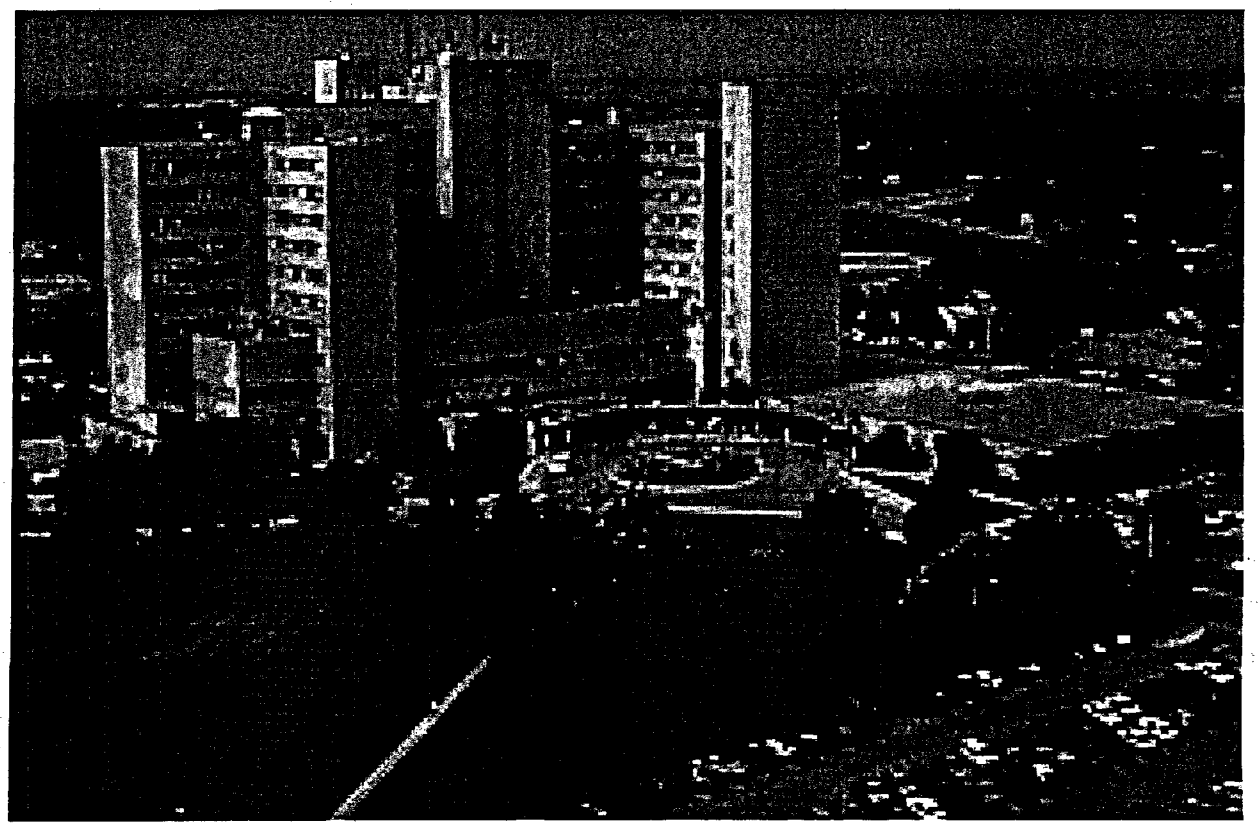
Alan J. Blotcky Reactor Facility
Omaha Veterans Administration Medical Center
Omaha, Nebraska

APPENDIX C



Purpose

To determine potential radionuclides in the area surrounding and outside the reactor pool liner (biological shield) of the Alan J. Blotcky Reactor Facility (AJBRF) at the Omaha Veterans Affairs Hospital in Omaha, Nebraska.

Scope

1) To determine the extent of activation of the following materials that may have become activated as a result of AJBRF operations:

    1) Concrete
    2) Al-6061
    3) Soil
    4) Epoxy
    5) Steel (Carbon)
    6) Graphite

Methodology

Activation studies were conducted using ANITA-2000. Two sets of ANITA-2000 computer runs were conducted.

The first set consisted of a single soil sample with a volume of 1 cubic centimeter exposed for 8 hours per day for 5 days at 18 kW. This set would show the short-term activation and decay associated with the soil nuclides.

The second set of ANITA-2000 runs consisted of long-term activation and decay of various materials associated with the reactor operations. This set of outputs would show the long-term activation and decay associated with these materials.

ANITA-2000 is a computer program that computes the radioactive inventory of a material subject to neutron irradiation, continuous or stepwise and provides activity, atomic density, decay heat, energy of decay gamma rays and ingestion hazard of each nuclide. It also provides total activity, decay heat, contact dose equivalent, gamma-ray spectra for the irradiated material, verses cooling time.

The flux neutron spectrum was used in each of the ANITA-2000 runs for the materials listed above. ANITA-2000 was run to simulate the activation (absorption of a neutron and subsequent transmutation into a radioactive isotope) of these materials. The AJBRF reactor operated safely from June 1959 to April 12, 1961 at 18 kW and at 20 kW from April 12, 1961 until November 5, 2001. The operating history of the ANITA-2000 simulation consisted of 8 hours per day, 5 days per week of continuous operation at the power level specified above. The ANITA-2000 output files for each of these materials are located in Attachment E.

For each decay time, the ANITA-2000 output provides activation information. This information consists of the radioactive isotope concentrations ($\mu Ci/cm^3$), energy spectrum ($MeV/cm^3/sec$) and particle spectrum ($photons/cm^3/sec$).

INPUT PARAMETERS

Source:	4.8×10^{11} neutrons/cm^2/sec (corresponding to 20 kW operation). SAR
Flux (Specimen Rack):	1.36×10^{11} neutrons/cm^2/sec (corresponding to 20 kW operation). SAR
Flux (Pneumatic Tube):	3.74×10^{11} neutrons/cm^2/sec (corresponding to 20 kW operation). SAR
Flux (Reactor Vessel-Side):	2.641×10^{7} neutrons/cm^2/sec (SAR, Appendix D-3)
Flux (Reactor Vessel-Bottom):	6.900×10^{6} neutrons/cm^2/sec (SAR, Appendix D-3)
Flux/watt (1eV to 10 MeV, 68 rod):	3.56×10^{7} neutrons/cm^2/sec (Table 28, Calculated Fluxes and Cross

Sections for Triga Reactors, GA-4361)

Flux/watt (0 eV to 1eV, 68 rod): 1.51×10^7 neutrons/cm^2/sec (Table 28, Calculated Fluxes and Cross Sections for Triga Reactors, GA-4361)

Alan J. Blotcky Reactor Facility operating history is shown in Table 1.

Material compositions are shown in Table 2.

The tally structure for ANITA-2000 (High energy to low energy) is shown in Table 3.

Table 3: ANITA-2000 Tally Structure

Energy (MeV)	1.49E+01	1.35E+01	1.22E+01	1.11E+01	1.00E+01	9.05E+00	8.19E+00	7.41E+00	6.70E+00	6.07E+00
5.49E+00	4.97E+00	4.49E+00	4.07E+00	3.68E+00	3.33E+00	3.01E+00	2.73E+00	2.47E+00	2.23E+00	
2.02E+00	1.83E+00	1.65E+00	1.50E+00	1.35E+00	1.22E+00	1.11E+00	1.00E+00	9.07E-01	8.21E-01	
7.43E-01	6.72E-01	6.08E-01	5.50E-01	4.98E-01	4.50E-01	4.08E-01	3.69E-01	3.34E-01	3.02E-01	
2.73E-01	2.47E-01	2.24E-01	2.02E-01	1.83E-01	1.66E-01	1.50E-01	1.36E-01	1.23E-01	1.11E-01	
8.65E-02	6.74E-02	5.25E-02	4.09E-02	3.18E-02	2.48E-02	1.93E-02	1.50E-02	1.17E-02	9.12E-03	
7.10E-03	5.53E-03	4.31E-03	3.35E-03	2.61E-03	2.03E-03	1.58E-03	1.23E-03	9.61E-04	7.49E-04	
5.83E-04	4.54E-04	3.54E-04	2.75E-04	2.14E-04	1.67E-04	1.30E-04	1.01E-04	7.89E-05	6.14E-05	
4.79E-05	3.73E-05	2.90E-05	2.26E-05	1.76E-05	1.37E-05	1.07E-05	8.32E-06	6.48E-06	5.04E-06	
3.93E-06	3.06E-06	2.38E-06	1.86E-06	1.45E-06	1.13E-06	8.76E-07	6.83E-07	5.32E-07	4.14E-07	

Results

Flux values were calculated based on the flux to watt factors of 3.56×10^7 neutrons/cm2/sec from Table 28, Calculated Fluxes and Cross Sections for Triga Reactors, GA-4361 for 1 electron volts (eV) to 10 million electron volts (MeV) with 68 rod and 1.51×10^7 neutrons/cm2/sec from Table 28, Calculated Fluxes and Cross Sections for Triga Reactors, GA- 4361 for 0eV to 1eV with 68 rods. The flux was then multiplied by 18,000 or 20,000 watts to obtain the total flux. The flux was then normalized to the appropriate flux level(s) listed in the ANITA-2000 Input Parameters (see Attachment A). These steps were repeated for all six flux spectrums. All six normalized flux spectrums were then inserted into the FL4.175 file (see Attachment B, Fluxes 2-6) of ANITA-2000.

Anita-2000 input cards were then prepared for the following materials (see Attachment C):
1) Concrete
2) Al-6061
3) Soil
4) Epoxy
5) Steel (Carbon)
6) Graphite

The structure of the ANITA-2000 input card is described in the ANITA-2000 users manual. The activation and cooldown times for the first ANITA-2000 computer run were based on a week of AJBRF operation (20 kW at 8 hours per day for 5 days). The ANITA-2000 output file for soil is in Attachment E.

Figure 1 shows the results of soil activation in bequerals per gram (Bq/g) based on an AJBRF operation (20 kW at 8 hours per day for 5 days). Figure 1 shows the activation cycle of 8 hours where the activity increases due to neutron activation. The next part of the curve shows the decay cycle of 16 hours. Five activation and decay cycles are shown. Note, that the fifth decay cycle reflects a decay time of 64 hours.

Table 1: Alan J. Blotcky Reactor Facility Operating History

Year	KW-hrs	Activation Seconds	Activation Hours	Decay Seconds	Annual Report Dates

Table 1: Alan J. Blotcky Reactor Facility Operating History

Year	KW-hrs	Activation Seconds	Activation Hours	Decay Seconds	Annual Report Dates
1959	12649	2.52980E+06	702.7222	2.90062E+07	
1960	12649	2.52980E+06	702.7222	2.90062E+07	
1961	12649	2.27682E+06	632.45	2.92592E+07	
1962	12649	2.27682E+06	632.45	2.92592E+07	
1963	12649	2.27682E+06	632.45	2.92592E+07	
1964	12649	2.27682E+06	632.45	2.92592E+07	
1965	12649	2.27682E+06	632.45	2.92592E+07	
1966	12649	2.27682E+06	632.45	2.92592E+07	
1967	12649	2.27682E+06	632.45	2.92592E+07	
1968	12649	2.27682E+06	632.45	2.92592E+07	
1969	12649	2.27682E+06	632.45	2.92592E+07	
1970	12649	2.27682E+06	632.45	2.92592E+07	
1971	12649	2.27682E+06	632.45	2.92592E+07	
1972	12649	2.27682E+06	632.45	2.92592E+07	
1973	12649	2.27682E+06	632.45	2.92592E+07	
1974	12649	2.27682E+06	632.45	2.92592E+07	
1975	12649	2.27682E+06	632.45	2.92592E+07	7/1/74 to 6/30/75
1976	12649	2.27682E+06	632.45	2.92592E+07	7/1/75 to 6/30/76
1977	12649	2.27682E+06	632.45	2.92592E+07	7/1/76 to 6/30/77
1978	12649	2.27682E+06	632.45	2.92592E+07	7/1/77 to 6/30/78
1979	18390	3.31020E+06	919.5	2.82258E+07	7/1/78 to 6/30/79
1980	15700	2.82600E+06	785	2.87100E+07	7/1/79 to 6/30/80
1981	11900	2.14200E+06	595	2.93940E+07	7/1/80 to 6/30/81
1982	11800	2.12400E+06	590	2.94120E+07	7/1/81 to 6/30/82
	7670	1.38060E+06	383.5	3.01554E+07	7/1/82 to 6/30/83
1983	3829.61	6.89330E+05	191.4805	3.08467E+07	7/1/83 to 12/31/83
1984	13219.2	2.37945E+06	660.9595	2.91565E+07	
1985	13614.2	2.45055E+06	680.709	2.90854E+07	
1986	23244.2	4.18396E+06	1162.211	2.73520E+07	
1987	17559.4	3.16070E+06	877.9715	2.83753E+07	
1988	23838.6	4.29096E+06	1191.932	2.72450E+07	
1989	13193	2.37474E+06	659.6495	2.91613E+07	
1990	9323.7	1.67827E+06	466.185	2.98577E+07	
1991	8816.8	1.58702E+06	440.84	2.99490E+07	
1992	8104.72	1.45885E+06	405.236	3.00772E+07	
1993	12649	2.27682E+06	632.45	2.92592E+07	
1994	12649	2.27682E+06	632.45	2.92592E+07	
1995	10000.2	1.80003E+06	500.0095	2.97360E+07	
1996	12649	2.27682E+06	632.45	2.92592E+07	
1997	12649	2.27682E+06	632.45	2.92592E+07	
1998	431.4	7.76520E+04	21.57	3.14583E+07	
1999	515.47	9.27846E+04	25.7735	3.14432E+07	
2000	218.7	3.93660E+04	10.935	3.14966E+07	
2001	62.9	1.13220E+04	3.145	3.15247E+07	

Table 1: Alan J. Blotcky Reactor Facility Operating History

Year	KW-hrs	Activation Seconds	Activation Hours	Decay Seconds	Annual Report Dates
2002		0.00000E+00	0	3.15360E+07	
Total	515008	9.32074E+07	25890.95		

Table 2: Material Compositions

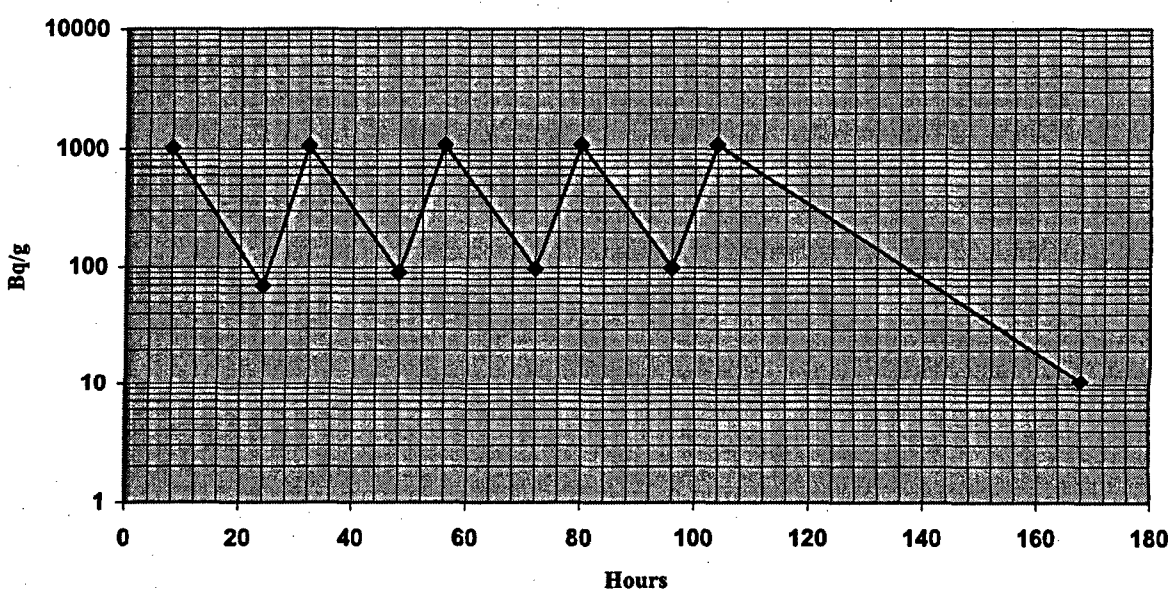
Element	Rebar[1] ρ=8.03 g/cm³	Concrete[2] ρ =2.35 g/cm³	Carbon Steel ρ =7.92 g/cm³	Aluminum Clad ρ =2.70 g/cm³	Epoxy ρ =1.01 g/cm³	Graphite ρ =2.62 g/cm³	Soil ρ =2.62 g/cm³
H	-	-	-	-	3.0189	-	-
C	-	-	0.15	-	21.5845	100	-
O	-	-	-	-	-	-	46.60
Li	0.00000010	-	-	-	-	-	-
N	0.00007700	-	-	-	-	-	-
Na	0.00000720	0.01772000	-	-	-	-	2.83
Al	0.00018000	21.10000000	-	-	-	-	-
P	-	-	0.04	-	0.8	-	2.59
S	-	2.12000000	0.20	-	-	-	-
K	0.00004000	3.75000000	-	-	-	-	-
Ca	0.00005000	80.18000000	-	-	0.1080	-	3.63
Cl	-	-	-	-	21.2368	-	-
Sc	0.00000010	0.00003660	-	-	-	-	-
Ti	0.00070000	0.01046000	-	0.15	18.1239	-	-
V	0.00020100	0.00032300		-	-	-	-
Cr	0.13100000	0.00027400	-	0.2	-	-	-
Mg	-	-	-	1.0	2.86342	-	2.09
Mn	0.94000000	0.00125000	0.36	-	-	-	-
Fe	98.00000000	9.64000000	99.20	0.70	0.0423	-	5
Co	0.00010300	0.00005660	-	-	-	-	-
Ni	0.00107000	0.00017500	-	-	-	-	-
Al	-	-	-	96.68	-	-	8.13
Si	-	-	-	0.60	4.3454	-	27.72
Cu	0.00298000	0.00013400	-	0.27	-	-	-
Zn	0.00006700	0.00021400	-	0.25	-	-	-
Ga	-	0.00005490	-	-	-	-	-
Sn	-	-	-	0.15	-	-	-
As	0.00012900	0.00005610	-	-	-	-	-
Br	0.00000110	0.00001550	-	-	-	-	-
Rb	0.00002000	0.00018200	-	-	-	-	-
Sr	0.00000040	0.00150600	-	-	-	-	-
Y	-	0.00009470	-	-	-	-	-
Zr	-	0.00036900	-	-	-	-	-
Nb	-	0.00003330	-	-	-	-	-
Mo	0.00021800	-	-	-	-	-	-
Ag	0.00000420	-	-	-	-	-	-
Sb	0.00004700	0.00000629	-	-	-	-	-
Cs	0.00000060	-	-	-	-	-	-

Table 2: Material Compositions

Element	Rebar[1] ρ=8.03 g/cm³	Concrete[2] ρ =2.35 g/cm³	Carbon Steel ρ =7.92 g/cm³	Aluminum Clad ρ =2.70 g/cm³	Epoxy ρ =1.01 g/cm³	Graphite ρ =2.62 g/cm³	Soil ρ =2.62 g/cm³
Ba	0.00040000	0.00202400	-	-	-	-	-
La	0.00000030	-	-	-	-	-	-
Sm	0.00000004	0.00001630	-	-	-	-	-
Eu	0.00000009	0.00000355	-	-	-	-	-
Ho	0.00000004	-	-	-	-	-	-
Lu	0.00000060	-	-	-	-	-	-
Hf	0.00000080	-	-	-	-	-	-
Ta	0.00000060	0.00000269	-	-	-	-	-
Pb	-	0.00007210	-	-	-	-	-
Th	-	0.00002640	-	-	-	-	-
W	0.00001500	0.00000626	-	-	-	-	-
U	0.00000090	0.00001970	-	-	-	-	-

1 - Rebar Composition Summary from Table 4.13 of Long Lived Activation Products in Reactor Materials, NUREG/CR-3474
2 - Concrete Ingredients (Enrico Fermo) Elemental Concentrations from Table 4.22 of Long Lived Activation Products in Reactor Materials, NUREG/CR-3474

Figure 1: Short Term Soil Activity(Bq/g)



The activation and cooldown times for the second set of ANITA-2000 computer runs are based on long term AJBRF operation (20 kW at 8 hours per day, 5 days per week for the operating life of the facility) or 9.32074E+07 seconds. These ANITA-2000 runs were used to determine the potential radionuclides in the area surrounding and outside the reactor pool liner (biological shield) of the AJBRF. The ANITA-2000 output files are shown in Table 4. The 1st column of Table 4 shows the attachment. The 2nd column of Table 4 shows the description of the attachment.

Table 4: ANITA-2000 Output Files

Attachment	Description
E	ANITA Output Soil Short Term Exposure

F	ANITA Output Soil Long Term Exposure
G	ANITA Output Concrete Long Term Exposure – Multi Year Exposure
G1	ANITA Output Concrete Long Term Exposure
H	ANITA Output for Rebar Based on Long Term Exposure
I	ANITA Output for Al-6061 Based on Long Term Exposure
J	ANITA Output for Epoxy Based on Long Term Exposure
K	ANITA Output for Graphite Based on Long Term Exposure
L	ANITA Output for Carbon Steel Based on Long Term Exposure

The nuclides present for each attachment listed in Table 4 are summarized in Attachment M for the long-term activation and decay. Table 5 shows the decayed nuclides from Attachment M and represents the radionuclides in the area surrounding and outside the reactor pool liner (biological shield) of the AJBRF. The 1st column of Table 5 shows the nuclides present after long-term activation and decay. The 2nd column of Table 5 shows the number of atoms per cubic centimeter (cm) for the nuclide. The 3rd column of Table 5 shows the watts per cubic centimeter for each nuclide. The 4th column of Table 5 shows the Joules per cubic centimeter. The 5th column of Table 5 shows the energy (MeV) per gram of material. The 6th column of Table 5 shows the nuclide activity in bequerals (Bq) per cubic centimeter. The 7th column of Table 5 shows the nuclide activity in curies (Ci) per cubic centimeter.

Table 5: Radionuclides from Long-Term Activation

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Soil Short Term						
Na24	1820400	1.75E-11	1.36E-06	37.107	23.393	6.32E-10
K40	1.21E+17	2.26E-13	13199	0.1259	2.0823	5.63E-11
K42	134750	5.76E-13	3.7E-08	0.23901	2.0967	5.67E-11
Total		1.83E-11	13198.57	37.471	27.572	7.45E-10
Soil Long Term 1 sec.						
Na 24	7.65E+07	7.37E-10	5.73E-05	1.56E+03	9.83E+02	2.66E-08
Na 24ml	2.16E+01	5.75E-11	1.68E-12	1.34E+02	7.42E+02	2.01E-08
Mg 27	3.09E+03	9.64E-13	7.90E-10	1.29E+00	3.78E+00	1.02E-10
Al 28	1.56E+05	3.90E-10	7.56E-08	5.52E+02	8.06E+02	2.18E-08
Si 31	1.13E+07	7.89E-11	1.07E-06	2.86E-01	8.27E+02	2.23E-08
Ar 37	1.12E+07	1.10E-15	4.81E-09	3.19E-04	2.57E+00	6.94E-11
K 40	1.21E+17	2.26E-13	1.32E+04	1.26E-01	2.08E+00	5.63E-11
K 42	9.96E+06	4.25E-11	2.73E-06	1.77E+01	1.55E+02	4.19E-09
Ca 45	4.44E+08	2.71E-13	5.50E-06	0.00E+00	2.19E+01	5.92E-10
Ca 49	1.59E+03	1.37E-12	1.03E-09	2.57E+00	2.11E+00	5.71E-11
Sc 49	1.05E+04	2.77E-13	1.37E-09	8.12E-04	2.11E+00	5.71E-11
Fe 55	8.45E+09	6.41E-14	7.98E-06	4.36E-02	6.79E+01	1.83E-09
Fe 59	3.94E+07	1.49E-12	8.25E-06	3.25E+00	7.10E+00	1.92E-10
Soil Long Term 16.7 sec.						
Na 24	7.55E+07	7.27E-10	5.66E-05	1.54E+03	9.71E+02	2.62E-08
Mg 27	9.13E+02	2.84E-13	2.33E-10	3.82E-01	1.11E+00	3.01E-11
Al 28	9.02E+02	2.25E-12	4.36E-10	3.19E+00	4.65E+00	1.26E-10
Si 31	1.05E+07	7.33E-11	9.98E-07	2.66E-01	7.68E+02	2.08E-08
Ar 37	1.12E+07	1.10E-15	4.81E-09	3.19E-04	2.57E+00	6.93E-11
K 40	1.21E+17	2.26E-13	1.32E+04	1.26E-01	2.08E+00	5.63E-11
K 42	9.81E+06	4.19E-11	2.69E-06	1.74E+01	1.53E+02	4.12E-09
Ca 45	4.44E+08	2.71E-13	5.50E-06	0.00E+00	2.19E+01	5.92E-10
Ca 49	4.24E+02	3.63E-13	2.74E-10	6.84E-01	5.61E-01	1.52E-11
Sc 49	9.58E+03	2.54E-13	1.26E-09	7.44E-04	1.93E+00	5.23E-11

Table 5: Radionuclides from Long-Term Activation

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Fe 55	8.45E+09	6.41E-14	7.98E-06	4.36E-02	6.79E+01	1.83E-09
Fe 59	3.94E+07	1.49E-12	8.25E-06	3.25E+00	7.10E+00	1.92E-10
Total		8.48E-10	1.32E+04	1.57E+03	2.00E+03	5.41E-08
Soil Long Term 11.6 d						
Ar 37	8.91E+06	8.76E-16	3.83E-09	2.54E-04	2.04E+00	5.52E-11
K 40	1.21E+17	2.26E-13	1.32E+04	1.26E-01	2.08E+00	5.63E-11
Ca 45	4.23E+08	2.58E-13	5.23E-06	0.00E+00	2.09E+01	5.64E-10
Fe 55	8.39E+09	6.36E-14	7.91E-06	4.33E-02	6.73E+01	1.82E-09
Fe 59	3.29E+07	1.24E-12	6.89E-06	2.71E+00	5.93E+00	1.60E-10
Total		1.79E-12	1.32E+04	2.88E+00	9.83E+01	2.66E-09
Soil Long Term 31.7 y						
K 40	1.21E+17	2.26E-13	1.32E+04	1.26E-01	2.08E+00	5.63E-11
Total		2.26E-13	1.32E+04	1.26E-01	2.08E+00	5.63E-11
Concrete Long Term 1 sec						
Na 24	4.33E+05	4.17E-12	3.24E-07	9.77E+00	5.56E+00	1.50E-10
Al 28	3.65E+05	9.10E-10	1.76E-07	1.43E+03	1.88E+03	5.08E-08
P 33	1.11E+06	4.31E-15	1.37E-08	0.00E+00	3.52E-01	9.51E-12
S 35	5.27E+07	3.78E-14	4.13E-07	0.00E+00	4.84E+00	1.31E-10
Ar 37	1.61E+08	1.58E-14	6.92E-08	5.08E-03	3.69E+01	9.97E-10
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-01	2.73E+00	7.36E-11
K 42	1.30E+07	5.57E-11	3.58E-06	2.56E+01	2.03E+02	5.48E-09
Ca 41	7.63E+11	8.56E-17	4.01E-04	3.03E-05	1.63E-01	4.40E-12
Ca 45	6.39E+09	3.90E-12	7.91E-05	0.00E+00	3.15E+02	8.52E-09
Ca 47	2.62E+05	1.04E-13	5.89E-08	2.09E-01	4.63E-01	1.25E-11
Ca 49	2.29E+04	1.96E-11	1.48E-08	4.09E+01	3.03E+01	8.20E-10
Sc 47	1.93E+05	2.01E-14	8.38E-09	2.14E-02	4.63E-01	1.25E-11
Sc 49	1.50E+05	3.98E-12	1.97E-08	1.29E-02	3.04E+01	8.21E-10
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-11	3.28E-11	8.86E-22
V 52	9.24E+01	1.15E-13	3.72E-11	1.76E-01	2.85E-01	7.70E-12
Mn 56	7.78E+04	2.35E-12	3.14E-08	4.20E+00	5.81E+00	1.57E-10
Fe 55	1.47E+10	1.12E-13	1.39E-05	8.41E-02	1.18E+02	3.20E-09
Fe 59	6.86E+07	2.59E-12	1.44E-05	6.26E+00	1.24E+01	3.35E-10
Co 60	9.49E+07	1.65E-13	3.95E-05	4.21E-01	3.95E-01	1.07E-11
Co 60m1	6.23E+02	7.02E-15	6.36E-12	2.03E-03	6.88E-01	1.86E-11
As 76	1.10E+05	1.93E-13	2.64E-08	1.49E-01	8.06E-01	2.18E-11
Br 80	4.37E+02	3.68E-14	5.61E-11	9.41E-03	2.87E-01	7.76E-12
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+00	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+00	5.85E-05	1.58E-15
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+00	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+00	2.86E-09	7.72E-20
Sm153	4.05E+05	8.86E-14	2.15E-08	4.40E-02	1.67E+00	4.51E-11
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-06	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-05	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-06	5.80E-03	1.57E-13
U239	7.48E+02	2.72E-14	5.53E-11	8.08E-03	3.68E-01	9.95E-12

Table 5: Radionuclides from Long-Term Activation

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Np239	1.08E+05	2.63E-14	7.71E-09	2.86E-02	3.68E-01	9.95E-12
Total		1.00E-09	1.85E+04	1.51E+03	2.65E+03	7.17E-08
Concrete Long Term 16.7 m						
Na 24	4.28E+05	4.12E-12	3.20E-07	9.64E+00	5.49E+00	1.48E-10
Al 28	2.12E+03	5.28E-12	1.02E-09	8.27E+00	1.09E+01	2.95E-10
P 33	1.11E+06	4.31E-15	1.37E-08	0.00E+00	3.52E-01	9.50E-12
S35	5.27E+07	3.78E-14	4.13E-07	0.00E+00	4.84E+00	1.31E-10
Ar 37	1.61E+08	1.58E-14	6.91E-08	5.08E-03	3.69E+01	9.97E-10
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-01	2.73E+00	7.36E-11
K 42	1.28E+07	5.48E-11	3.52E-06	2.52E+01	2.00E+02	5.40E-09
Ca 41	7.63E+11	8.56E-17	4.01E-04	3.03E-05	1.63E-01	4.40E-12
Ca 45	6.39E+09	3.90E-12	7.90E-05	0.00E+00	3.15E+02	8.52E-09
Ca 47	2.61E+05	1.04E-13	5.88E-08	2.08E-01	4.62E-01	1.25E-11
Ca 49	6.09E+03	5.22E-12	3.94E-09	1.09E+01	8.07E+00	2.18E-10
Sc 47	1.93E+05	2.01E-14	8.38E-09	2.14E-02	4.63E-01	1.25E-11
Sc 49	1.38E+05	3.65E-12	1.81E-08	1.18E-02	2.78E+01	7.52E-10
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-11	3.28E-11	8.86E-22
Mn 56	7.22E+04	2.18E-12	2.92E-08	3.90E+00	5.39E+00	1.46E-10
Fe 55	1.47E+10	1.12E-13	1.39E-05	8.41E-02	1.18E+02	3.20E-09
Fe 59	6.86E+07	2.59E-12	1.44E-05	6.26E+00	1.24E+01	3.34E-10
Co 60	9.49E+07	1.65E-13	3.95E-05	4.21E-01	3.95E-01	1.07E-11
As 76	1.09E+05	1.92E-13	2.62E-08	1.48E-01	8.01E-01	2.16E-11
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+00	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+00	5.85E-05	1.58E-15
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+00	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+00	2.86E-09	7.72E-20
Sm153	4.03E+05	8.82E-14	2.14E-08	4.38E-02	1.66E+00	4.49E-11
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-06	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-05	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-06	5.80E-03	1.57E-13
Np239	1.08E+05	2.62E-14	7.70E-09	2.85E-02	3.68E-01	9.95E-12
Total		8.2803E-11 1	8.48E+03	6.53E+01	7.52E+02	2.03E-08
Concrete Long Term 11.6 d						
P 33	8.12E+05	3.15E-15	9.96E-09	0.00E+00	2.56E-01	6.93E-12
S 35	4.81E+07	3.45E-14	3.76E-07	0.00E+00	4.41E+00	1.19E-10
Ar 37	1.28E+08	1.26E-14	5.50E-08	4.04E-03	2.93E+01	7.93E-10
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-01	2.73E+00	7.36E-11
Ca 41	7.63E+11	8.56E-17	4.01E-04	3.03E-05	1.63E-01	4.40E-12
Ca 45	6.08E+09	3.71E-12	7.52E-05	0.00E+00	3.00E+02	8.11E-09
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-11	3.28E-11	8.86E-22
Fe 55	1.46E+10	1.11E-13	1.38E-05	8.34E-02	1.17E+02	3.17E-09
Fe 59	5.73E+07	2.16E-12	1.20E-05	5.23E+00	1.03E+01	2.79E-10
Co 60	9.45E+07	1.64E-13	3.94E-05	4.19E-01	3.94E-01	1.06E-11
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+00	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+00	5.85E-05	1.58E-15

Table 5: Radionuclides from Long-Term Activation

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+00	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+00	2.86E-09	7.72E-20
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-06	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-05	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-06	5.80E-03	1.57E-13
Total		6.5050E-12 1	8.48E+03	5.92E+00	4.65E+02	1.26E-08
Concrete Long Term 31.7 y						
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-01	2.73E+00	7.36E-11
Ca 41	7.63E+11	8.55E-17	4.01E-04	3.03E-05	1.63E-01	4.40E-12
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-11	3.28E-11	8.86E-22
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+00	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+00	5.85E-05	1.58E-15
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+00	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+00	2.86E-09	7.72E-20
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-06	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-05	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-06	5.80E-03	1.57E-13
Total		3.0527E-13 1	8.48E+03	1.82E-01	2.90E+00	7.85E-11
Concrete 338.6 d						
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-01	2.73E+00	7.36E-11
Ca 45	1.62E+08	9.88E-14	2.00E-06	0.00E+00	7.99E+00	2.16E-10
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-11	3.28E-11	8.86E-22
Fe 55	4.00E+08	3.03E-15	3.78E-07	2.29E-03	3.22E+00	8.69E-11
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+00	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+00	5.85E-05	1.58E-15
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+00	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+00	2.86E-09	7.72E-20
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-06	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-05	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-06	5.80E-03	1.57E-13
Total		4.0702E-13 1	8.48E+03	1.85E-01	1.39E+01	3.77E-10
Rebar Long Term 1 sec						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-06	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-12	7.03E-11	1.90E-21
Cr 51	1.66E+08	2.83E-13	9.76E-07	1.97E-01	4.82E+01	1.30E-09
Cr 55	2.46E+02	1.42E-13	4.35E-11	4.25E-04	8.04E-01	2.17E-11
Mn 56	2.00E+08	6.03E-09	8.08E-05	3.16E+03	1.49E+04	4.03E-07
Fe 55	5.12E+11	3.88E-12	4.83E-04	8.55E-01	4.11E+03	1.11E-07
Fe 59	2.38E+09	9.00E-11	4.99E-04	6.37E+01	4.30E+02	1.16E-08
Co 60	5.56E+08	9.66E-13	2.32E-04	7.23E-01	2.32E+00	6.27E-11
Co 60m1	3.66E+03	4.12E-14	3.73E-11	3.48E-03	4.03E+00	1.09E-10
Cu 64	8.21E+05	6.30E-13	4.16E-08	2.95E-01	1.24E+01	3.36E-10
Cu 66	1.05E+03	4.38E-13	1.93E-10	2.42E-02	2.37E+00	6.41E-11
As 76	8.10E+05	1.42E-12	1.94E-07	3.20E-01	5.92E+00	1.60E-10
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+00	1.44E-03	3.90E-14

Table 5: Radionuclides from Long-Term Activation

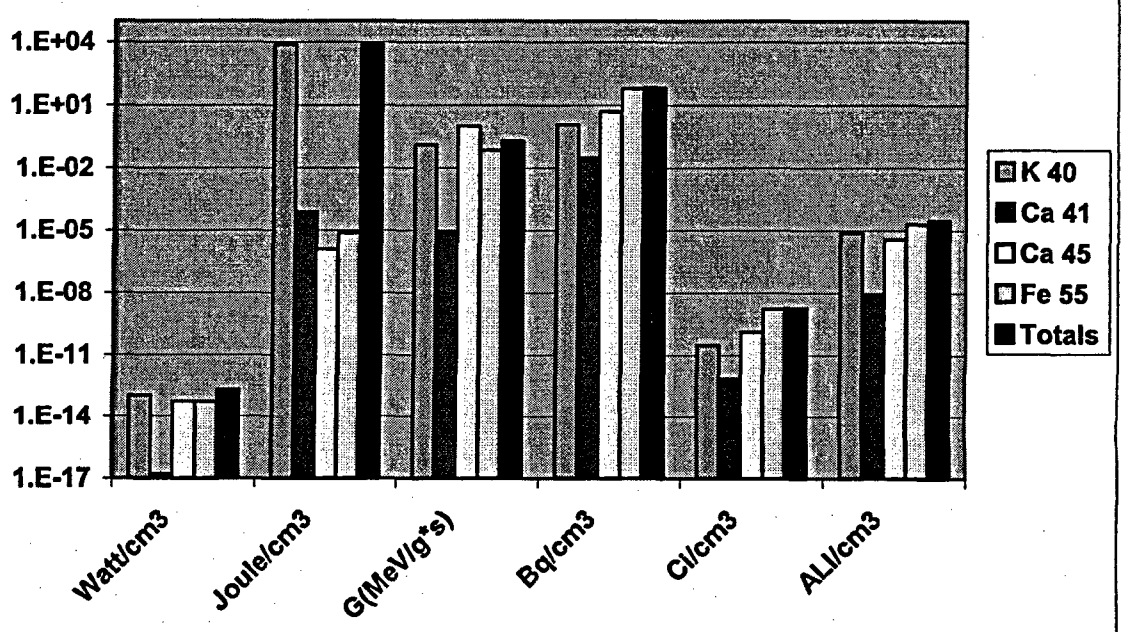
Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Ag110	4.67E+01	2.54E-13	9.05E-12	5.67E-03	1.31E+00	3.54E-11
Sb122	8.44E+05	4.03E-13	1.36E-07	1.37E-01	2.51E+00	6.79E-11
Sb124	8.67E+06	4.15E-13	3.12E-06	2.68E-01	1.15E+00	3.12E-11
Total		6.1317E-09 1	2.37E+01	3.23E+03	1.95E+04	5.28E-07
Rebar Long Term 11.6 d						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-06	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-12	7.03E-11	1.90E-21
Cr 51	1.25E+08	2.12E-13	7.31E-07	1.47E-01	3.61E+01	9.75E-10
Fe 55	5.08E+11	3.85E-12	4.79E-04	8.48E-01	4.08E+03	1.10E-07
Fe 59	1.99E+09	7.52E-11	4.17E-04	5.32E+01	3.59E+02	9.70E-09
Co 60	5.54E+08	9.62E-13	2.31E-04	7.20E-01	2.31E+00	6.24E-11
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+00	1.44E-03	3.90E-14
Sb124	7.59E+06	3.63E-13	2.73E-06	2.34E-01	1.01E+00	2.73E-11
Total		8.06E-11	1.24E+02	5.51E+01	4.48E+03	1.21E-07
Rebar Long Term 31.7 y						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-06	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-12	7.03E-11	1.90E-21
Fe 55	1.66E+08	1.26E-15	1.57E-07	2.78E-04	1.34E+00	3.61E-11
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+00	1.44E-03	3.90E-14
Total		1.2902E-15 1	2.37E+01	2.80E-04	1.34E+00	3.62E-11
Rebar 26.68 d						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-06	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-12	7.03E-11	1.90E-21
Cr 51	8.04E+07	1.36E-13	4.71E-07	9.49E-02	2.33E+01	6.29E-10
Cr 55	2.47E+02	1.42E-13	4.36E-11	4.26E-04	8.07E-01	2.18E-11
Mn 56	2.00E+08	6.03E-09	8.08E-05	3.16E+03	1.49E+04	4.03E-07
Fe 55	1.76E+10	1.33E-13	1.66E-05	2.94E-02	1.41E+02	3.82E-09
Fe 59	8.03E+08	3.03E-11	1.68E-04	2.14E+01	1.45E+02	3.91E-09
Co 60ml	3.66E+03	4.12E-14	3.74E-11	3.48E-03	4.04E+00	1.09E-10
Cu 64	8.21E+05	6.30E-13	4.16E-08	2.95E-01	1.24E+01	3.36E-10
Cu 66	1.05E+03	4.39E-13	1.94E-10	2.42E-02	2.38E+00	6.42E-11
As 76	8.10E+05	1.42E-12	1.94E-07	3.20E-01	5.92E+00	1.60E-10
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+00	1.44E-03	3.90E-14
Ag110	4.80E+01	2.61E-13	9.30E-12	5.83E-03	1.35E+00	3.64E-11
Sb122	8.43E+05	4.03E-13	1.35E-07	1.37E-01	2.51E+00	6.78E-11
Total	8.58E+22	6.0671E-09 1	2.37E+01	3.18E+03	1.53E+04	4.12E-07
Rebar 338.6 d						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-06	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-12	7.03E-11	1.90E-21
Fe 55	1.39E+10	1.05E-13	1.31E-05	2.32E-02	1.12E+02	3.02E-09
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+00	1.44E-03	3.90E-14
Total		1.0545E-13 1	2.37E+01	2.32E-02	1.12E+02	3.02E-09
Aluminum 31.7 y						
Fe 55	2.06E+09	1.56E-14	1.94E-06	1.02E-02	1.65E+01	4.47E-10
Ni 63	6.07E+10	3.70E-14	1.67E-04	0.00E+00	1.35E+01	3.64E-10

Table 5: Radionuclides from Long-Term Activation

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Total		5.26E-14	1.69E-04	1.02E-02	3.00E+01	8.11E-10
Epoxy 31.7 y						
Cl 36	6.06E+12	1.93E-14	2.66E-01	9.49E-06	4.41E-01	1.19E-11
Total	6.06E+12	1.93E-14	2.66E-01	9.49E-06	4.41E-01	1.19E-11
Graphite 31.7 y						
C 14	1.50E+13	4.57E-13	1.19E-01	0.00E+00	5.77E+01	1.56E-09
Total		4.57E-13	1.19E-01	0.00E+00	5.77E+01	1.56E-09

Attachment D was used to calculate the soil penetrating flux for the AJBRF reactor using the methodology presented in Appendix D of the Safety Analysis Report (SAR). The results of the long-term soil activation are shown in Figure 2.

Figure 2: Soil Activation Parameters - Long Term Radionuclides



The results of the soil penetrating flux calculation were used to estimate the soil activation. From Table 2 of Attachment D, the soil penetrating flux is reduced by a factor of 5.986E-01 for every 10 cm of soil. An ANITA-2000 run was performed to verify this reduction factor. The flux was reduced by a factor of 5.986E-01 in the input file. The ANITA-2000 output file for the reduced soil flux is in Attachment D1. Figure 3 shows the Soil Activation Parameters – Long Term Radionuclides every 10 cm out to 100 cm from the reactor.

Table 6 shows a sketch of the core, vessel, cement, and soil (Note: Not to scale) and the Concrete Flux vs Distance from the AJBRF Core. The data used in Table 6 for the Concrete Flux vs Distance table is from Attachment D, Table 4, where the concrete flux at 4' and 4.5' was determined based on the methodology from Appendix D of the SAR. The activity in the concrete at 4' and 4.5' above the core can be estimated by comparing the activity at the core centerline that was determined by activation analysis.

Conclusion

Based on activation analysis, the radionuclides in the area surrounding and outside the reactor pool liner (biological shield) of the AJBRF reactor are listed in Table 5 under soil, concrete, and rebar.

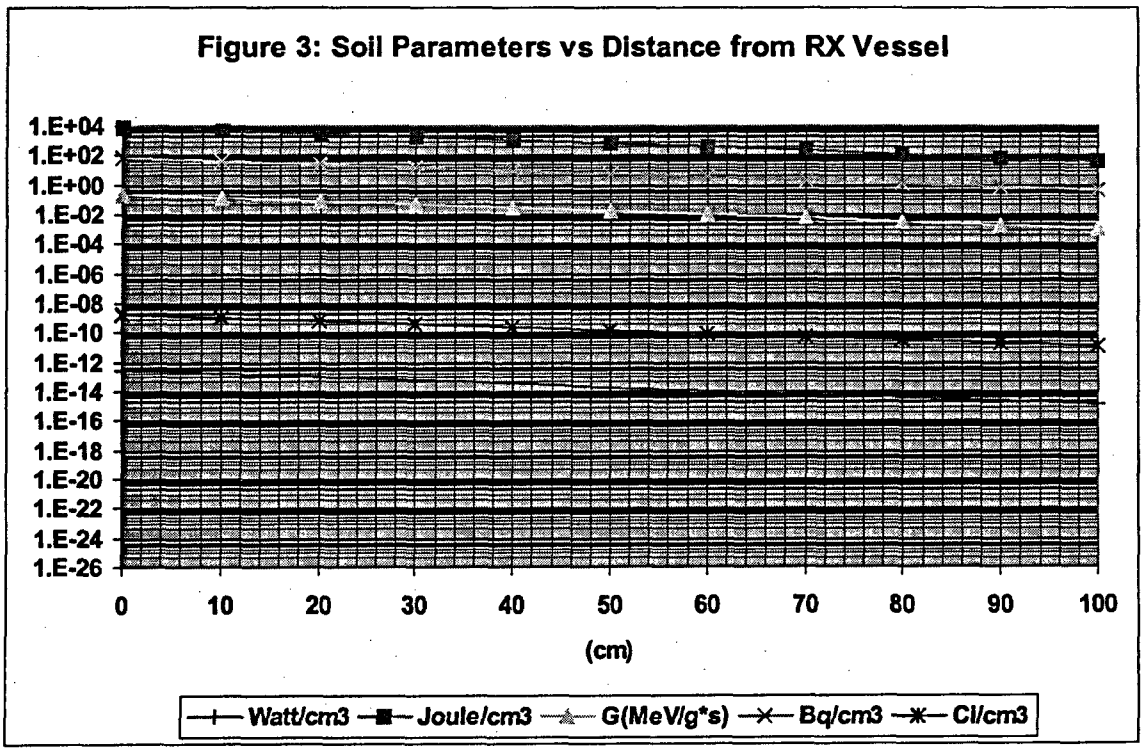
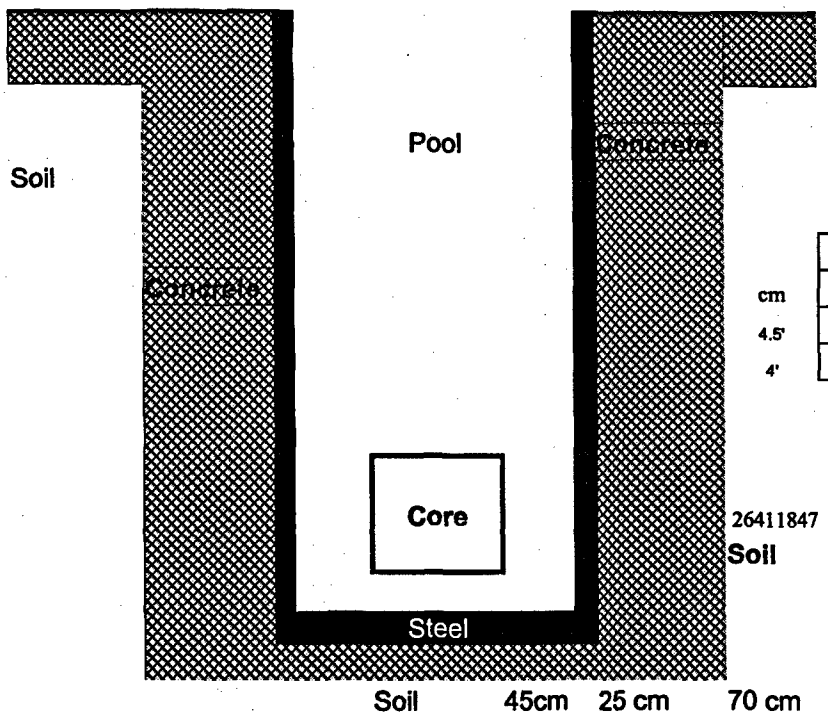


Table 6: AJBRF Geometry and Concrete Flux vs Distance from Core



Concrete Flux vs Distance from Core

cm	46	48.54	51.08	53.62	58.7	61.4	63.78	66.32	68.86	70	70.64	
4.5'	5638	2730	1322	640	310	150	73	35	17	8	6	Distance above core centerline
4'	26494	13792	7180	3738	1946	1013	527	274	143	74	55	

Note: The activity of the concrete at 4' & 4.5' can be compared to the activity of the concrete adjacent to the core.

Purpose

To determine potential radionuclides in the area surrounding and outside the reactor pool liner (biological shield) of the Alan J. Blotcky Reactor Facility (AJBRF) at the Omaha Veterans Affairs Hospital in Omaha, Nebraska.

Scope

1) To determine the extent of activation of the following materials that may have become activated as a result of AJBRF operations:

    1) Concrete
    2) Al-6061
    3) Soil
    4) Epoxy
    5) Steel (Carbon)
    6) Graphite

Methodology

Activation studies were conducted using ANITA-2000. Two sets of ANITA-2000 computer runs were conducted.

The first set consisted of a single soil sample with a volume of 1 cubic centimeter exposed for 8 hours per day for 5 days at 18 kW. This set would show the short-term activation and decay associated with the soil nuclides.

The second set of ANITA-2000 runs consisted of long-term activation and decay of various materials associated with the reactor operations. This set of outputs would show the long-term activation and decay associated with these materials.

ANITA-2000 is a computer program that computes the radioactive inventory of a material subject to neutron irradiation, continuous or stepwise and provides activity, atomic density, decay heat, energy of decay gamma rays and ingestion hazard of each nuclide. It also provides total activity, decay heat, contact dose equivalent, gamma-ray spectra for the irradiated material, verses cooling time.

The flux neutron spectrum was used in each of the ANITA-2000 runs for the materials listed above. ANITA-2000 was run to simulate the activation (absorption of a neutron and subsequent transmutation into a radioactive isotope) of these materials. The AJBRF reactor operated safely from June 1959 to April 12, 1961 at 18 kW and at 20 kW from April 12, 1961 until November 5, 2001. The operating history of the ANITA-2000 simulation consisted of 8 hours per day, 5 days per week of continuous operation at the power level specified above. The ANITA-2000 output files for each of these materials are located in Attachment E.

For each decay time, the ANITA-2000 output provides activation information. This information consists of the radioactive isotope concentrations ($\mu Ci/cm^3$), energy spectrum ($MeV/cm^3/sec$) and particle spectrum ($photons/cm^3/sec$).

INPUT PARAMETERS

Source:	4.8×10^{11} neutrons/cm^2/sec (corresponding to 20 kW operation). SAR
Flux (Specimen Rack):	1.36×10^{11} neutrons/cm^2/sec (corresponding to 20 kW operation). SAR
Flux (Pneumatic Tube):	3.74×10^{11} neutrons/cm^2/sec (corresponding to 20 kW operation). SAR
Flux (Reactor Vessel-Side):	2.641×10^{7} neutrons/cm^2/sec (SAR, Appendix D-3)
Flux (Reactor Vessel-Bottom):	6.900×10^{6} neutrons/cm^2/sec (SAR, Appendix D-3)
Flux/watt (1eV to 10 MeV, 68 rod):	3.56×10^{7} neutrons/cm^2/sec (Table 28, Calculated Fluxes and Cross

Sections for Triga Reactors, GA-4361)

Flux/watt (0 eV to 1eV, 68 rod): 1.51×10^7 neutrons/cm^2/sec (Table 28, Calculated Fluxes and Cross Sections for Triga Reactors, GA-4361)

Alan J. Blotcky Reactor Facility operating history is shown in Table 1.

Material compositions are shown in Table 2.

The tally structure for ANITA-2000 (High energy to low energy) is shown in Table 3.

Table 3: ANITA-2000 Tally Structure

Energy (MeV)	1.49E+01	1.35E+01	1.22E+01	1.11E+01	1.00E+01	9.05E+00	8.19E+00	7.41E+00	6.70E+00	6.07E+00
5.49E+00	4.97E+00	4.49E+00	4.07E+00	3.68E+00	3.33E+00	3.01E+00	2.73E+00	2.47E+00	2.23E+00	
2.02E+00	1.83E+00	1.65E+00	1.50E+00	1.35E+00	1.22E+00	1.11E+00	1.00E+00	9.07E-01	8.21E-01	
7.43E-01	6.72E-01	6.08E-01	5.50E-01	4.98E-01	4.50E-01	4.08E-01	3.69E-01	3.34E-01	3.02E-01	
2.73E-01	2.47E-01	2.24E-01	2.02E-01	1.83E-01	1.66E-01	1.50E-01	1.36E-01	1.23E-01	1.11E-01	
8.65E-02	6.74E-02	5.25E-02	4.09E-02	3.18E-02	2.48E-02	1.93E-02	1.50E-02	1.17E-02	9.12E-03	
7.10E-03	5.53E-03	4.31E-03	3.35E-03	2.61E-03	2.03E-03	1.58E-03	1.23E-03	9.61E-04	7.49E-04	
5.83E-04	4.54E-04	3.54E-04	2.75E-04	2.14E-04	1.67E-04	1.30E-04	1.01E-04	7.89E-05	6.14E-05	
4.79E-05	3.73E-05	2.90E-05	2.26E-05	1.76E-05	1.37E-05	1.07E-05	8.32E-06	6.48E-06	5.04E-06	
3.93E-06	3.06E-06	2.38E-06	1.86E-06	1.45E-06	1.13E-06	8.76E-07	6.83E-07	5.32E-07	4.14E-07	

Results

Flux values were calculated based on the flux to watt factors of 3.56×10^7 neutrons/cm2/sec from Table 28, Calculated Fluxes and Cross Sections for Triga Reactors, GA-4361 for 1 electron volts (eV) to 10 million electron volts (MeV) with 68 rod and 1.51×10^7 neutrons/cm2/sec from Table 28, Calculated Fluxes and Cross Sections for Triga Reactors, GA- 4361 for 0eV to 1eV with 68 rods. The flux was then multiplied by 18,000 or 20,000 watts to obtain the total flux. The flux was then normalized to the appropriate flux level(s) listed in the ANITA-2000 Input Parameters (see Attachment A). These steps were repeated for all six flux spectrums. All six normalized flux spectrums were then inserted into the FL4.175 file (see Attachment B, Fluxes 2-6) of ANITA-2000.

Anita-2000 input cards were then prepared for the following materials (see Attachment C):
1) Concrete
2) Al-6061
3) Soil
4) Epoxy
5) Steel (Carbon)
6) Graphite

The structure of the ANITA-2000 input card is described in the ANITA-2000 users manual. The activation and cooldown times for the first ANITA-2000 computer run were based on a week of AJBRF operation (20 kW at 8 hours per day for 5 days). The ANITA-2000 output file for soil is in Attachment E.

Figure 1 shows the results of soil activation in bequerals per gram (Bq/g) based on an AJBRF operation (20 kW at 8 hours per day for 5 days). Figure 1 shows the activation cycle of 8 hours where the activity increases due to neutron activation. The next part of the curve shows the decay cycle of 16 hours. Five activation and decay cycles are shown. Note, that the fifth decay cycle reflects a decay time of 64 hours.

Table 1: Alan J. Blotcky Reactor Facility Operating History

Year	KW-hrs	Activation Seconds	Activation Hours	Decay Seconds	Annual Report Dates

Table 1: Alan J. Blotcky Reactor Facility Operating History

Year	KW-hrs	Activation Seconds	Activation Hours	Decay Seconds	Annual Report Dates
1959	12649	2.52980E+06	702.7222	2.90062E+07	
1960	12649	2.52980E+06	702.7222	2.90062E+07	
1961	12649	2.27682E+06	632.45	2.92592E+07	
1962	12649	2.27682E+06	632.45	2.92592E+07	
1963	12649	2.27682E+06	632.45	2.92592E+07	
1964	12649	2.27682E+06	632.45	2.92592E+07	
1965	12649	2.27682E+06	632.45	2.92592E+07	
1966	12649	2.27682E+06	632.45	2.92592E+07	
1967	12649	2.27682E+06	632.45	2.92592E+07	
1968	12649	2.27682E+06	632.45	2.92592E+07	
1969	12649	2.27682E+06	632.45	2.92592E+07	
1970	12649	2.27682E+06	632.45	2.92592E+07	
1971	12649	2.27682E+06	632.45	2.92592E+07	
1972	12649	2.27682E+06	632.45	2.92592E+07	
1973	12649	2.27682E+06	632.45	2.92592E+07	
1974	12649	2.27682E+06	632.45	2.92592E+07	
1975	12649	2.27682E+06	632.45	2.92592E+07	7/1/74 to 6/30/75
1976	12649	2.27682E+06	632.45	2.92592E+07	7/1/75 to 6/30/76
1977	12649	2.27682E+06	632.45	2.92592E+07	7/1/76 to 6/30/77
1978	12649	2.27682E+06	632.45	2.92592E+07	7/1/77 to 6/30/78
1979	18390	3.31020E+06	919.5	2.82258E+07	7/1/78 to 6/30/79
1980	15700	2.82600E+06	785	2.87100E+07	7/1/79 to 6/30/80
1981	11900	2.14200E+06	595	2.93940E+07	7/1/80 to 6/30/81
1982	11800	2.12400E+06	590	2.94120E+07	7/1/81 to 6/30/82
	7670	1.38060E+06	383.5	3.01554E+07	7/1/82 to 6/30/83
1983	3829.61	6.89330E+05	191.4805	3.08467E+07	7/1/83 to 12/31/83
1984	13219.2	2.37945E+06	660.9595	2.91565E+07	
1985	13614.2	2.45055E+06	680.709	2.90854E+07	
1986	23244.2	4.18396E+06	1162.211	2.73520E+07	
1987	17559.4	3.16070E+06	877.9715	2.83753E+07	
1988	23838.6	4.29096E+06	1191.932	2.72450E+07	
1989	13193	2.37474E+06	659.6495	2.91613E+07	
1990	9323.7	1.67827E+06	466.185	2.98577E+07	
1991	8816.8	1.58702E+06	440.84	2.99490E+07	
1992	8104.72	1.45885E+06	405.236	3.00772E+07	
1993	12649	2.27682E+06	632.45	2.92592E+07	
1994	12649	2.27682E+06	632.45	2.92592E+07	
1995	10000.2	1.80003E+06	500.0095	2.97360E+07	
1996	12649	2.27682E+06	632.45	2.92592E+07	
1997	12649	2.27682E+06	632.45	2.92592E+07	
1998	431.4	7.76520E+04	21.57	3.14583E+07	
1999	515.47	9.27846E+04	25.7735	3.14432E+07	
2000	218.7	3.93660E+04	10.935	3.14966E+07	
2001	62.9	1.13220E+04	3.145	3.15247E+07	

Table 1: Alan J. Blotcky Reactor Facility Operating History

Year	KW-hrs	Activation Seconds	Activation Hours	Decay Seconds	Annual Report Dates
2002		0.00000E+00	0	3.15360E+07	
Total	515008	9.32074E+07	25890.95		

Table 2: Material Compositions

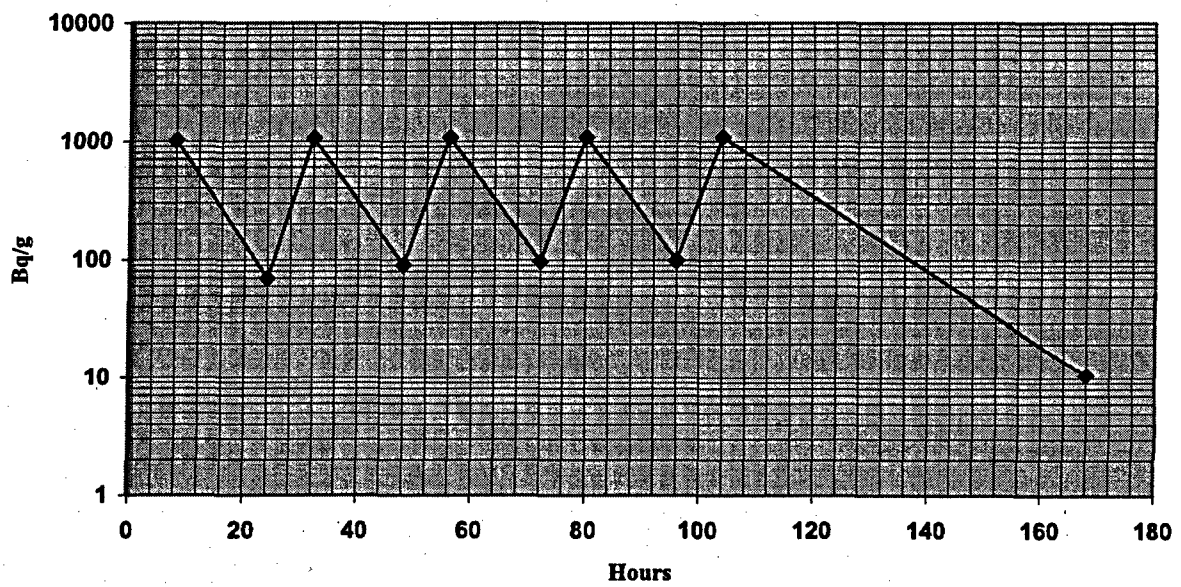
Element	Rebar[1] ρ=8.03 g/cm³	Concrete[2] ρ =2.35 g/cm³	Carbon Steel ρ =7.92 g/cm³	Aluminum Clad ρ =2.70 g/cm³	Epoxy ρ =1.01 g/cm³	Graphite ρ =2.62 g/cm³	Soil ρ =2.62 g/cm³
H	-	-	-	-	3.0189	-	-
C	-	-	0.15	-	21.5845	100	-
O	-	-	-	-	-	-	46.60
Li	0.00000010	-	-	-	-	-	-
N	0.00007700	-	-	-	-	-	-
Na	0.00000720	0.01772000	-	-	-	-	2.83
Al	0.00018000	21.10000000	-	-	-	-	-
P	-	-	0.04	-	0.8	-	2.59
S	-	2.12000000	0.20	-	-	-	-
K	0.00004000	3.75000000	-	-	-	-	-
Ca	0.00005000	80.18000000	-	-	0.1080	-	3.63
Cl	-	-	-	-	21.2368	-	-
Sc	0.00000010	0.00003660	-	-	-	-	-
Ti	0.00070000	0.01046000	-	0.15	18.1239	-	-
V	0.00020100	0.00032300		-	-	-	-
Cr	0.13100000	0.00027400	-	0.2	-	-	-
Mg	-	-	-	1.0	2.86342	-	2.09
Mn	0.94000000	0.00125000	0.36	-	-	-	-
Fe	98.00000000	9.64000000	99.20	0.70	0.0423	-	5
Co	0.00010300	0.00005660	-	-	-	-	-
Ni	0.00107000	0.00017500	-	-	-	-	-
Al	-	-	-	96.68	-	-	8.13
Si	-	-	-	0.60	4.3454	-	27.72
Cu	0.00298000	0.00013400	-	0.27	-	-	-
Zn	0.00006700	0.00021400	-	0.25	-	-	-
Ga	-	0.00005490	-	-	-	-	-
Sn	-	-	-	0.15	-	-	-
As	0.00012900	0.00005610	-	-	-	-	-
Br	0.00000110	0.00001550	-	-	-	-	-
Rb	0.00002000	0.00018200	-	-	-	-	-
Sr	0.00000040	0.00150600	-	-	-	-	-
Y	-	0.00009470	-	-	-	-	-
Zr	-	0.00036900	-	-	-	-	-
Nb	-	0.00003330	-	-	-	-	-
Mo	0.00021800	-	-	-	-	-	-
Ag	0.00000420	-	-	-	-	-	-
Sb	0.00004700	0.00000629	-	-	-	-	-
Cs	0.00000060	-	-	-	-	-	-

Table 2: Material Compositions

Element	Rebar[1] ρ=8.03 g/cm³	Concrete[2] ρ =2.35 g/cm³	Carbon Steel ρ =7.92 g/cm³	Aluminum Clad ρ =2.70 g/cm³	Epoxy ρ =1.01 g/cm³	Graphite ρ =2.62 g/cm³	Soil ρ =2.62 g/cm³
Ba	0.00040000	0.00202400	-	-	-	-	-
La	0.00000030	-	-	-	-	-	-
Sm	0.00000004	0.00001630	-	-	-	-	-
Eu	0.00000009	0.00000355	-	-	-	-	-
Ho	0.00000004	-	-	-	-	-	-
Lu	0.00000060	-	-	-	-	-	-
Hf	0.00000080	-	-	-	-	-	-
Ta	0.00000060	0.00000269	-	-	-	-	-
Pb	-	0.00007210	-	-	-	-	-
Th	-	0.00002640	-	-	-	-	-
W	0.00001500	0.00000626	-	-	-	-	-
U	0.00000090	0.00001970	-	-	-	-	-

1 - Rebar Composition Summary from Table 4.13 of Long Lived Activation Products in Reactor Materials, NUREG/CR-3474
2 - Concrete Ingredients (Enrico Fermo) Elemental Concentrations from Table 4.22 of Long Lived Activation Products in Reactor Materials, NUREG/CR-3474

Figure 1: Short Term Soil Activity(Bq/g)



The activation and cooldown times for the second set of ANITA-2000 computer runs are based on long term AJBRF operation (20 kW at 8 hours per day, 5 days per week for the operating life of the facility) or 9.32074E+07 seconds. These ANITA-2000 runs were used to determine the potential radionuclides in the area surrounding and outside the reactor pool liner (biological shield) of the AJBRF. The ANITA-2000 output files are shown in Table 4. The 1st column of Table 4 shows the attachment. The 2nd column of Table 4 shows the description of the attachment.

Table 4: ANITA-2000 Output Files

Attachment	Description
E	ANITA Output Soil Short Term Exposure

F	ANITA Output Soil Long Term Exposure
G	ANITA Output Concrete Long Term Exposure – Multi Year Exposure
G1	ANITA Output Concrete Long Term Exposure
H	ANITA Output for Rebar Based on Long Term Exposure
I	ANITA Output for Al-6061 Based on Long Term Exposure
J	ANITA Output for Epoxy Based on Long Term Exposure
K	ANITA Output for Graphite Based on Long Term Exposure
L	ANITA Output for Carbon Steel Based on Long Term Exposure

The nuclides present for each attachment listed in Table 4 are summarized in Attachment M for the long-term activation and decay. Table 5 shows the decayed nuclides from Attachment M and represents the radionuclides in the area surrounding and outside the reactor pool liner (biological shield) of the AJBRF. The 1st column of Table 5 shows the nuclides present after long-term activation and decay. The 2nd column of Table 5 shows the number of atoms per cubic centimeter (cm) for the nuclide. The 3rd column of Table 5 shows the watts per cubic centimeter for each nuclide. The 4th column of Table 5 shows the Joules per cubic centimeter. The 5th column of Table 5 shows the energy (MeV) per gram of material. The 6th column of Table 5 shows the nuclide activity in bequerals (Bq) per cubic centimeter. The 7th column of Table 5 shows the nuclide activity in curies (Ci) per cubic centimeter.

Table 5: Radionuclides from Long-Term Activation

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Soil Short Term						
Na24	1820400	1.75E-11	1.36E-06	37.107	23.393	6.32E-10
K40	1.21E+17	2.26E-13	13199	0.1259	2.0823	5.63E-11
K42	134750	5.76E-13	3.7E-08	0.23901	2.0967	5.67E-11
Total		1.83E-11	13198.57	37.471	27.572	7.45E-10
Soil Long Term 1 sec.						
Na 24	7.65E+07	7.37E-10	5.73E-05	1.56E+03	9.83E+02	2.66E-08
Na 24ml	2.16E+01	5.75E-11	1.68E-12	1.34E+02	7.42E+02	2.01E-08
Mg 27	3.09E+03	9.64E-13	7.90E-10	1.29E+00	3.78E+00	1.02E-10
Al 28	1.56E+05	3.90E-10	7.56E-08	5.52E+02	8.06E+02	2.18E-08
Si 31	1.13E+07	7.89E-11	1.07E-06	2.86E-01	8.27E+02	2.23E-08
Ar 37	1.12E+07	1.10E-15	4.81E-09	3.19E-04	2.57E+00	6.94E-11
K 40	1.21E+17	2.26E-13	1.32E+04	1.26E-01	2.08E+00	5.63E-11
K 42	9.96E+06	4.25E-11	2.73E-06	1.77E+01	1.55E+02	4.19E-09
Ca 45	4.44E+08	2.71E-13	5.50E-06	0.00E+00	2.19E+01	5.92E-10
Ca 49	1.59E+03	1.37E-12	1.03E-09	2.57E+00	2.11E+00	5.71E-11
Sc 49	1.05E+04	2.77E-13	1.37E-09	8.12E-04	2.11E+00	5.71E-11
Fe 55	8.45E+09	6.41E-14	7.98E-06	4.36E-02	6.79E+01	1.83E-09
Fe 59	3.94E+07	1.49E-12	8.25E-06	3.25E+00	7.10E+00	1.92E-10
Soil Long Term 16.7 sec.						
Na 24	7.55E+07	7.27E-10	5.66E-05	1.54E+03	9.71E+02	2.62E-08
Mg 27	9.13E+02	2.84E-13	2.33E-10	3.82E-01	1.11E+00	3.01E-11
Al 28	9.02E+02	2.25E-12	4.36E-10	3.19E+00	4.65E+00	1.26E-10
Si 31	1.05E+07	7.33E-11	9.98E-07	2.66E-01	7.68E+02	2.08E-08
Ar 37	1.12E+07	1.10E-15	4.81E-09	3.19E-04	2.57E+00	6.93E-11
K 40	1.21E+17	2.26E-13	1.32E+04	1.26E-01	2.08E+00	5.63E-11
K 42	9.81E+06	4.19E-11	2.69E-06	1.74E+01	1.53E+02	4.12E-09
Ca 45	4.44E+08	2.71E-13	5.50E-06	0.00E+00	2.19E+01	5.92E-10
Ca 49	4.24E+02	3.63E-13	2.74E-10	6.84E-01	5.61E-01	1.52E-11
Sc 49	9.58E+03	2.54E-13	1.26E-09	7.44E-04	1.93E+00	5.23E-11

Table 5: Radionuclides from Long-Term Activation

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Fe 55	8.45E+09	6.41E-14	7.98E-06	4.36E-02	6.79E+01	1.83E-09
Fe 59	3.94E+07	1.49E-12	8.25E-06	3.25E+00	7.10E+00	1.92E-10
Total		8.48E-10	1.32E+04	1.57E+03	2.00E+03	5.41E-08
Soil Long Term 11.6 d						
Ar 37	8.91E+06	8.76E-16	3.83E-09	2.54E-04	2.04E+00	5.52E-11
K 40	1.21E+17	2.26E-13	1.32E+04	1.26E-01	2.08E+00	5.63E-11
Ca 45	4.23E+08	2.58E-13	5.23E-06	0.00E+00	2.09E+01	5.64E-10
Fe 55	8.39E+09	6.36E-14	7.91E-06	4.33E-02	6.73E+01	1.82E-09
Fe 59	3.29E+07	1.24E-12	6.89E-06	2.71E+00	5.93E+00	1.60E-10
Total		1.79E-12	1.32E+04	2.88E+00	9.83E+01	2.66E-09
Soil Long Term 31.7 y						
K 40	1.21E+17	2.26E-13	1.32E+04	1.26E-01	2.08E+00	5.63E-11
Total		2.26E-13	1.32E+04	1.26E-01	2.08E+00	5.63E-11
Concrete Long Term 1 sec						
Na 24	4.33E+05	4.17E-12	3.24E-07	9.77E+00	5.56E+00	1.50E-10
Al 28	3.65E+05	9.10E-10	1.76E-07	1.43E+03	1.88E+03	5.08E-08
P 33	1.11E+06	4.31E-15	1.37E-08	0.00E+00	3.52E-01	9.51E-12
S 35	5.27E+07	3.78E-14	4.13E-07	0.00E+00	4.84E+00	1.31E-10
Ar 37	1.61E+08	1.58E-14	6.92E-08	5.08E-03	3.69E+01	9.97E-10
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-01	2.73E+00	7.36E-11
K 42	1.30E+07	5.57E-11	3.58E-06	2.56E+01	2.03E+02	5.48E-09
Ca 41	7.63E+11	8.56E-17	4.01E-04	3.03E-05	1.63E-01	4.40E-12
Ca 45	6.39E+09	3.90E-12	7.91E-05	0.00E+00	3.15E+02	8.52E-09
Ca 47	2.62E+05	1.04E-13	5.89E-08	2.09E-01	4.63E-01	1.25E-11
Ca 49	2.29E+04	1.96E-11	1.48E-08	4.09E+01	3.03E+01	8.20E-10
Sc 47	1.93E+05	2.01E-14	8.38E-09	2.14E-02	4.63E-01	1.25E-11
Sc 49	1.50E+05	3.98E-12	1.97E-08	1.29E-02	3.04E+01	8.21E-10
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-11	3.28E-11	8.86E-22
V 52	9.24E+01	1.15E-13	3.72E-11	1.76E-01	2.85E-01	7.70E-12
Mn 56	7.78E+04	2.35E-12	3.14E-08	4.20E+00	5.81E+00	1.57E-10
Fe 55	1.47E+10	1.12E-13	1.39E-05	8.41E-02	1.18E+02	3.20E-09
Fe 59	6.86E+07	2.59E-12	1.44E-05	6.26E+00	1.24E+01	3.35E-10
Co 60	9.49E+07	1.65E-13	3.95E-05	4.21E-01	3.95E-01	1.07E-11
Co 60ml	6.23E+02	7.02E-15	6.36E-12	2.03E-03	6.88E-01	1.86E-11
As 76	1.10E+05	1.93E-13	2.64E-08	1.49E-01	8.06E-01	2.18E-11
Br 80	4.37E+02	3.68E-14	5.61E-11	9.41E-03	2.87E-01	7.76E-12
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+00	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+00	5.85E-05	1.58E-15
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+00	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+00	2.86E-09	7.72E-20
Sm153	4.05E+05	8.86E-14	2.15E-08	4.40E-02	1.67E+00	4.51E-11
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-06	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-05	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-06	5.80E-03	1.57E-13
U239	7.48E+02	2.72E-14	5.53E-11	8.08E-03	3.68E-01	9.95E-12

Table 5: Radionuclides from Long-Term Activation

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Np239	1.08E+05	2.63E-14	7.71E-09	2.86E-02	3.68E-01	9.95E-12
Total		1.00E-09	1.85E+04	1.51E+03	2.65E+03	7.17E-08
Concrete Long Term 16.7 m						
Na 24	4.28E+05	4.12E-12	3.20E-07	9.64E+00	5.49E+00	1.48E-10
Al 28	2.12E+03	5.28E-12	1.02E-09	8.27E+00	1.09E+01	2.95E-10
P 33	1.11E+06	4.31E-15	1.37E-08	0.00E+00	3.52E-01	9.50E-12
S35	5.27E+07	3.78E-14	4.13E-07	0.00E+00	4.84E+00	1.31E-10
Ar 37	1.61E+08	1.58E-14	6.91E-08	5.08E-03	3.69E+01	9.97E-10
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-01	2.73E+00	7.36E-11
K 42	1.28E+07	5.48E-11	3.52E-06	2.52E+01	2.00E+02	5.40E-09
Ca 41	7.63E+11	8.56E-17	4.01E-04	3.03E-05	1.63E-01	4.40E-12
Ca 45	6.39E+09	3.90E-12	7.90E-05	0.00E+00	3.15E+02	8.52E-09
Ca 47	2.61E+05	1.04E-13	5.88E-08	2.08E-01	4.62E-01	1.25E-11
Ca 49	6.09E+03	5.22E-12	3.94E-09	1.09E+01	8.07E+00	2.18E-10
Sc 47	1.93E+05	2.01E-14	8.38E-09	2.14E-02	4.63E-01	1.25E-11
Sc 49	1.38E+05	3.65E-12	1.81E-08	1.18E-02	2.78E+01	7.52E-10
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-11	3.28E-11	8.86E-22
Mn 56	7.22E+04	2.18E-12	2.92E-08	3.90E+00	5.39E+00	1.46E-10
Fe 55	1.47E+10	1.12E-13	1.39E-05	8.41E-02	1.18E+02	3.20E-09
Fe 59	6.86E+07	2.59E-12	1.44E-05	6.26E+00	1.24E+01	3.34E-10
Co 60	9.49E+07	1.65E-13	3.95E-05	4.21E-01	3.95E-01	1.07E-11
As 76	1.09E+05	1.92E-13	2.62E-08	1.48E-01	8.01E-01	2.16E-11
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+00	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+00	5.85E-05	1.58E-15
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+00	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+00	2.86E-09	7.72E-20
Sm153	4.03E+05	8.82E-14	2.14E-08	4.38E-02	1.66E+00	4.49E-11
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-06	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-05	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-06	5.80E-03	1.57E-13
Np239	1.08E+05	2.62E-14	7.70E-09	2.85E-02	3.68E-01	9.95E-12
Total		8.2803E-11 1	8.48E+03	6.53E+01	7.52E+02	2.03E-08
Concrete Long Term 11.6 d						
P 33	8.12E+05	3.15E-15	9.96E-09	0.00E+00	2.56E-01	6.93E-12
S 35	4.81E+07	3.45E-14	3.76E-07	0.00E+00	4.41E+00	1.19E-10
Ar 37	1.28E+08	1.26E-14	5.50E-08	4.04E-03	2.93E+01	7.93E-10
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-01	2.73E+00	7.36E-11
Ca 41	7.63E+11	8.56E-17	4.01E-04	3.03E-05	1.63E-01	4.40E-12
Ca 45	6.08E+09	3.71E-12	7.52E-05	0.00E+00	3.00E+02	8.11E-09
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-11	3.28E-11	8.86E-22
Fe 55	1.46E+10	1.11E-13	1.38E-05	8.34E-02	1.17E+02	3.17E-09
Fe 59	5.73E+07	2.16E-12	1.20E-05	5.23E+00	1.03E+01	2.79E-10
Co 60	9.45E+07	1.64E-13	3.94E-05	4.19E-01	3.94E-01	1.06E-11
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+00	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+00	5.85E-05	1.58E-15

Table 5: Radionuclides from Long-Term Activation

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+00	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+00	2.86E-09	7.72E-20
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-06	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-05	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-06	5.80E-03	1.57E-13
Total		6.5050E-12 1	8.48E+03	5.92E+00	4.65E+02	1.26E-08
Concrete Long Term 31.7 y						
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-01	2.73E+00	7.36E-11
Ca 41	7.63E+11	8.55E-17	4.01E-04	3.03E-05	1.63E-01	4.40E-12
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-11	3.28E-11	8.86E-22
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+00	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+00	5.85E-05	1.58E-15
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+00	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+00	2.86E-09	7.72E-20
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-06	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-05	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-06	5.80E-03	1.57E-13
Total		3.0527E-13 1	8.48E+03	1.82E-01	2.90E+00	7.85E-11
Concrete 338.6 d						
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-01	2.73E+00	7.36E-11
Ca 45	1.62E+08	9.88E-14	2.00E-06	0.00E+00	7.99E+00	2.16E-10
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-11	3.28E-11	8.86E-22
Fe 55	4.00E+08	3.03E-15	3.78E-07	2.29E-03	3.22E+00	8.69E-11
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+00	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+00	5.85E-05	1.58E-15
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+00	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+00	2.86E-09	7.72E-20
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-06	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-05	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-06	5.80E-03	1.57E-13
Total		4.0702E-13 1	8.48E+03	1.85E-01	1.39E+01	3.77E-10
Rebar Long Term 1 sec						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-06	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-12	7.03E-11	1.90E-21
Cr 51	1.66E+08	2.83E-13	9.76E-07	1.97E-01	4.82E+01	1.30E-09
Cr 55	2.46E+02	1.42E-13	4.35E-11	4.25E-04	8.04E-01	2.17E-11
Mn 56	2.00E+08	6.03E-09	8.08E-05	3.16E+03	1.49E+04	4.03E-07
Fe 55	5.12E+11	3.88E-12	4.83E-04	8.55E-01	4.11E+03	1.11E-07
Fe 59	2.38E+09	9.00E-11	4.99E-04	6.37E+01	4.30E+02	1.16E-08
Co 60	5.56E+08	9.66E-13	2.32E-04	7.23E-01	2.32E+00	6.27E-11
Co 60m1	3.66E+03	4.12E-14	3.73E-11	3.48E-03	4.03E+00	1.09E-10
Cu 64	8.21E+05	6.30E-13	4.16E-08	2.95E-01	1.24E+01	3.36E-10
Cu 66	1.05E+03	4.38E-13	1.93E-10	2.42E-02	2.37E+00	6.41E-11
As 76	8.10E+05	1.42E-12	1.94E-07	3.20E-01	5.92E+00	1.60E-10
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+00	1.44E-03	3.90E-14

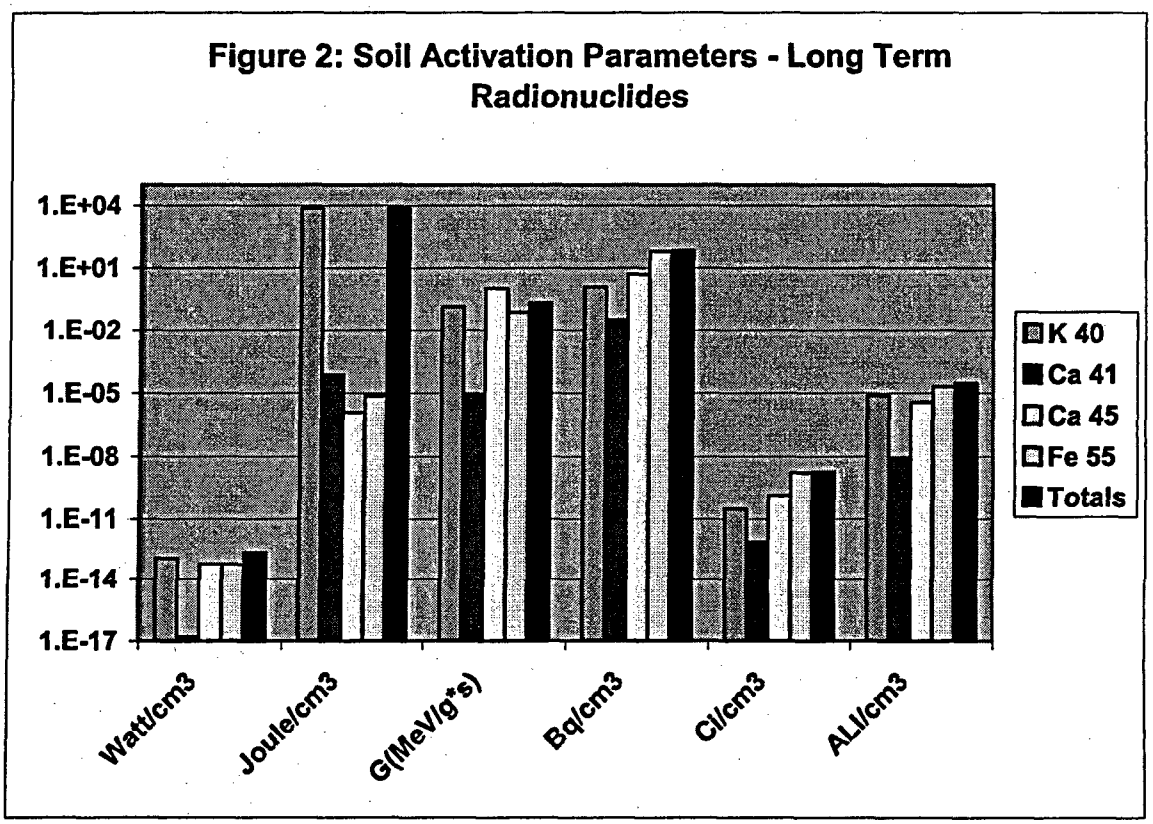
Table 5: Radionuclides from Long-Term Activation

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Ag110	4.67E+01	2.54E-13	9.05E-12	5.67E-03	1.31E+00	3.54E-11
Sb122	8.44E+05	4.03E-13	1.36E-07	1.37E-01	2.51E+00	6.79E-11
Sb124	8.67E+06	4.15E-13	3.12E-06	2.68E-01	1.15E+00	3.12E-11
Total		6.1317E-09 1	2.37E+01	3.23E+03	1.95E+04	5.28E-07
Rebar Long Term 11.6 d						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-06	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-12	7.03E-11	1.90E-21
Cr 51	1.25E+08	2.12E-13	7.31E-07	1.47E-01	3.61E+01	9.75E-10
Fe 55	5.08E+11	3.85E-12	4.79E-04	8.48E-01	4.08E+03	1.10E-07
Fe 59	1.99E+09	7.52E-11	4.17E-04	5.32E+01	3.59E+02	9.70E-09
Co 60	5.54E+08	9.62E-13	2.31E-04	7.20E-01	2.31E+00	6.24E-11
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+00	1.44E-03	3.90E-14
Sb124	7.59E+06	3.63E-13	2.73E-06	2.34E-01	1.01E+00	2.73E-11
Total		8.06E-11	1.24E+02	5.51E+01	4.48E+03	1.21E-07
Rebar Long Term 31.7 y						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-06	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-12	7.03E-11	1.90E-21
Fe 55	1.66E+08	1.26E-15	1.57E-07	2.78E-04	1.34E+00	3.61E-11
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+00	1.44E-03	3.90E-14
Total		1.2902E-15 1	2.37E+01	2.80E-04	1.34E+00	3.62E-11
Rebar 26.68 d						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-06	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-12	7.03E-11	1.90E-21
Cr 51	8.04E+07	1.36E-13	4.71E-07	9.49E-02	2.33E+01	6.29E-10
Cr 55	2.47E+02	1.42E-13	4.36E-11	4.26E-04	8.07E-01	2.18E-11
Mn 56	2.00E+08	6.03E-09	8.08E-05	3.16E+03	1.49E+04	4.03E-07
Fe 55	1.76E+10	1.33E-13	1.66E-05	2.94E-02	1.41E+02	3.82E-09
Fe 59	8.03E+08	3.03E-11	1.68E-04	2.14E+01	1.45E+02	3.91E-09
Co 60ml	3.66E+03	4.12E-14	3.74E-11	3.48E-03	4.04E+00	1.09E-10
Cu 64	8.21E+05	6.30E-13	4.16E-08	2.95E-01	1.24E+01	3.36E-10
Cu 66	1.05E+03	4.39E-13	1.94E-10	2.42E-02	2.38E+00	6.42E-11
As 76	8.10E+05	1.42E-12	1.94E-07	3.20E-01	5.92E+00	1.60E-10
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+00	1.44E-03	3.90E-14
Ag110	4.80E+01	2.61E-13	9.30E-12	5.83E-03	1.35E+00	3.64E-11
Sb122	8.43E+05	4.03E-13	1.35E-07	1.37E-01	2.51E+00	6.78E-11
Total	8.58E+22	6.0671E-09 1	2.37E+01	3.18E+03	1.53E+04	4.12E-07
Rebar 338.6 d						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-06	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-12	7.03E-11	1.90E-21
Fe 55	1.39E+10	1.05E-13	1.31E-05	2.32E-02	1.12E+02	3.02E-09
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+00	1.44E-03	3.90E-14
Total		1.0545E-13 1	2.37E+01	2.32E-02	1.12E+02	3.02E-09
Aluminum 31.7 y						
Fe 55	2.06E+09	1.56E-14	1.94E-06	1.02E-02	1.65E+01	4.47E-10
Ni 63	6.07E+10	3.70E-14	1.67E-04	0.00E+00	1.35E+01	3.64E-10

Table 5: Radionuclides from Long-Term Activation

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Total		5.26E-14	1.69E-04	1.02E-02	3.00E+01	8.11E-10
Epoxy 31.7 y						
Cl 36	6.06E+12	1.93E-14	2.66E-01	9.49E-06	4.41E-01	1.19E-11
Total	6.06E+12	1.93E-14	2.66E-01	9.49E-06	4.41E-01	1.19E-11
Graphite 31.7 y						
C 14	1.50E+13	4.57E-13	1.19E-01	0.00E+00	5.77E+01	1.56E-09
Total		4.57E-13	1.19E-01	0.00E+00	5.77E+01	1.56E-09

Attachment D was used to calculate the soil penetrating flux for the AJBRF reactor using the methodology presented in Appendix D of the Safety Analysis Report (SAR). The results of the long-term soil activation are shown in Figure 2.



The results of the soil penetrating flux calculation were used to estimate the soil activation. From Table 2 of Attachment D, the soil penetrating flux is reduced by a factor of 5.986E-01 for every 10 cm of soil. An ANITA-2000 run was performed to verify this reduction factor. The flux was reduced by a factor of 5.986E-01 in the input file. The ANITA-2000 output file for the reduced soil flux is in Attachment D1. Figure 3 shows the Soil Activation Parameters – Long Term Radionuclides every 10 cm out to 100 cm from the reactor.

Table 6 shows a sketch of the core, vessel, cement, and soil (Note: Not to scale) and the Concrete Flux vs Distance from the AJBRF Core. The data used in Table 6 for the Concrete Flux vs Distance table is from Attachment D, Table 4, where the concrete flux at 4' and 4.5' was determined based on the methodology from Appendix D of the SAR. The activity in the concrete at 4' and 4.5' above the core can be estimated by comparing the activity at the core centerline that was determined by activation analysis.

Conclusion

Based on activation analysis, the radionuclides in the area surrounding and outside the reactor pool liner (biological shield) of the AJBRF reactor are listed in Table 5 under soil, concrete, and rebar.

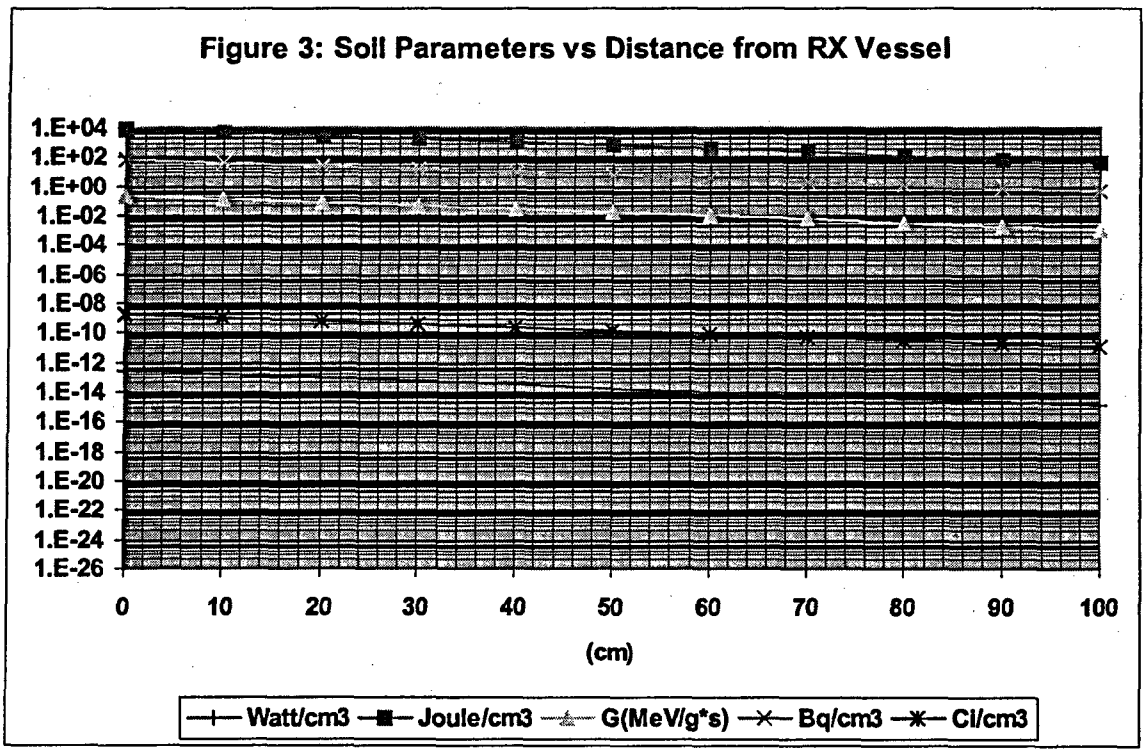
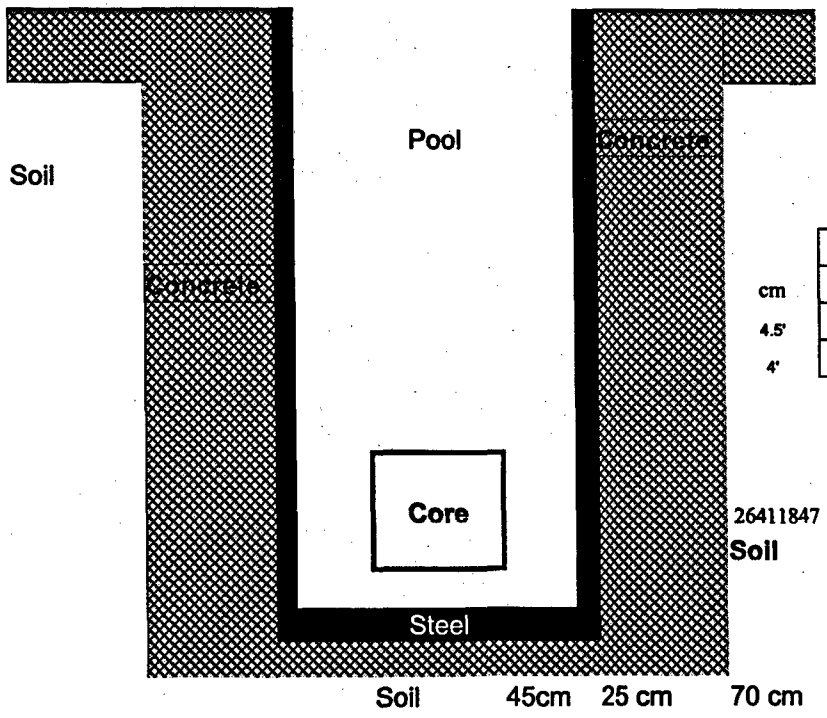


Table 6: AJBRF Geometry and Concrete Flux vs Distance from Core



Concrete Flux vs Distance from Core												
cm	46	48.54	51.08	53.62	58.7	61.4	63.78	66.32	68.86	70	70.64	
4.5'	5638	2730	1322	640	310	150	73	35	17	8	6	Distance above core centerline
4'	26494	13792	7180	3738	1946	1013	527	274	143	74	55	

Note: The activity of the concrete at 4' & 4.5' can be compared to the activity of the concrete adjacent to the core.

Attachment A: ANITA Flux File for AJBRF Reactor

MeV	6/1959 – 4/12/1961			Normalize	Normalized Flux
	Flux/watt	watt	Flux	Factor	(Initial)
2.00E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.99E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.98E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.97E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.96E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.95E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.94E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.93E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.92E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.91E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.90E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.89E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.88E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.87E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.86E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.85E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.84E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.83E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.82E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.81E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.80E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.79E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.78E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.77E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.76E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.75E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.74E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.73E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.72E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.71E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.70E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.69E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.68E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.67E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.66E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.65E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.64E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.63E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.62E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.61E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.60E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.59E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.58E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.57E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.56E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.55E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.54E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.53E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.52E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.51E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.50E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.49E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.48E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.47E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.46E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.45E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.44E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.43E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.42E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.41E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00

1.40E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.39E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.38E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.37E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.36E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.35E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.34E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.33E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.32E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.31E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.30E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.29E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.28E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.27E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.26E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.25E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.24E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.23E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.22E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.21E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.20E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.19E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.18E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.17E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.16E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.15E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.14E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.13E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.12E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.11E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.10E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.09E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.08E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.07E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.06E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.05E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.04E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.03E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.02E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.01E+01	0.00E+00	0	0.00E+00	0.007985	0.0000E+00
1.00E+01	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
9.90E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
9.80E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
9.70E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
9.60E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
9.50E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
9.40E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
9.30E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
9.20E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
9.10E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
9.00E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
8.90E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
8.80E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
8.70E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
8.60E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
8.50E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
8.40E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
8.30E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
8.20E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
8.10E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
8.00E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
7.90E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09

7.80E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
7.70E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
7.60E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
7.50E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
7.40E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
7.30E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
7.20E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
7.10E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
7.00E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
6.90E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
6.80E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
6.70E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
6.60E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
6.50E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
6.40E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
6.30E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
6.20E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
6.10E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
6.00E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
5.90E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
5.80E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
5.70E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
5.60E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
5.50E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
5.40E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
5.30E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
5.20E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
5.10E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
5.00E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
4.90E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
4.80E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
4.70E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
4.60E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
4.50E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
4.40E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
4.30E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
4.20E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
4.10E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
4.00E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
3.90E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
3.80E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
3.70E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
3.60E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
3.50E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
3.40E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
3.30E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
3.20E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
3.10E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
3.00E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
2.90E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
2.80E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
2.70E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
2.60E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
2.50E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
2.40E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
2.30E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
2.20E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
2.10E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
2.00E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
1.90E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
1.80E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
1.70E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09

1.60E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
1.50E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
1.40E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
1.30E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
1.20E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
1.10E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
1.00E+00	3.56E+07	18000	6.41E+11	0.007985	5.1168E+09
9.00E-01	1.51E+07	18000	2.72E+11	0.007985	2.1703E+09
8.00E-01	1.51E+07	18000	2.72E+11	0.007985	2.1703E+09
7.00E-01	1.51E+07	18000	2.72E+11	0.007985	2.1703E+09
6.00E-01	1.51E+07	18000	2.72E+11	0.007985	2.1703E+09
5.00E-01	1.51E+07	18000	2.72E+11	0.007985	2.1703E+09
4.00E-01	1.51E+07	18000	2.72E+11	0.007985	2.1703E+09
3.00E-01	1.51E+07	18000	2.72E+11	0.007985	2.1703E+09
2.00E-01	1.51E+07	18000	2.72E+11	0.007985	2.1703E+09
1.00E-01	1.51E+07	18000	2.72E+11	0.007985	2.1703E+09

	4/13/1961-11/2001			Normalized	Normalized Flux
MeV	Flux/watt	Watt	Flux	Factor	(Final)
2.00E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.99E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.98E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.97E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.96E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.95E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.94E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.93E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.92E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.91E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.90E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.89E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.88E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.87E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.86E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.85E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.84E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.83E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.82E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.81E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.80E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.79E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.78E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.77E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.76E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.75E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.74E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.73E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.72E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.71E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.70E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.69E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.68E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.67E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.66E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.65E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.64E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.63E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.62E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.61E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.60E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.59E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.58E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00

1.57E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.56E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.55E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.54E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.53E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.52E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.51E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.50E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.49E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.48E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.47E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.46E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.45E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.44E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.43E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.42E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.41E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.40E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.39E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.38E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.37E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.36E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.35E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.34E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.33E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.32E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.31E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.30E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.29E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.28E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.27E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.26E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.25E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.24E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.23E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.22E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.21E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.20E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.19E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.18E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.17E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.16E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.15E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.14E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.13E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.12E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.11E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.10E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.09E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.08E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.07E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.06E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.05E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.04E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.03E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.02E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.01E+01	0.00E+00	0	0.00E+00	0.007111	0.0000E+00
1.00E+01	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
9.90E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
9.80E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
9.70E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
9.60E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09

9.50E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
9.40E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
9.30E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
9.20E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
9.10E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
9.00E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
8.90E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
8.80E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
8.70E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
8.60E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
8.50E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
8.40E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
8.30E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
8.20E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
8.10E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
8.00E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
7.90E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
7.80E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
7.70E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
7.60E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
7.50E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
7.40E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
7.30E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
7.20E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
7.10E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
7.00E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
6.90E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
6.80E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
6.70E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
6.60E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
6.50E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
6.40E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
6.30E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
6.20E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
6.10E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
6.00E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
5.90E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
5.80E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
5.70E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
5.60E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
5.50E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
5.40E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
5.30E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
5.20E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
5.10E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
5.00E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
4.90E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
4.80E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
4.70E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
4.60E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
4.50E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
4.40E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
4.30E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
4.20E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
4.10E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
4.00E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
3.90E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
3.80E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
3.70E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
3.60E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
3.50E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
3.40E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09

3.30E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
3.20E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
3.10E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
3.00E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
2.90E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
2.80E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
2.70E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
2.60E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
2.50E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
2.40E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
2.30E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
2.20E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
2.10E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
2.00E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
1.90E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
1.80E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
1.70E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
1.60E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
1.50E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
1.40E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
1.30E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
1.20E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
1.10E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
1.00E+00	3.56E+07	20000	7.12E+11	0.007111	5.0630E+09
9.00E-01	1.51E+07	20000	3.02E+11	0.007111	2.1475E+09
8.00E-01	1.51E+07	20000	3.02E+11	0.007111	2.1475E+09
7.00E-01	1.51E+07	20000	3.02E+11	0.007111	2.1475E+09
6.00E-01	1.51E+07	20000	3.02E+11	0.007111	2.1475E+09
5.00E-01	1.51E+07	20000	3.02E+11	0.007111	2.1475E+09
4.00E-01	1.51E+07	20000	3.02E+11	0.007111	2.1475E+09
3.00E-01	1.51E+07	20000	3.02E+11	0.007111	2.1475E+09
2.00E-01	1.51E+07	20000	3.02E+11	0.007111	2.1475E+09
1.00E-01	1.51E+07	20000	3.02E+11	0.007111	2.1475E+09

	Specimen Rack				
MeV	Flux/watt	watt	Flux	Normalized Factor	Normalized Specimen Flux (Initial)
2.00E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.99E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.98E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.97E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.96E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.95E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.94E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.93E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.92E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.91E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.90E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.89E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.88E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.87E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.86E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.85E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.84E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.83E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.82E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.81E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.80E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.79E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.78E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.77E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.76E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00

1.75E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.74E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.73E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.72E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.71E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.70E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.69E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.68E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.67E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.66E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.65E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.64E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.63E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.62E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.61E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.60E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.59E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.58E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.57E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.56E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.55E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.54E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.53E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.52E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.51E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.50E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.49E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.48E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.47E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.46E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.45E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.44E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.43E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.42E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.41E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.40E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.39E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.38E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.37E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.36E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.35E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.34E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.33E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.32E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.31E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.30E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.29E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.28E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.27E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.26E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.25E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.24E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.23E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.22E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.21E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.20E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.19E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.18E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.17E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.16E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.15E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.14E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00

1.13E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.12E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.11E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.10E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.09E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.08E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.07E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.06E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.05E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.04E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.03E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.02E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.01E+01	0.00E+00	0	0.00E+00	0.002015	0.0000E+00
1.00E+01	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
9.90E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
9.80E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
9.70E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
9.60E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
9.50E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
9.40E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
9.30E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
9.20E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
9.10E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
9.00E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
8.90E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
8.80E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
8.70E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
8.60E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
8.50E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
8.40E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
8.30E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
8.20E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
8.10E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
8.00E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
7.90E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
7.80E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
7.70E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
7.60E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
7.50E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
7.40E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
7.30E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
7.20E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
7.10E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
7.00E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
6.90E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
6.80E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
6.70E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
6.60E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
6.50E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
6.40E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
6.30E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
6.20E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
6.10E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
6.00E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
5.90E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
5.80E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
5.70E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
5.60E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
5.50E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
5.40E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
5.30E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
5.20E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09

5.10E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
5.00E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
4.90E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
4.80E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
4.70E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
4.60E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
4.50E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
4.40E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
4.30E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
4.20E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
4.10E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
4.00E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
3.90E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
3.80E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
3.70E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
3.60E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
3.50E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
3.40E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
3.30E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
3.20E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
3.10E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
3.00E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
2.90E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
2.80E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
2.70E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
2.60E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
2.50E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
2.40E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
2.30E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
2.20E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
2.10E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
2.00E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
1.90E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
1.80E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
1.70E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
1.60E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
1.50E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
1.40E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
1.30E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
1.20E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
1.10E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
1.00E+00	3.56E+07	20000	7.12E+11	0.002015	1.4347E+09
9.00E-01	1.51E+07	20000	3.02E+11	0.002015	6.0853E+08
8.00E-01	1.51E+07	20000	3.02E+11	0.002015	6.0853E+08
7.00E-01	1.51E+07	20000	3.02E+11	0.002015	6.0853E+08
6.00E-01	1.51E+07	20000	3.02E+11	0.002015	6.0853E+08
5.00E-01	1.51E+07	20000	3.02E+11	0.002015	6.0853E+08
4.00E-01	1.51E+07	20000	3.02E+11	0.002015	6.0853E+08
3.00E-01	1.51E+07	20000	3.02E+11	0.002015	6.0853E+08
2.00E-01	1.51E+07	20000	3.02E+11	0.002015	6.0853E+08
1.00E-01	1.51E+07	20000	3.02E+11	0.002015	6.0853E+08

	Pneumatic				
MeV	Flux/watt	watt	Flux	Normalized Factor	Normalized Pneumatic Flux (Initial)
2.00E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.99E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.98E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.97E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.96E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.95E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.94E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00

1.93E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.92E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.91E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.90E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.89E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.88E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.87E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.86E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.85E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.84E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.83E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.82E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.81E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.80E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.79E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.78E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.77E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.76E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.75E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.74E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.73E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.72E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.71E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.70E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.69E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.68E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.67E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.66E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.65E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.64E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.63E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.62E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.61E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.60E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.59E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.58E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.57E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.56E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.55E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.54E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.53E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.52E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.51E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.50E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.49E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.48E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.47E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.46E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.45E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.44E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.43E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.42E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.41E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.40E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.39E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.38E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.37E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.36E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.35E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.34E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.33E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.32E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00

1.31E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.30E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.29E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.28E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.27E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.26E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.25E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.24E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.23E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.22E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.21E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.20E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.19E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.18E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.17E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.16E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.15E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.14E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.13E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.12E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.11E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.10E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.09E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.08E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.07E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.06E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.05E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.04E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.03E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.02E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.01E+01	0.00E+00	0	0.00E+00	0.005541	0.0000E+00
1.00E+01	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
9.90E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
9.80E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
9.70E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
9.60E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
9.50E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
9.40E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
9.30E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
9.20E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
9.10E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
9.00E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
8.90E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
8.80E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
8.70E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
8.60E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
8.50E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
8.40E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
8.30E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
8.20E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
8.10E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
8.00E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
7.90E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
7.80E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
7.70E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
7.60E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
7.50E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
7.40E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
7.30E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
7.20E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
7.10E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
7.00E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09

6.90E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
6.80E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
6.70E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
6.60E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
6.50E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
6.40E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
6.30E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
6.20E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
6.10E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
6.00E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
5.90E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
5.80E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
5.70E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
5.60E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
5.50E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
5.40E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
5.30E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
5.20E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
5.10E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
5.00E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
4.90E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
4.80E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
4.70E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
4.60E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
4.50E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
4.40E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
4.30E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
4.20E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
4.10E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
4.00E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
3.90E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
3.80E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
3.70E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
3.60E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
3.50E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
3.40E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
3.30E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
3.20E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
3.10E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
3.00E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
2.90E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
2.80E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
2.70E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
2.60E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
2.50E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
2.40E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
2.30E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
2.20E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
2.10E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
2.00E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
1.90E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
1.80E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
1.70E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
1.60E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
1.50E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
1.40E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
1.30E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
1.20E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
1.10E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
1.00E+00	3.56E+07	20000	7.12E+11	0.005541	3.9452E+09
9.00E-01	1.51E+07	20000	3.02E+11	0.005541	1.6734E+09
8.00E-01	1.51E+07	20000	3.02E+11	0.005541	1.6734E+09

7.00E-01	1.51E+07	20000	3.02E+11	0.005541	1.6734E+09
6.00E-01	1.51E+07	20000	3.02E+11	0.005541	1.6734E+09
5.00E-01	1.51E+07	20000	3.02E+11	0.005541	1.6734E+09
4.00E-01	1.51E+07	20000	3.02E+11	0.005541	1.6734E+09
3.00E-01	1.51E+07	20000	3.02E+11	0.005541	1.6734E+09
2.00E-01	1.51E+07	20000	3.02E+11	0.005541	1.6734E+09
1.00E-01	1.51E+07	20000	3.02E+11	0.005541	1.6734E+09

MeV	Soil (Side) Flux	Normalized Factor	Normalized Soil (Side) Flux
2.00E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.99E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.98E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.97E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.96E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.95E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.94E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.93E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.92E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.91E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.90E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.89E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.88E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.87E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.86E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.85E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.84E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.83E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.82E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.81E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.80E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.79E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.78E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.77E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.76E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.75E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.74E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.73E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.72E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.71E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.70E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.69E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.68E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.67E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.66E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.65E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.64E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.63E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.62E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.61E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.60E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.59E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.58E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.57E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.56E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.55E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.54E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.53E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.52E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.51E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.50E+01	0.0000E+00	5.5021E-05	0.0000E+00

1.49E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.48E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.47E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.46E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.45E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.44E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.43E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.42E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.41E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.40E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.39E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.38E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.37E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.36E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.35E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.34E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.33E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.32E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.31E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.30E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.29E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.28E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.27E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.26E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.25E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.24E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.23E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.22E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.21E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.20E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.19E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.18E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.17E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.16E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.15E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.14E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.13E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.12E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.11E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.10E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.09E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.08E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.07E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.06E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.05E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.04E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.03E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.02E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.01E+01	0.0000E+00	5.5021E-05	0.0000E+00
1.00E+01	5.0630E+09	5.5021E-05	2.7857E+05
9.90E+00	5.0630E+09	5.5021E-05	2.7857E+05
9.80E+00	5.0630E+09	5.5021E-05	2.7857E+05
9.70E+00	5.0630E+09	5.5021E-05	2.7857E+05
9.60E+00	5.0630E+09	5.5021E-05	2.7857E+05
9.50E+00	5.0630E+09	5.5021E-05	2.7857E+05
9.40E+00	5.0630E+09	5.5021E-05	2.7857E+05
9.30E+00	5.0630E+09	5.5021E-05	2.7857E+05
9.20E+00	5.0630E+09	5.5021E-05	2.7857E+05
9.10E+00	5.0630E+09	5.5021E-05	2.7857E+05
9.00E+00	5.0630E+09	5.5021E-05	2.7857E+05
8.90E+00	5.0630E+09	5.5021E-05	2.7857E+05
8.80E+00	5.0630E+09	5.5021E-05	2.7857E+05

8.70E+00	5.0630E+09	5.5021E-05	2.7857E+05
8.60E+00	5.0630E+09	5.5021E-05	2.7857E+05
8.50E+00	5.0630E+09	5.5021E-05	2.7857E+05
8.40E+00	5.0630E+09	5.5021E-05	2.7857E+05
8.30E+00	5.0630E+09	5.5021E-05	2.7857E+05
8.20E+00	5.0630E+09	5.5021E-05	2.7857E+05
8.10E+00	5.0630E+09	5.5021E-05	2.7857E+05
8.00E+00	5.0630E+09	5.5021E-05	2.7857E+05
7.90E+00	5.0630E+09	5.5021E-05	2.7857E+05
7.80E+00	5.0630E+09	5.5021E-05	2.7857E+05
7.70E+00	5.0630E+09	5.5021E-05	2.7857E+05
7.60E+00	5.0630E+09	5.5021E-05	2.7857E+05
7.50E+00	5.0630E+09	5.5021E-05	2.7857E+05
7.40E+00	5.0630E+09	5.5021E-05	2.7857E+05
7.30E+00	5.0630E+09	5.5021E-05	2.7857E+05
7.20E+00	5.0630E+09	5.5021E-05	2.7857E+05
7.10E+00	5.0630E+09	5.5021E-05	2.7857E+05
7.00E+00	5.0630E+09	5.5021E-05	2.7857E+05
6.90E+00	5.0630E+09	5.5021E-05	2.7857E+05
6.80E+00	5.0630E+09	5.5021E-05	2.7857E+05
6.70E+00	5.0630E+09	5.5021E-05	2.7857E+05
6.60E+00	5.0630E+09	5.5021E-05	2.7857E+05
6.50E+00	5.0630E+09	5.5021E-05	2.7857E+05
6.40E+00	5.0630E+09	5.5021E-05	2.7857E+05
6.30E+00	5.0630E+09	5.5021E-05	2.7857E+05
6.20E+00	5.0630E+09	5.5021E-05	2.7857E+05
6.10E+00	5.0630E+09	5.5021E-05	2.7857E+05
6.00E+00	5.0630E+09	5.5021E-05	2.7857E+05
5.90E+00	5.0630E+09	5.5021E-05	2.7857E+05
5.80E+00	5.0630E+09	5.5021E-05	2.7857E+05
5.70E+00	5.0630E+09	5.5021E-05	2.7857E+05
5.60E+00	5.0630E+09	5.5021E-05	2.7857E+05
5.50E+00	5.0630E+09	5.5021E-05	2.7857E+05
5.40E+00	5.0630E+09	5.5021E-05	2.7857E+05
5.30E+00	5.0630E+09	5.5021E-05	2.7857E+05
5.20E+00	5.0630E+09	5.5021E-05	2.7857E+05
5.10E+00	5.0630E+09	5.5021E-05	2.7857E+05
5.00E+00	5.0630E+09	5.5021E-05	2.7857E+05
4.90E+00	5.0630E+09	5.5021E-05	2.7857E+05
4.80E+00	5.0630E+09	5.5021E-05	2.7857E+05
4.70E+00	5.0630E+09	5.5021E-05	2.7857E+05
4.60E+00	5.0630E+09	5.5021E-05	2.7857E+05
4.50E+00	5.0630E+09	5.5021E-05	2.7857E+05
4.40E+00	5.0630E+09	5.5021E-05	2.7857E+05
4.30E+00	5.0630E+09	5.5021E-05	2.7857E+05
4.20E+00	5.0630E+09	5.5021E-05	2.7857E+05
4.10E+00	5.0630E+09	5.5021E-05	2.7857E+05
4.00E+00	5.0630E+09	5.5021E-05	2.7857E+05
3.90E+00	5.0630E+09	5.5021E-05	2.7857E+05
3.80E+00	5.0630E+09	5.5021E-05	2.7857E+05
3.70E+00	5.0630E+09	5.5021E-05	2.7857E+05
3.60E+00	5.0630E+09	5.5021E-05	2.7857E+05
3.50E+00	5.0630E+09	5.5021E-05	2.7857E+05
3.40E+00	5.0630E+09	5.5021E-05	2.7857E+05
3.30E+00	5.0630E+09	5.5021E-05	2.7857E+05
3.20E+00	5.0630E+09	5.5021E-05	2.7857E+05
3.10E+00	5.0630E+09	5.5021E-05	2.7857E+05
3.00E+00	5.0630E+09	5.5021E-05	2.7857E+05
2.90E+00	5.0630E+09	5.5021E-05	2.7857E+05
2.80E+00	5.0630E+09	5.5021E-05	2.7857E+05
2.70E+00	5.0630E+09	5.5021E-05	2.7857E+05
2.60E+00	5.0630E+09	5.5021E-05	2.7857E+05

2.50E+00	5.0630E+09	5.5021E-05	2.7857E+05
2.40E+00	5.0630E+09	5.5021E-05	2.7857E+05
2.30E+00	5.0630E+09	5.5021E-05	2.7857E+05
2.20E+00	5.0630E+09	5.5021E-05	2.7857E+05
2.10E+00	5.0630E+09	5.5021E-05	2.7857E+05
2.00E+00	5.0630E+09	5.5021E-05	2.7857E+05
1.90E+00	5.0630E+09	5.5021E-05	2.7857E+05
1.80E+00	5.0630E+09	5.5021E-05	2.7857E+05
1.70E+00	5.0630E+09	5.5021E-05	2.7857E+05
1.60E+00	5.0630E+09	5.5021E-05	2.7857E+05
1.50E+00	5.0630E+09	5.5021E-05	2.7857E+05
1.40E+00	5.0630E+09	5.5021E-05	2.7857E+05
1.30E+00	5.0630E+09	5.5021E-05	2.7857E+05
1.20E+00	5.0630E+09	5.5021E-05	2.7857E+05
1.10E+00	5.0630E+09	5.5021E-05	2.7857E+05
1.00E+00	5.0630E+09	5.5021E-05	2.7857E+05
9.00E-01	2.1475E+09	5.5021E-05	1.1816E+05
8.00E-01	2.1475E+09	5.5021E-05	1.1816E+05
7.00E-01	2.1475E+09	5.5021E-05	1.1816E+05
6.00E-01	2.1475E+09	5.5021E-05	1.1816E+05
5.00E-01	2.1475E+09	5.5021E-05	1.1816E+05
4.00E-01	2.1475E+09	5.5021E-05	1.1816E+05
3.00E-01	2.1475E+09	5.5021E-05	1.1816E+05
2.00E-01	2.1475E+09	5.5021E-05	1.1816E+05
1.00E-01	2.1475E+09	5.5021E-05	1.1816E+05
	4.8006E+11	5.5021E-05	2.6413E+07

MeV	Soil (Bottom) Flux	Normalized Factor	Normalized Soil (Bottom) Flux
2.00E+01	0.0000E+00	1.438E-05	0.0000E+00
1.99E+01	0.0000E+00	1.438E-05	0.0000E+00
1.98E+01	0.0000E+00	1.438E-05	0.0000E+00
1.97E+01	0.0000E+00	1.438E-05	0.0000E+00
1.96E+01	0.0000E+00	1.438E-05	0.0000E+00
1.95E+01	0.0000E+00	1.438E-05	0.0000E+00
1.94E+01	0.0000E+00	1.438E-05	0.0000E+00
1.93E+01	0.0000E+00	1.438E-05	0.0000E+00
1.92E+01	0.0000E+00	1.438E-05	0.0000E+00
1.91E+01	0.0000E+00	1.438E-05	0.0000E+00
1.90E+01	0.0000E+00	1.438E-05	0.0000E+00
1.89E+01	0.0000E+00	1.438E-05	0.0000E+00
1.88E+01	0.0000E+00	1.438E-05	0.0000E+00
1.87E+01	0.0000E+00	1.438E-05	0.0000E+00
1.86E+01	0.0000E+00	1.438E-05	0.0000E+00
1.85E+01	0.0000E+00	1.438E-05	0.0000E+00
1.84E+01	0.0000E+00	1.438E-05	0.0000E+00
1.83E+01	0.0000E+00	1.438E-05	0.0000E+00
1.82E+01	0.0000E+00	1.438E-05	0.0000E+00
1.81E+01	0.0000E+00	1.438E-05	0.0000E+00
1.80E+01	0.0000E+00	1.438E-05	0.0000E+00
1.79E+01	0.0000E+00	1.438E-05	0.0000E+00
1.78E+01	0.0000E+00	1.438E-05	0.0000E+00
1.77E+01	0.0000E+00	1.438E-05	0.0000E+00
1.76E+01	0.0000E+00	1.438E-05	0.0000E+00
1.75E+01	0.0000E+00	1.438E-05	0.0000E+00
1.74E+01	0.0000E+00	1.438E-05	0.0000E+00
1.73E+01	0.0000E+00	1.438E-05	0.0000E+00
1.72E+01	0.0000E+00	1.438E-05	0.0000E+00
1.71E+01	0.0000E+00	1.438E-05	0.0000E+00
1.70E+01	0.0000E+00	1.438E-05	0.0000E+00
1.69E+01	0.0000E+00	1.438E-05	0.0000E+00
1.68E+01	0.0000E+00	1.438E-05	0.0000E+00

1.67E+01	0.0000E+00	1.438E-05	0.0000E+00
1.66E+01	0.0000E+00	1.438E-05	0.0000E+00
1.65E+01	0.0000E+00	1.438E-05	0.0000E+00
1.64E+01	0.0000E+00	1.438E-05	0.0000E+00
1.63E+01	0.0000E+00	1.438E-05	0.0000E+00
1.62E+01	0.0000E+00	1.438E-05	0.0000E+00
1.61E+01	0.0000E+00	1.438E-05	0.0000E+00
1.60E+01	0.0000E+00	1.438E-05	0.0000E+00
1.59E+01	0.0000E+00	1.438E-05	0.0000E+00
1.58E+01	0.0000E+00	1.438E-05	0.0000E+00
1.57E+01	0.0000E+00	1.438E-05	0.0000E+00
1.56E+01	0.0000E+00	1.438E-05	0.0000E+00
1.55E+01	0.0000E+00	1.438E-05	0.0000E+00
1.54E+01	0.0000E+00	1.438E-05	0.0000E+00
1.53E+01	0.0000E+00	1.438E-05	0.0000E+00
1.52E+01	0.0000E+00	1.438E-05	0.0000E+00
1.51E+01	0.0000E+00	1.438E-05	0.0000E+00
1.50E+01	0.0000E+00	1.438E-05	0.0000E+00
1.49E+01	0.0000E+00	1.438E-05	0.0000E+00
1.48E+01	0.0000E+00	1.438E-05	0.0000E+00
1.47E+01	0.0000E+00	1.438E-05	0.0000E+00
1.46E+01	0.0000E+00	1.438E-05	0.0000E+00
1.45E+01	0.0000E+00	1.438E-05	0.0000E+00
1.44E+01	0.0000E+00	1.438E-05	0.0000E+00
1.43E+01	0.0000E+00	1.438E-05	0.0000E+00
1.42E+01	0.0000E+00	1.438E-05	0.0000E+00
1.41E+01	0.0000E+00	1.438E-05	0.0000E+00
1.40E+01	0.0000E+00	1.438E-05	0.0000E+00
1.39E+01	0.0000E+00	1.438E-05	0.0000E+00
1.38E+01	0.0000E+00	1.438E-05	0.0000E+00
1.37E+01	0.0000E+00	1.438E-05	0.0000E+00
1.36E+01	0.0000E+00	1.438E-05	0.0000E+00
1.35E+01	0.0000E+00	1.438E-05	0.0000E+00
1.34E+01	0.0000E+00	1.438E-05	0.0000E+00
1.33E+01	0.0000E+00	1.438E-05	0.0000E+00
1.32E+01	0.0000E+00	1.438E-05	0.0000E+00
1.31E+01	0.0000E+00	1.438E-05	0.0000E+00
1.30E+01	0.0000E+00	1.438E-05	0.0000E+00
1.29E+01	0.0000E+00	1.438E-05	0.0000E+00
1.28E+01	0.0000E+00	1.438E-05	0.0000E+00
1.27E+01	0.0000E+00	1.438E-05	0.0000E+00
1.26E+01	0.0000E+00	1.438E-05	0.0000E+00
1.25E+01	0.0000E+00	1.438E-05	0.0000E+00
1.24E+01	0.0000E+00	1.438E-05	0.0000E+00
1.23E+01	0.0000E+00	1.438E-05	0.0000E+00
1.22E+01	0.0000E+00	1.438E-05	0.0000E+00
1.21E+01	0.0000E+00	1.438E-05	0.0000E+00
1.20E+01	0.0000E+00	1.438E-05	0.0000E+00
1.19E+01	0.0000E+00	1.438E-05	0.0000E+00
1.18E+01	0.0000E+00	1.438E-05	0.0000E+00
1.17E+01	0.0000E+00	1.438E-05	0.0000E+00
1.16E+01	0.0000E+00	1.438E-05	0.0000E+00
1.15E+01	0.0000E+00	1.438E-05	0.0000E+00
1.14E+01	0.0000E+00	1.438E-05	0.0000E+00
1.13E+01	0.0000E+00	1.438E-05	0.0000E+00
1.12E+01	0.0000E+00	1.438E-05	0.0000E+00
1.11E+01	0.0000E+00	1.438E-05	0.0000E+00
1.10E+01	0.0000E+00	1.438E-05	0.0000E+00
1.09E+01	0.0000E+00	1.438E-05	0.0000E+00
1.08E+01	0.0000E+00	1.438E-05	0.0000E+00
1.07E+01	0.0000E+00	1.438E-05	0.0000E+00
1.06E+01	0.0000E+00	1.438E-05	0.0000E+00

1.05E+01	0.0000E+00	1.438E-05	0.0000E+00
1.04E+01	0.0000E+00	1.438E-05	0.0000E+00
1.03E+01	0.0000E+00	1.438E-05	0.0000E+00
1.02E+01	0.0000E+00	1.438E-05	0.0000E+00
1.01E+01	0.0000E+00	1.438E-05	0.0000E+00
1.00E+01	5.0630E+09	1.438E-05	7.2781E+04
9.90E+00	5.0630E+09	1.438E-05	7.2781E+04
9.80E+00	5.0630E+09	1.438E-05	7.2781E+04
9.70E+00	5.0630E+09	1.438E-05	7.2781E+04
9.60E+00	5.0630E+09	1.438E-05	7.2781E+04
9.50E+00	5.0630E+09	1.438E-05	7.2781E+04
9.40E+00	5.0630E+09	1.438E-05	7.2781E+04
9.30E+00	5.0630E+09	1.438E-05	7.2781E+04
9.20E+00	5.0630E+09	1.438E-05	7.2781E+04
9.10E+00	5.0630E+09	1.438E-05	7.2781E+04
9.00E+00	5.0630E+09	1.438E-05	7.2781E+04
8.90E+00	5.0630E+09	1.438E-05	7.2781E+04
8.80E+00	5.0630E+09	1.438E-05	7.2781E+04
8.70E+00	5.0630E+09	1.438E-05	7.2781E+04
8.60E+00	5.0630E+09	1.438E-05	7.2781E+04
8.50E+00	5.0630E+09	1.438E-05	7.2781E+04
8.40E+00	5.0630E+09	1.438E-05	7.2781E+04
8.30E+00	5.0630E+09	1.438E-05	7.2781E+04
8.20E+00	5.0630E+09	1.438E-05	7.2781E+04
8.10E+00	5.0630E+09	1.438E-05	7.2781E+04
8.00E+00	5.0630E+09	1.438E-05	7.2781E+04
7.90E+00	5.0630E+09	1.438E-05	7.2781E+04
7.80E+00	5.0630E+09	1.438E-05	7.2781E+04
7.70E+00	5.0630E+09	1.438E-05	7.2781E+04
7.60E+00	5.0630E+09	1.438E-05	7.2781E+04
7.50E+00	5.0630E+09	1.438E-05	7.2781E+04
7.40E+00	5.0630E+09	1.438E-05	7.2781E+04
7.30E+00	5.0630E+09	1.438E-05	7.2781E+04
7.20E+00	5.0630E+09	1.438E-05	7.2781E+04
7.10E+00	5.0630E+09	1.438E-05	7.2781E+04
7.00E+00	5.0630E+09	1.438E-05	7.2781E+04
6.90E+00	5.0630E+09	1.438E-05	7.2781E+04
6.80E+00	5.0630E+09	1.438E-05	7.2781E+04
6.70E+00	5.0630E+09	1.438E-05	7.2781E+04
6.60E+00	5.0630E+09	1.438E-05	7.2781E+04
6.50E+00	5.0630E+09	1.438E-05	7.2781E+04
6.40E+00	5.0630E+09	1.438E-05	7.2781E+04
6.30E+00	5.0630E+09	1.438E-05	7.2781E+04
6.20E+00	5.0630E+09	1.438E-05	7.2781E+04
6.10E+00	5.0630E+09	1.438E-05	7.2781E+04
6.00E+00	5.0630E+09	1.438E-05	7.2781E+04
5.90E+00	5.0630E+09	1.438E-05	7.2781E+04
5.80E+00	5.0630E+09	1.438E-05	7.2781E+04
5.70E+00	5.0630E+09	1.438E-05	7.2781E+04
5.60E+00	5.0630E+09	1.438E-05	7.2781E+04
5.50E+00	5.0630E+09	1.438E-05	7.2781E+04
5.40E+00	5.0630E+09	1.438E-05	7.2781E+04
5.30E+00	5.0630E+09	1.438E-05	7.2781E+04
5.20E+00	5.0630E+09	1.438E-05	7.2781E+04
5.10E+00	5.0630E+09	1.438E-05	7.2781E+04
5.00E+00	5.0630E+09	1.438E-05	7.2781E+04
4.90E+00	5.0630E+09	1.438E-05	7.2781E+04
4.80E+00	5.0630E+09	1.438E-05	7.2781E+04
4.70E+00	5.0630E+09	1.438E-05	7.2781E+04
4.60E+00	5.0630E+09	1.438E-05	7.2781E+04
4.50E+00	5.0630E+09	1.438E-05	7.2781E+04
4.40E+00	5.0630E+09	1.438E-05	7.2781E+04

4.30E+00	5.0630E+09	1.438E-05	7.2781E+04
4.20E+00	5.0630E+09	1.438E-05	7.2781E+04
4.10E+00	5.0630E+09	1.438E-05	7.2781E+04
4.00E+00	5.0630E+09	1.438E-05	7.2781E+04
3.90E+00	5.0630E+09	1.438E-05	7.2781E+04
3.80E+00	5.0630E+09	1.438E-05	7.2781E+04
3.70E+00	5.0630E+09	1.438E-05	7.2781E+04
3.60E+00	5.0630E+09	1.438E-05	7.2781E+04
3.50E+00	5.0630E+09	1.438E-05	7.2781E+04
3.40E+00	5.0630E+09	1.438E-05	7.2781E+04
3.30E+00	5.0630E+09	1.438E-05	7.2781E+04
3.20E+00	5.0630E+09	1.438E-05	7.2781E+04
3.10E+00	5.0630E+09	1.438E-05	7.2781E+04
3.00E+00	5.0630E+09	1.438E-05	7.2781E+04
2.90E+00	5.0630E+09	1.438E-05	7.2781E+04
2.80E+00	5.0630E+09	1.438E-05	7.2781E+04
2.70E+00	5.0630E+09	1.438E-05	7.2781E+04
2.60E+00	5.0630E+09	1.438E-05	7.2781E+04
2.50E+00	5.0630E+09	1.438E-05	7.2781E+04
2.40E+00	5.0630E+09	1.438E-05	7.2781E+04
2.30E+00	5.0630E+09	1.438E-05	7.2781E+04
2.20E+00	5.0630E+09	1.438E-05	7.2781E+04
2.10E+00	5.0630E+09	1.438E-05	7.2781E+04
2.00E+00	5.0630E+09	1.438E-05	7.2781E+04
1.90E+00	5.0630E+09	1.438E-05	7.2781E+04
1.80E+00	5.0630E+09	1.438E-05	7.2781E+04
1.70E+00	5.0630E+09	1.438E-05	7.2781E+04
1.60E+00	5.0630E+09	1.438E-05	7.2781E+04
1.50E+00	5.0630E+09	1.438E-05	7.2781E+04
1.40E+00	5.0630E+09	1.438E-05	7.2781E+04
1.30E+00	5.0630E+09	1.438E-05	7.2781E+04
1.20E+00	5.0630E+09	1.438E-05	7.2781E+04
1.10E+00	5.0630E+09	1.438E-05	7.2781E+04
1.00E+00	5.0630E+09	1.438E-05	7.2781E+04
9.00E-01	2.1475E+09	1.438E-05	3.0871E+04
8.00E-01	2.1475E+09	1.438E-05	3.0871E+04
7.00E-01	2.1475E+09	1.438E-05	3.0871E+04
6.00E-01	2.1475E+09	1.438E-05	3.0871E+04
5.00E-01	2.1475E+09	1.438E-05	3.0871E+04
4.00E-01	2.1475E+09	1.438E-05	3.0871E+04
3.00E-01	2.1475E+09	1.438E-05	3.0871E+04
2.00E-01	2.1475E+09	1.438E-05	3.0871E+04
1.00E-01	2.1475E+09	1.438E-05	3.0871E+04

Attachment B: ANITA Flux File for AJBRF Reactor

FL4.175 File

```
     1     175  ITER-FEAT  IN BLK01 IG100%    Z 40
0.0000E+000.8000E+000.8000E+000.8000E+000.8000E+000.8000E+000.8000E+00
1.1075E+131.6450E+121.3511E+122.8791E+112.0290E+112.4519E+112.8188E+11
3.0356E+112.9152E+112.6507E+112.5536E+112.3850E+112.2347E+112.2473E+11
2.3342E+112.3377E+112.3521E+117.8849E+101.5872E+112.4508E+112.5353E+11
2.5984E+112.6980E+112.7769E+112.8801E+113.0088E+116.4485E+116.9372E+11
7.8550E+114.2479E+114.4152E+114.6008E+114.6970E+115.1460E+115.4051E+11
3.9208E+111.0642E+111.0531E+112.0522E+114.3864E+116.7504E+116.9569E+11
7.0763E+117.5315E+118.3326E+118.8412E+119.1036E+119.2874E+119.8058E+11
1.0489E+121.0589E+121.0775E+121.2423E+121.2041E+122.2493E+129.2604E+11
1.4494E+121.2283E+121.3654E+121.3609E+121.3765E+121.5541E+121.5127E+12
1.5107E+121.3194E+121.3559E+121.3356E+121.2448E+121.2330E+122.4049E+12
2.2010E+121.1712E+121.3910E+122.5556E+122.4860E+122.9659E+111.0079E+11
2.0794E+114.9100E+111.0069E+122.0207E+121.0071E+129.8671E+119.8020E+11
8.6880E+117.7289E+119.5321E+111.0513E+128.3429E+118.4604E+118.1112E+11
6.0402E+118.4049E+119.7229E+118.5264E+118.2942E+116.9883E+111.5118E+12
1.7059E+124.7665E+117.0407E+111.0708E+129.5168E+112.0811E+127.9677E+11
1.5959E+121.2840E+121.6384E+127.2497E+115.8725E+112.3162E+115.6485E+11
9.1264E+114.4575E+113.3732E+118.7053E+111.2012E+121.7485E+122.4855E+12
8.8048E+111.0591E+121.9789E+122.0793E+122.0830E+121.3159E+129.1594E+11
8.7589E+117.9516E+113.1864E+112.6974E+115.8759E+116.4222E+112.4713E+12
2.0986E+121.8867E+121.8842E+121.7289E+121.8102E+121.3848E+121.9465E+12
1.7848E+121.7444E+121.5306E+121.7730E+121.7025E+121.6591E+121.6350E+12
1.4760E+121.5345E+121.5342E+121.5146E+121.4871E+121.4503E+121.4198E+12
1.3840E+121.3446E+121.3018E+121.2558E+121.2064E+121.1542E+121.0985E+12
1.0399E+129.7900E+119.1522E+118.4956E+117.8280E+112.2809E+122.6475E+12
     2     175  AJBRF Normalized Flux (Initial)
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+005.1168E+095.1168E+09
5.1168E+095.1168E+095.1168E+095.1168E+095.1168E+095.1168E+095.1168E+09
5.1168E+095.1168E+095.1168E+095.1168E+095.1168E+095.1168E+095.1168E+09
5.1168E+095.1168E+095.1168E+095.1168E+095.1168E+095.1168E+095.1168E+09
5.1168E+095.1168E+095.1168E+095.1168E+095.1168E+095.1168E+095.1168E+09
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5.1168E+095.1168E+095.1168E+095.1168E+095.1168E+095.1168E+095.1168E+09
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5.1168E+095.1168E+095.1168E+095.1168E+095.1168E+095.1168E+095.1168E+09
5.1168E+095.1168E+095.1168E+095.1168E+095.1168E+092.1703E+092.1703E+09
2.1703E+092.1703E+092.1703E+092.1703E+092.1703E+092.1703E+092.1703E+09
     3     175  AJBRF Normalized Flux (Final)
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+005.0630E+095.0630E+09
5.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+09
5.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+09
5.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+09
5.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+09
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5.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+09
5.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+09
5.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+09
5.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+09
5.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+09
5.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+09
5.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+09
5.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+095.0630E+09
5.0630E+095.0630E+095.0630E+095.0630E+095.0630E+092.1475E+092.1475E+09
2.1475E+092.1475E+092.1475E+092.1475E+092.1475E+092.1475E+092.1475E+09
4 175 AJBRF Specimen Flux (Initial)
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+001.4347E+091.4347E+09
1.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+09
1.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+09
1.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+09
1.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+09
1.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+09
1.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+09
1.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+09
1.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+09
1.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+09
1.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+091.4347E+09
1.4347E+091.4347E+091.4347E+091.4347E+091.4347E+096.0853E+086.0853E+08
6.0853E+086.0853E+086.0853E+086.0853E+086.0853E+086.0853E+086.0853E+08
5 175 AJBRF Pneumatic Flux (Initial)
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+003.9452E+093.9452E+09
3.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+09
3.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+09
3.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+09
3.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+09
3.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+09
3.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+09
3.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+09
3.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+09
3.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+09
3.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+093.9452E+09
3.9452E+093.9452E+093.9452E+093.9452E+093.9452E+091.6734E+091.6734E+09
1.6734E+091.6734E+091.6734E+091.6734E+091.6734E+091.6734E+091.6734E+09
6 175 AJBRF Soil (Side) Flux
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00

```
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+002.7857E+052.7857E+05
2.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+05
2.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+05
2.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+05
2.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+05
2.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+05
2.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+05
2.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+05
2.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+05
2.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+05
2.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+052.7857E+05
2.7857E+052.7857E+052.7857E+052.7857E+052.7857E+051.1816E+051.1816E+05
1.1816E+051.1816E+051.1816E+051.1816E+051.1816E+051.1816E+051.1816E+05
    7     175  AJBRF Soil (Bottom) Flux
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+000.0000E+00
0.0000E+000.0000E+000.0000E+000.0000E+007.2781E+047.2781E+04
7.2781E+047.2781E+047.2781E+047.2781E+047.2781E+047.2781E+047.2781E+04
7.2781E+047.2781E+047.2781E+047.2781E+047.2781E+047.2781E+047.2781E+04
7.2781E+047.2781E+047.2781E+047.2781E+047.2781E+047.2781E+047.2781E+04
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7.2781E+047.2781E+047.2781E+047.2781E+047.2781E+047.2781E+047.2781E+04
7.2781E+047.2781E+047.2781E+047.2781E+047.2781E+047.2781E+047.2781E+04
7.2781E+047.2781E+047.2781E+047.2781E+047.2781E+043.0871E+043.0871E+04
3.0871E+043.0871E+043.0871E+043.0871E+043.0871E+043.0871E+043.0871E+04
```

```
1)
concinv
concclr
   10    7NYAJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital.
 2.35      1.0000-12  1.0      NBS Concrete Slab
H     0.5599
O    49.8250
Na    1.7098
Mg    0.2400
Al    4.5595
Si   31.5768
S     0.1200
K     1.9198
Ca    8.2592
Fe    1.2299
         1         1
2.88000+040.00000+00
5.76400+04
0
         2         1
2.88000+045.76400+04
2.88000+045.76400+04
5.76400+04
0
         3         1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
5.76400+04
0
         4         1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
5.76400+04
0
         5         1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.30400+05
0
        -1

2)
1061inv
1061clr
    9    2NYAJBRF probid 11/04/02 12:00:00
AJBRF Omaha Veterans Affairs Hospital.
 2.70      1.0000-12  1.0           AL-6061
Si  0.60
Mn  0.15
Cu  0.27
```

```
Mg  1.0
Ti  0.15
Zn  0.25
Cr  0.20
Fe  0.70
Al 96.68
          1          1
2.88000+040.00000+00
5.76400+04
0
          2          1
2.88000+045.76400+04
2.88000+045.76400+04
5.76400+04
0
          3          1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
5.76400+04
0
          4          1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
5.76400+04
0
          5          1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.30400+05
0
         -1

3)
soilinv
soilclr
    8    6YYAJBRF Soil Region, probid 11/03/02 12:00:00
AJBRF Omaha Veterans Affairs Hospital.
 1.46      1.0000-12  1.0      Soil
O    46.6000
Si   27.7200
Al    8.1300
Fe    5.0000
Mg    2.0900
Ca    5.0400
Na    2.8300
K     2.5900
          1          1
2.88000+041.00000+00
5.76400+04
0
          2          1
```

```
2.88000+045.76400+04
2.88000+041.00000+00
5.76400+04
0
         3         1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+041.00000+00
5.76400+04
0
         4         1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+041.00000+00
5.76400+04
0
         5         1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+041.00000+00
2.30400+05
0
        -1

4)
epoinv
epoclr
AJBRF Veterans Affairs Hospital.
 1.10      1.0000-12  1.0      Epoxy
H     3.0189
C    21.5845
O    28.6342
Mg    2.86342
Al    0.0080
Si    4.3454
Cl   21.2368
Ca    0.1080
Ti   18.1239
Fe    0.0423
         1         1
2.88000+041.00000+00
5.76400+04
0
         2         1
2.88000+045.76400+04
2.88000+041.00000+00
5.76400+04
0
         3         1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+041.00000+00
5.76400+04
0
```

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          4          1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+041.00000+00
5.76400+04
0
          5          1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+041.00000+00
2.30400+05
0
         -1

5)
cstinv
cstclr
    6    5YYOVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.
 7.87       1.0000-12  1.0      Carbon Steel
C   0.15
P   0.04
S   0.05
Cu  0.20
Mn  0.36
Fe 99.20
          1          1
2.88000+041.00000+00
5.76400+04
0
          2          1
2.88000+045.76400+04
2.88000+041.00000+00
5.76400+04
0
          3          1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+041.00000+00
5.76400+04
0
          4          1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+041.00000+00
5.76400+04
0
          5          1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+041.00000+00
```

```
2.30400+05
0
        -1

6)
grapinv
grapclr
    1    2NYAJBRF probid 11/04/02 12:00:00
AJBRF Omaha Veterans Affairs Hospital.
 2.25      1.0000-12  1.0      Graphite
C  100.0
         1         1
2.88000+041.00000+00
5.76400+04
0
         2         1
2.88000+045.76400+04
2.88000+041.00000+00
5.76400+04
0
         3         1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+041.00000+00
5.76400+04
0
         4         1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+041.00000+00
5.76400+04
0
         5         1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+041.00000+00
2.30400+05
0
        -1

7)
1061inv
1061clr
    9    2NYAJBRF probid 11/04/02 12:00:00
AJBRF Omaha Veterans Affairs Hospital.
 2.70      1.0000-12  1.0          AL-6061
Si  0.60
Mn  0.15
Cu  0.27
Mg  1.0
Ti  0.15
Zn  0.25
Cr  0.20
Fe  0.70
```

```
Al 96.68
          1          1
4.46340+080
1.92960+07
0
        -1
```

The purpose of this part of the calculation is to:

1) Calculate the penetrating flux for the AJBRF reactor using the methodology presented in Appendix D of the Safety Analysis Report (SAR).
2) Calculate the penetrating flux for the AJBRF reactor at various distances from the core centerline.

The results of the flux calculation will be used to estimate the soil activation.

Assumptions

1. The non-hydrogenous materials are less than 5 relaxation lengths thick (see Appendix D Assumption 1 of the SAR).
2. The hydrogenous materials are less than 50 centimeters (cm) between the source and the shield (see Appendix D Assumption 2 of the SAR).
3. The fission neutron spectrum on the outside of the core reflector is $3x10^{10}$ n/cm^2/sec (see Appendix D Assumption 3 of the SAR).
4. The fission neutron spectrum on the bottom of the core is $1.2x10^{11}$ n/cm^2/sec (see Appendix D Assumption 4 of the SAR).
5. The reactor vessel is assumed to be constructed of carbon steel (see Appendix D Assumption 5 of the SAR).
6. The thickness of Gunite was neglected in these calculations (see Appendix D Assumption 6 of the SAR).

Inputs

1. Technical information, attenuation coefficients, and equations and methods found in Appendix D of the SAR).
2. Calculations performed using MicroSoft Excel.

Method

The attenuation coefficients are based on an idealized fission spectrum in an infinite homogenous medium into which a non-hydrogenous component in the form of a homogeneous slab of thickness t is inserted. According to reference 3 of the SAR, experimental results have shown the attenuation is related to the flux with the slab in position to the flux at a distance x from the source, without the slab, by

$$\Phi = \Phi_0 e^{\mu * t}$$

where μ is the removal coefficient and has a constant characteristic of the non-hydrogenous component for a given fission energy spectrum. Two important requirements must be met for the removal constant to be valid. These are assumptions number 1 and number 2 above.

To calculate the removal coefficients for various compounds, the following empirical formula was developed in the SAR to permit interpolation between measured values.

$$\mu/\rho = 0.206\ A^{-0.333}\ Z^{-0.294}$$

where A and Z are the atomic mass and atomic number, respectively, for the elements of concern.

Table 1: Removal Coefficients and Attenuation Lengths

Material	Removal Coefficients (μ)	Attenuation Length ($1/\mu$)
Water	0.103	9.7
Paraffin	0.106	9.4
Iron	0.158	6.34
Concrete (6% water)	0.089	11.3
Graphite (density 1.54)	0.079	12.7
Taken from Protection Against Neutron Radiation, NCRP Report No. 38		

From Table 2 of Appendix D the flux at the side of the reactor vessel is $3x10^{10}$ n/cm^2/sec. The calculated neutron flux at the surface of the reactor vessel is $2.6x10^7$ n/cm^2/sec.

Based on the above equations and the constants presented on D-3 of Appendix D, the removal coefficients and attenuation length for soil was calculated in Table 2 and the neutron flux was determined in soil out to 100cm.

Table 2: Soil Removal Coefficients and Flux Determination								
Isotope	Atomic Weight	Atomic Number	%	Z_{eff}		A_{eff}		
O	16	8	46.6	3.728		7.456		
Si	28.09	14	27.72	3.8808		7.786548		
Al	26.98	13	8.13	1.0569		2.193474		
Fe	55.85	26	5	1.3		2.7925		
Mg	24.32	12	2.09	0.2508		0.508288		
Ca	40.08	20	5.04	1.008		2.020032		
Na	22.997	11	2.83	0.3113		0.650815		
K	39.1	19	2.59	0.4921		1.01269		
			100	12.0279		24.42035	0.051309	
	m1	m2	m3		cm	m4	flux	fraction
	4.7071	2.225	0.10304	2.642E+07	0	7.035	2.642E+07	
			7.03514		10	7.54809	1.581E+07	5.986E-01
					20	8.061181	9.467E+06	5.986E-01
					30	8.574271	5.667E+06	5.986E-01
Z_{eff} = Atomic Number * (%/100)					40	9.087361	3.393E+06	5.986E-01
A_{eff} = Atomic Weight * (%/100)					50	9.600451	2.031E+06	5.986E-01
m1 = 0.103 x 45.7 (water thickness at centerline)					60	10.11354	1.216E+06	5.986E-01
m2 = 0.089 x 25 (concrete thickness at centerline)					70	10.62663	7.278E+05	5.986E-01
m3 = 0.161 x 0.64 (Vessel thickness at centerline)					80	11.13972	4.357E+05	5.986E-01
m4 = 0.051 x (soil thickness at centerline)					90	11.65281	2.608E+05	5.986E-01
					100	12.1659	1.561E+05	5.986E-01

The second part of this calculation was to calculate the penetrating flux for the AJBRF reactor at various vertical distances from the core centerline. The distances chosen for this part of the calculation were 121.92 cm (4feet) and 137.16cm (4.5 feet).

Distances were calculated based on:

(1) $c = (a^2 + b^2)^{0.5}$ Pythagorean's Theorem
(2) b = a/(tan (20.26*Pi()/180))
(3) c = a/(sin (20.26*Pi()/180))

Pythagorean's Theorem was used to "c" or 129.9596 cm with "a" equal to 45 cm and "b" equal to 121.92 cm, the vertical distance from the reactor centerline. The horizontal distance was then moved to 46 cm that corresponds to a distance 1 cm inside the concrete wall, and the length of "b" and "c" determined using equations #2 and #3 above with an angle of 20.26 degrees (see Table 3). Distances "b" and "c" were subsequently determined at 2.54 cm increments out to 70 cm that corresponds to the carbon steel vessel inner boundary (see Table 3). Distances "b" and "c" were determined with "a" equal to 70.64 cm that corresponds to the carbon steel vessel outer boundary (see Table 3).

The vertical flux was then determined (see Table 4) based on the methodology shown in Table 2 and distances determined in Table 3. The Base line of Table 4 corresponds to the reactor flux as determined in Table 2. From Table 4, the horizontal flux above the reactor in the concrete is reduced by a factor of 356 at 4 feet and 684 at 4.5 feet.

Table 3: Distance Determination

		a	45	46	48.54	51.08	53.62	56.16	58.7	61.24	63.78	66.32	68.86	70	70.64
	4'	b	121.9200	124.6215	131.5027	138.3840	145.2653	152.1466	159.0278	165.9091	172.7904	179.6716	186.5529	189.6414	191.3752
		c	129.9596	132.8402	140.1753	147.5103	154.8454	162.1805	169.5156	176.8507	184.1858	191.5209	198.8560	202.1481	203.9963
				2.8806	10.2157	17.5508	24.8859	32.2210	39.5561	46.8911	54.2262	61.5613	68.8964	72.1885	74.0367
		a	45	46	48.54	51.08	53.62	56.16	58.7	61.24	63.78	66.32	68.86	70	70.64
	4.5'	b	137.1600	140.2397	147.9834	155.7270	163.4707	171.2144	178.9580	186.7017	194.4454	202.1891	209.9327	213.4082	215.3594
		c	144.3533	147.5912	155.7408	163.8904	172.0400	180.1896	188.3392	196.4888	204.6384	212.7881	220.9377	224.5953	226.6488
				3.2380	11.3876	19.5372	27.6868	35.8364	43.9860	52.1356	60.2852	68.4348	76.5844	80.2421	82.2955

Table 4: Flux Determination

4' Vertical		Water	Concrete	Steel	Summation	Flux
		m1	m2	m3	m1+m2+m3	n/cm²/sec
Base	cm	4.7071	2.2250	0.1030	7.0351	2.641E+07
Concrete	46	13.3858	0.2564	0.2976	13.9398	2.649E+04
Concrete	48.54	13.3858	0.9092	0.2976	14.5926	1.379E+04
Concrete	51.08	13.3858	1.5620	0.2976	15.2454	7.180E+03
Concrete	53.62	13.3858	2.2148	0.2976	15.8982	3.738E+03
Concrete	58.7	13.3858	2.8677	0.2976	16.5511	1.946E+03
Concrete	61.4	13.3858	3.5205	0.2976	17.2039	1.013E+03
Concrete	63.78	13.3858	4.1733	0.2976	17.8567	5.273E+02
Concrete	66.32	13.3858	4.8261	0.2976	18.5095	2.745E+02
Concrete	68.86	13.3858	5.4790	0.2976	19.1624	1.429E+02
Concrete	70	13.3858	6.1318	0.2976	19.8152	7.439E+01
Steel	70.64	13.3858	6.4248	0.2976	20.1082	5.549E+01

4.5' Vertical		Water	Concrete	Steel	Summation	Flux
		m1	m2	m3	m1+m2+m3	n/cm²/sec
Base	cm	4.7071	2.2250	0.1030	7.0351	2.641E+07
Concrete	46	14.8684	0.2882	0.3306	15.4872	5.638E+03
Concrete	48.54	14.8684	1.0135	0.3306	16.2125	2.730E+03
Concrete	51.08	14.8684	1.7388	0.3306	16.9378	1.322E+03
Concrete	53.62	14.8684	2.4641	0.3306	17.6631	6.399E+02
Concrete	58.7	14.8684	3.1894	0.3306	18.3884	3.098E+02
Concrete	61.4	14.8684	3.9148	0.3306	19.1137	1.500E+02
Concrete	63.78	14.8684	4.6401	0.3306	19.8391	7.263E+01
Concrete	66.32	14.8684	5.3654	0.3306	20.5644	3.517E+01
Concrete	68.86	14.8684	6.0907	0.3306	21.2897	1.703E+01
Concrete	70	14.8684	6.8160	0.3306	22.0150	8.244E+00
Steel	70.64	14.8684	7.1415	0.3306	22.3405	5.953E+00

ANITA-2000 INPUT FILE

```
soilinv
soilclr
    8    6NYAJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.
 2.60      1.0000-12  1.0      Soil
O    46.6000
Si   27.7200
Al    8.1300
Fe    5.0000
Mg    2.0900
Ca    5.0400
Na    2.8300
K     2.5900
          1          1
2.88000+040.00000+00
5.76400+04
0
          2          1
2.88000+045.76400+04
2.88000+045.76400+04
5.76400+04
0
          3          1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
5.76400+04
0
          4          1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
5.76400+04
0
          5          1
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.88000+045.76400+04
2.30400+05
0
        -1
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ANITA-2000 OUTPUT FILE

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AAAAA
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N   N
NN  N
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N  NN
N   N EUTRON

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DDD
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D   D
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D   D
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DDD   UEMILA
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*****************************************************
* Authors:                                          *
* Dan Gabriel Cepraga - ENEA Bologna Italy          *
* Gilio Cambi         - Bologna University Italy    *
* Manuela Frisoni     - ATHENA S.a.S. Bologna Italy *
* Gian Carlo Panini   - ENEA Bologna Italy          *
* (ANITA-2000 is based on the ANITA code by C. Ponti*
*  and S.Stramaccia     - CEC JRC Ispra,1989)       *
*****************************************************
```


The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000
contains 1840 Nuclides.

Gamma Data were supplied for 1390 Nuclides.
AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

The Library Activation library
contains12392 Reactions.
at 175 Groups.

Set of Fluxes 6 : AJBRF Soil (Side) Flux

Fluxes

0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
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0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	1.18160E+05	1.18160E+05
1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05
1.18160E+05					

Total Flux at 175 Groups : 2.64133E+07 !

DENSITY 2.600(g/cm3)

ELEM.	Weight %	AT.WEIGHT	ISO	Rel.Abb.	N/cm3
O	46.6000	16.0000			4.56020E+22
			O 16	0.99760	4.54925E+22
			O 17	0.00040	1.82408E+19
			O 18	0.00200	9.12039E+19
Si	27.7200	28.0900			1.54511E+22
			Si 28	0.92210	1.42475E+22
			Si 29	0.04690	7.24656E+20
			Si 30	0.03100	4.78984E+20
Al	8.1300	26.9800			4.71809E+21
			Al 27	1.00000	4.71809E+21
Fe	5.0000	55.8500			1.40173E+21
			Fe 54	0.05850	8.20012E+19
			Fe 56	0.91750	1.28609E+21
			Fe 57	0.02120	2.97167E+19
			Fe 58	0.00280	3.92485E+18
Mg	2.0900	24.3200			1.34555E+21
			Mg 24	0.78990	1.06285E+21
			Mg 25	0.10000	1.34555E+20
			Mg 26	0.11010	1.48145E+20
Ca	5.0400	40.0800			1.96889E+21

			Ca 40	0.96941	1.90866E+21
			Ca 42	0.00647	1.27387E+19
			Ca 43	0.00135	2.65800E+18
			Ca 44	0.02086	4.10710E+19
			Ca 46	0.00004	7.87554E+16
			Ca 48	0.00187	3.68182E+18
Na	2.8300	22.9910			1.92729E+21
			Na 23	1.00000	1.92729E+21
K	2.5900	39.1000			1.03715E+21
			K 39	0.93258	9.67224E+20
			K 40	0.00012	1.21346E+17
			K 41	0.06730	6.98021E+19

100.0000
AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Isotope	N/cm3
O 16	4.54925E+22
O 17	1.82408E+19
O 18	9.12039E+19
Na 23	1.92729E+21
Mg 24	1.06285E+21
Mg 25	1.34555E+20
Mg 26	1.48145E+20
Al 27	4.71809E+21
Si 28	1.42475E+22
Si 29	7.24656E+20
Si 30	4.78984E+20
K 39	9.67224E+20
K 40	1.21346E+17
K 41	6.98021E+19
Ca 40	1.90866E+21
Ca 42	1.27387E+19
Ca 43	2.65800E+18
Ca 44	4.10710E+19
Ca 46	7.87554E+16
Ca 48	3.68182E+18
Fe 54	8.20012E+19
Fe 56	1.28609E+21
Fe 57	2.97167E+19
Fe 58	3.92485E+18

In Total : 7.34518E+22 Min. acceptable Conc. : 7.34518E+10 N/cm3.

Elapsed Time.

Step 1 : Activation of 2.88000E+04(s), i.e. 8.00 (h) 8.00 (h) Intervals : 2

Cooling Times (s) :

5.7640E+04

16.0 (h)
AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 8.00 (h) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
O 16	4.5493E+22								
O 17	1.8241E+19								
O 18	9.1204E+19								
Na 23	1.9273E+21								
Na 24	2.3668E+07	2.2786E-10	1.7733E-05	4.8244E+02	3.0414E+02	8.2200E-09	1.3053E-04	1.498E+01 (h)	Na 24
Na 24m1	2.1629E+01	5.7510E-11	1.6762E-12	1.3414E+02	7.4207E+02	2.0056E-08	1.3347E-10	2.020E-02 (s)	Na 24m1
Mg 24	1.0629E+21								
Mg 25	1.3456E+20								
Mg 26	1.4815E+20								
Mg 27	3.0940E+03	9.6408E-13	7.8958E-10	1.2946E+00	3.7778E+00	1.0210E-10	7.1821E-08	9.461E+00 (m)	Mg 27
Al 27	4.7181E+21								
Al 28	1.5628E+05	3.8982E-10	7.5620E-08	5.5243E+02	8.0562E+02	2.1774E-08	3.9491E-06	2.241E+00 (m)	Al 28
Si 28	1.4247E+22								
Si 29	7.2466E+20								
Si 30	4.7898E+20								
Si 31	9.8982E+06	6.9394E-11	9.4491E-07	2.5163E-01	7.2692E+02	1.9647E-08	1.1631E-04	2.622E+00 (h)	Si 31
K 39	9.6722E+20								
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6278E-11	1.2934E-05	1.280E+03(My)	K 40
K 41	6.9802E+19								
K 42	3.5969E+06	1.5363E-11	9.8735E-07	6.3799E+00	5.5967E+01	1.5126E-09	2.4020E-05	1.237E+01 (h)	K 42
Ca 40	1.9087E+21								
Ca 42	1.2739E+19								
Ca 43	2.6580E+18								
Ca 44	4.1071E+19								
Ca 46	7.8755E+16								
Ca 48	3.6818E+18								
Ca 49	1.5936E+03	1.3655E-12	1.0305E-09	2.5721E+00	2.1115E+00	5.7069E-11	2.7458E-07	8.719E+00 (m)	Ca 49
Sc 49	1.0417E+04	2.7594E-13	1.3660E-09	8.0928E-04	2.1041E+00	5.6869E-11	1.7247E-07	5.719E+01 (m)	Sc 49
Fe 54	8.2001E+19								

Fe 56 1.2861E+21
Fe 57 2.9717E+19
Fe 58 3.9248E+18
here are 32 Nuclides.

Totals: 7.3452E+22 7.6279E-10 1.319857E+04 1.1796E+03 2.6448E+03 7.1481E-08 2.8826E-04
AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 8.00 (h) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.34333E+05
He	6.37705E+05
C	3.99769E+05
N	4.09601E+03
O	4.56020E+22
F	3.63934E-01
Na	1.92729E+21
Mg	1.34555E+21
Al	4.71809E+21
Si	1.54511E+22
P	1.39701E+07
S	1.57725E-06
Cl	1.62915E+05
Ar	2.08033E+05
K	1.03715E+21
Ca	1.96889E+21
Sc	1.06654E+04
Ti	4.86265E+04
V	2.94553E-07
Cr	2.69213E-05
Mn	3.25535E+04
Fe	1.40173E+21
Co	1.28887E+03

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.6877E-05	1.2159E-03
2	(0.1 -> 0.2 MeV)	5.2643E-03	3.3963E-02
3	(0.2 -> 0.4 MeV)	6.1503E-02	2.0501E-01
4	(0.4 -> 0.6 MeV)	3.4873E+02	6.9746E+02
5	(0.6 -> 0.8 MeV)	1.3214E-03	1.8877E-03
6	(0.8 -> 1.0 MeV)	2.3230E+00	2.5811E+00
7	(1.0 ->1.22 MeV)	1.0877E+00	9.7993E-01
8	(1.22 ->1.44 MeV)	4.1692E+02	3.1347E+02
9	(1.44 ->1.66 MeV)	1.6453E+01	1.0615E+01
10	(1.66 -> 2.0 MeV)	1.4330E+03	7.8307E+02
11	(2.0 -> 2.5 MeV)	6.1754E-02	2.7446E-02
12	(2.5 -> 3.0 MeV)	8.3714E+02	3.0442E+02
13	(3.0 -> 4.0 MeV)	6.6099E+00	1.8886E+00
14	(4.0 -> 5.0 MeV)	6.3269E-01	1.4060E-01
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	1.4060E-01	1.8886E+00	3.0442E+02
2.7446E-02	7.8307E+02	3.2409E+02	9.7993E-01	2.5811E+00	1.8877E-03
6.9746E+02	1.0251E-01	1.0251E-01	3.3963E-02	6.0797E-04	6.0797E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.01 (h)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
O 16	4.5493E+22							
O 17	1.8241E+19							
O 18	9.1204E+19							
Na 23	1.9273E+21							
Na 24	1.1285E+07	1.0864E-10	8.4548E-06	2.3003E+02	1.4501E+02	3.9192E-09	6.2237E-05	Na 24
Mg 24	1.0629E+21							
Mg 25	1.3456E+20							
Mg 26	1.4815E+20							
Al 27	4.7181E+21							

Si 28	1.4247E+22							
Si 29	7.2466E+20							
Si 30	4.7898E+20							
Si 31	1.4360E+05	1.0067E-12	1.3708E-08	3.6505E-03	1.0546E+01	2.8502E-10	1.6873E-06	Si 31
K 39	9.6722E+20							
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6278E-11	1.2934E-05	K 40
K 41	6.9802E+19							
K 42	1.4670E+06	6.2657E-12	4.0268E-07	2.6020E+00	2.2826E+01	6.1691E-10	9.7965E-06	K 42
Ca 40	1.9087E+21							
Ca 42	1.2739E+19							
Ca 43	2.6580E+18							
Ca 44	4.1071E+19							
Ca 46	7.8755E+16							
Ca 48	3.6818E+18							
Fe 54	8.2001E+19							
Fe 56	1.2861E+21							
Fe 57	2.9717E+19							
Fe 58	3.9248E+18							
16.0 (h)		1.1614E-10	1.319857E+04	2.3276E+02	1.8047E+02	4.8775E-09	8.6654E-05	

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.01 (h)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.6832E-05	1.2151E-03
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	2.5083E-02	8.3612E-02
4	(0.4 -> 0.6 MeV)	2.1281E-05	4.2562E-05
5	(0.6 -> 0.8 MeV)	5.3891E-04	7.6988E-04
6	(0.8 -> 1.0 MeV)	1.2622E-02	1.4025E-02
7	(1.0 ->1.22 MeV)	4.8940E-03	4.4090E-03
8	(1.22 ->1.44 MeV)	1.9848E+02	1.4923E+02
9	(1.44 ->1.66 MeV)	6.9027E+00	4.4534E+00
10	(1.66 -> 2.0 MeV)	1.8895E-02	1.0325E-02
11	(2.0 -> 2.5 MeV)	1.1503E-02	5.1125E-03
12	(2.5 -> 3.0 MeV)	3.9914E+02	1.4514E+02
13	(3.0 -> 4.0 MeV)	2.9161E-01	8.3317E-02
14	(4.0 -> 5.0 MeV)	4.6092E-03	1.0243E-03
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	1.0243E-03	8.3317E-02	1.4514E+02
5.1125E-03	1.0325E-02	1.5368E+02	4.4090E-03	1.4025E-02	7.6988E-04
4.2562E-05	4.1806E-02	4.1806E-02	0.0000E+00	6.0756E-04	6.0756E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.01 (h)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.34333E+05
He	6.37705E+05
C	3.99769E+05
N	4.09610E+03
O	4.56020E+22
F	7.27867E-01
Na	1.92729E+21
Mg	1.34555E+21
Al	4.71809E+21
Si	1.54511E+22
P	2.37247E+07
S	1.42040E-05
Cl	1.63879E+05
Ar	2.07068E+05
K	1.03715E+21
Ca	1.96889E+21
Sc	2.13606E+03
Ti	6.06454E+04
V	7.40207E-07
Cr	2.64756E-05
Mn	-3.08366E+04
Fe	1.40173E+21
Co	3.39828E+03
Totals:	7.34518E+22

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	2.949E-04	1.017E+03	2.645E+03	7.148E-02	2.883E-04	7.628E-10	1.319857E+04
16.0 (h)	5.819E-05	6.941E+01	1.805E+02	4.877E-03	8.665E-05	1.161E-10	1.319857E+04

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

For a volume of 1.0000E+00(cm3) of Soil :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.645E+03	2.949E-04	2.883E-04	7.628E-10
16.0 (h)	1.805E+02	5.819E-05	8.665E-05	1.161E-10

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.017E+06	2.934E-10	2.749E-05	1.180E+03
16.0 (h)	6.941E+04	4.467E-11	1.876E-06	2.328E+02

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.017E+03	2.949E-04	2.934E-10	1.578E+03
16.0 (h)	6.941E+01	5.819E-05	4.467E-11	1.892E+02

Elapsed Time.

Step 1 : Activation of 2.88000E+04(s), i.e. 8.00 (h) 8.00 (h) Intervals : 2
Cold Pause of 5.76400E+04(s), i.e. 16.01 (h) 1.00 (d)

Step 2 : Activation of 2.88000E+04(s), i.e. 8.00 (h) 1.33 (d) Intervals : 2

Cooling Times (s) :

5.7640E+04

16.0 (h)

AJBRF Soil Region, probid 02/17/03 12:00:00

Step : 1

Elapsed Time : 8.00 (h)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	7.3452E+22	7.6279E-10	1.319857E+04	1.1796E+03	2.6448E+03	7.1481E-08	2.8826E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 1.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	7.3452E+22	1.1614E-10	1.319857E+04	2.3276E+02	1.8047E+02	4.8775E-09	8.6654E-05

Step : 2
AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 1.33 (d) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
O 16	4.5493E+22								
O 17	1.8241E+19								
O 18	9.1204E+19								
Na 23	1.9273E+21								
Na 24	3.1463E+07	3.0290E-10	2.3572E-05	6.4132E+02	4.0430E+02	1.0927E-08	1.7352E-04	1.498E+01 (h)	Na 24
Na 24m1	2.1629E+01	5.7510E-11	1.6762E-12	1.3414E+02	7.4207E+02	2.0056E-08	1.3347E-10	2.020E-02 (s)	Na 24m1
Mg 24	1.0629E+21								
Mg 25	1.3456E+20								
Mg 26	1.4815E+20								
Mg 27	3.0940E+03	9.6408E-13	7.8958E-10	1.2946E+00	3.7778E+00	1.0210E-10	7.1821E-08	9.461E+00 (m)	Mg 27
Al 27	4.7181E+21								
Al 28	1.5628E+05	3.8982E-10	7.5620E-08	5.5243E+02	8.0562E+02	2.1774E-08	3.9491E-06	2.241E+00 (m)	Al 28
Si 28	1.4247E+22								
Si 29	7.2466E+20								
Si 30	4.7898E+20								
Si 31	9.9155E+06	6.9516E-11	9.4657E-07	2.5207E-01	7.2819E+02	1.9681E-08	1.1651E-04	2.622E+00 (h)	Si 31
K 39	9.6722E+20								
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6278E-11	1.2934E-05	1.280E+03 (My)	K 40
K 41	6.9802E+19								
K 42	4.5340E+06	1.9366E-11	1.2446E-06	8.0421E+00	7.0549E+01	1.9067E-09	3.0279E-05	1.237E+01 (h)	K 42
Ca 40	1.9087E+21								
Ca 42	1.2739E+19								
Ca 43	2.6580E+18								
Ca 44	4.1071E+19								
Ca 46	7.8755E+16								
Ca 48	3.6818E+18								
Ca 49	1.5936E+03	1.3655E-12	1.0305E-09	2.5721E+00	2.1115E+00	5.7069E-11	2.7458E-07	8.719E+00 (m)	Ca 49

Sc 49	1.0417E+04	2.7594E-13	1.3660E-09	8.0928E-04	2.1041E+00	5.6869E-11	1.7247E-07	5.719E+01 (m)	Sc 49
Fe 54	8.2001E+19								
Fe 56	1.2861E+21								
Fe 57	2.9717E+19								
Fe 58	3.9248E+18								

here are 32 Nuclides.

Totals: 7.3452E+22 8.4195E-10 1.319857E+04 1.3402E+03 2.7608E+03 7.4617E-08 3.3771E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 1.33 (d) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.68665E+05
He	1.27541E+06
C	7.99538E+05
N	8.19215E+03
O	4.56020E+22
F	1.09180E+00
Na	1.92729E+21
Mg	1.34555E+21
Al	4.71809E+21
Si	1.54511E+22
P	3.78211E+07
S	2.20903E-05
Cl	3.27271E+05
Ar	4.14623E+05
K	1.03715E+21
Ca	1.96889E+21
Sc	1.37353E+04
Ti	1.09280E+05
V	1.25466E-06
Cr	5.31770E-05
Mn	-6.25325E+04
Fe	1.40173E+21
Co	5.73294E+03

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.6905E-05	1.2165E-03
2	(0.1 -> 0.2 MeV)	5.2643E-03	3.3963E-02
3	(0.2 -> 0.4 MeV)	7.7527E-02	2.5842E-01
4	(0.4 -> 0.6 MeV)	3.4873E+02	6.9746E+02
5	(0.6 -> 0.8 MeV)	1.6657E-03	2.3795E-03
6	(0.8 -> 1.0 MeV)	2.3312E+00	2.5902E+00
7	(1.0 ->1.22 MeV)	1.0908E+00	9.8274E-01
8	(1.22 ->1.44 MeV)	5.5400E+02	4.1654E+02
9	(1.44 ->1.66 MeV)	2.0654E+01	1.3325E+01
10	(1.66 -> 2.0 MeV)	1.4330E+03	7.8307E+02
11	(2.0 -> 2.5 MeV)	6.9102E-02	3.0712E-02
12	(2.5 -> 3.0 MeV)	1.1128E+03	4.0466E+02
13	(3.0 -> 4.0 MeV)	6.8114E+00	1.9461E+00
14	(4.0 -> 5.0 MeV)	6.3587E-01	1.4130E-01
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	1.4130E-01	1.9461E+00	4.0466E+02
3.0712E-02	7.8307E+02	4.2986E+02	9.8274E-01	2.5902E+00	2.3795E-03
6.9746E+02	1.2921E-01	1.2921E-01	3.3963E-02	6.0823E-04	6.0823E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.01 (h)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
O 16	4.5493E+22							
O 17	1.8241E+19							
O 18	9.1204E+19							
Na 23	1.9273E+21							
Na 24	1.5001E+07	1.4442E-10	1.1239E-05	3.0578E+02	1.9277E+02	5.2099E-09	8.2732E-05	Na 24
Mg 24	1.0629E+21							
Mg 25	1.3456E+20							

Mg 26	1.4815E+20							
Al 27	4.7181E+21							
Si 28	1.4247E+22							
Si 29	7.2466E+20							
Si 30	4.7898E+20							
Si 31	1.4385E+05	1.0085E-12	1.3732E-08	3.6569E-03	1.0564E+01	2.8552E-10	1.6903E-06	Si 31
K 39	9.6722E+20							
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6278E-11	1.2934E-05	K 40
K 41	6.9802E+19							
K 42	1.8491E+06	7.8982E-12	5.0759E-07	3.2799E+00	2.8773E+01	7.7764E-10	1.2349E-05	K 42
Ca 40	1.9087E+21							
Ca 42	1.2739E+19							
Ca 43	2.6580E+18							
Ca 44	4.1071E+19							
Ca 46	7.8755E+16							
Ca 48	3.6818E+18							
Fe 54	8.2001E+19							
Fe 56	1.2861E+21							
Fe 57	2.9717E+19							
Fe 58	3.9248E+18							
16.0 (h)		1.5356E-10	1.319857E+04	3.0918E+02	2.3419E+02	6.3293E-09	1.0970E-04	

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.01 (h)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.6846E-05	1.2154E-03
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	3.1619E-02	1.0540E-01
4	(0.4 -> 0.6 MeV)	2.1281E-05	4.2562E-05
5	(0.6 -> 0.8 MeV)	6.7932E-04	9.7046E-04
6	(0.8 -> 1.0 MeV)	1.6005E-02	1.7784E-02
7	(1.0 ->1.22 MeV)	6.1690E-03	5.5577E-03
8	(1.22 ->1.44 MeV)	2.6383E+02	1.9837E+02
9	(1.44 ->1.66 MeV)	8.6163E+00	5.5589E+00
10	(1.66 -> 2.0 MeV)	2.3818E-02	1.3015E-02
11	(2.0 -> 2.5 MeV)	1.4500E-02	6.4445E-03
12	(2.5 -> 3.0 MeV)	5.3059E+02	1.9294E+02
13	(3.0 -> 4.0 MeV)	3.8764E-01	1.1075E-01
14	(4.0 -> 5.0 MeV)	6.1271E-03	1.3616E-03
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	1.3616E-03	1.1075E-01	1.9294E+02
6.4445E-03	1.3015E-02	2.0393E+02	5.5577E-03	1.7784E-02	9.7046E-04
4.2562E-05	5.2698E-02	5.2698E-02	0.0000E+00	6.0769E-04	6.0769E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.01 (h)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.68665E+05
He	1.27541E+06
C	7.99537E+05
N	8.19233E+03
O	4.56020E+22
F	1.45573E+00
Na	1.92729E+21
Mg	1.34555E+21
Al	4.71809E+21
Si	1.54511E+22
P	4.75927E+07
S	4.73438E-05
Cl	3.29182E+05
Ar	4.12711E+05
K	1.03715E+21
Ca	1.96889E+21
Sc	7.05946E+03
Ti	1.21321E+05
V	2.13495E-06
Cr	5.22967E-05
Mn	-5.90998E+04
Fe	1.40173E+21
Co	9.91915E+03
Totals:	7.34518E+22

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3

zero	3.350E-04	1.062E+03	2.761E+03	7.462E-02	3.377E-04	8.419E-10	1.319857E+04
16.0 (h)	7.730E-05	9.007E+01	2.342E+02	6.329E-03	1.097E-04	1.536E-10	1.319857E+04

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

For a volume of 1.0000E+00(cm3) of Soil :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.761E+03	3.350E-04	3.377E-04	8.419E-10
16.0 (h)	2.342E+02	7.730E-05	1.097E-04	1.536E-10

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.062E+06	3.238E-10	2.870E-05	1.340E+03
16.0 (h)	9.007E+04	5.906E-11	2.434E-06	3.092E+02

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.062E+03	3.350E-04	3.238E-10	1.709E+03
16.0 (h)	9.007E+01	7.730E-05	5.906E-11	2.512E+02

				Elapsed Time.	
Step 1 :	Activation of	2.88000E+04(s), i.e.	8.00 (h)	8.00 (h)	Intervals : 2
	Cold Pause of	5.76400E+04(s), i.e.	16.01 (h)	1.00 (d)	
Step 2 :	Activation of	2.88000E+04(s), i.e.	8.00 (h)	1.33 (d)	Intervals : 2
	Cold Pause of	5.76400E+04(s), i.e.	16.01 (h)	2.00 (d)	
Step 3 :	Activation of	2.88000E+04(s), i.e.	8.00 (h)	2.33 (d)	Intervals : 2

Cooling Times (s) :

5.7640E+04

16.0 (h)

AJBRF Soil Region, probid 02/17/03 12:00:00

Step : 1

Elapsed Time : 8.00 (h)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	7.3452E+22	7.6279E-10	1.319857E+04	1.1796E+03	2.6448E+03	7.1481E-08	2.8826E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 1.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	7.3452E+22	1.1614E-10	1.319857E+04	2.3276E+02	1.8047E+02	4.8775E-09	8.6654E-05

Step : 2

Elapsed Time : 1.33 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	7.3452E+22	8.4195E-10	1.319857E+04	1.3402E+03	2.7608E+03	7.4617E-08	3.3771E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	7.3452E+22	1.5356E-10	1.319857E+04	3.0918E+02	2.3419E+02	6.3293E-09	1.0970E-04

Step : 3
AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 2.33 (d) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
O 16	4.5493E+22								
O 17	1.8241E+19								
O 18	9.1204E+19								
Na 23	1.9273E+21								
Na 24	3.4030E+07	3.2761E-10	2.5495E-05	6.9364E+02	4.3728E+02	1.1818E-08	1.8767E-04	1.498E+01 (h)	Na 24
Na 24m1	2.1629E+01	5.7510E-11	1.6762E-12	1.3414E+02	7.4207E+02	2.0056E-08	1.3347E-10	2.020E-02 (s)	Na 24m1
Mg 24	1.0629E+21								
Mg 25	1.3456E+20								
Mg 26	1.4815E+20								

Mg 27	3.0940E+03	9.6408E-13	7.8958E-10	1.2946E+00	3.7778E+00	1.0210E-10	7.1821E-08	9.461E+00 (m)	Mg 27
Al 27	4.7181E+21								
Al 28	1.5628E+05	3.8982E-10	7.5620E-08	5.5243E+02	8.0562E+02	2.1774E-08	3.9491E-06	2.241E+00 (m)	Al 28
Si 28	1.4247E+22								
Si 29	7.2466E+20								
Si 30	4.7898E+20								
Si 31	9.9155E+06	6.9516E-11	9.4657E-07	2.5207E-01	7.2820E+02	1.9681E-08	1.1651E-04	2.622E+00 (h)	Si 31
K 39	9.6722E+20								
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6278E-11	1.2934E-05	1.280E+03(My)	K 40
K 41	6.9802E+19								
K 42	4.7782E+06	2.0409E-11	1.3116E-06	8.4752E+00	7.4348E+01	2.0094E-09	3.1909E-05	1.237E+01 (h)	K 42
Ca 40	1.9087E+21								
Ca 42	1.2739E+19								
Ca 43	2.6580E+18								
Ca 44	4.1071E+19								
Ca 46	7.8755E+16								
Ca 48	3.6818E+18								
Ca 49	1.5936E+03	1.3655E-12	1.0305E-09	2.5721E+00	2.1115E+00	5.7069E-11	2.7458E-07	8.719E+00 (m)	Ca 49
Sc 49	1.0417E+04	2.7594E-13	1.3660E-09	8.0928E-04	2.1041E+00	5.6869E-11	1.7247E-07	5.719E+01 (m)	Sc 49
Fe 54	8.2001E+19								
Fe 56	1.2861E+21								
Fe 57	2.9717E+19								
Fe 58	3.9248E+18								

here are 32 Nuclides.

Totals: 7.3452E+22 8.6770E-10 1.319857E+04 1.3929E+03 2.7976E+03 7.5611E-08 3.5350E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 2.33 (d) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.02998E+05
He	1.91311E+06
C	1.19931E+06
N	1.22884E+04
O	4.56020E+22
F	1.81967E+00
Na	1.92729E+21
Mg	1.34555E+21
Al	4.71809E+21
Si	1.54511E+22
P	6.16893E+07
S	6.15391E-05
Cl	4.93044E+05
Ar	6.19797E+05
K	1.03715E+21
Ca	1.96889E+21
Sc	1.95776E+04
Ti	1.69970E+05
V	2.86387E-06
Cr	7.87836E-05
Mn	-8.99387E+04
Fe	1.40173E+21
Co	1.32834E+04

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.6915E-05	1.2166E-03
2	(0.1 -> 0.2 MeV)	5.2643E-03	3.3963E-02
3	(0.2 -> 0.4 MeV)	8.1702E-02	2.7234E-01
4	(0.4 -> 0.6 MeV)	3.4873E+02	6.9746E+02
5	(0.6 -> 0.8 MeV)	1.7554E-03	2.5076E-03
6	(0.8 -> 1.0 MeV)	2.3334E+00	2.5926E+00
7	(1.0 ->1.22 MeV)	1.0917E+00	9.8348E-01
8	(1.22 ->1.44 MeV)	5.9914E+02	4.5048E+02
9	(1.44 ->1.66 MeV)	2.1749E+01	1.4032E+01
10	(1.66 -> 2.0 MeV)	1.4330E+03	7.8307E+02
11	(2.0 -> 2.5 MeV)	7.1017E-02	3.1563E-02
12	(2.5 -> 3.0 MeV)	1.2036E+03	4.3768E+02
13	(3.0 -> 4.0 MeV)	6.8777E+00	1.9651E+00
14	(4.0 -> 5.0 MeV)	6.3692E-01	1.4154E-01
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00 0.0000E+00 0.0000E+00 1.4154E-01 1.9651E+00 4.3768E+02

3.1563E-02	7.8307E+02	4.6451E+02	9.8348E-01	2.5926E+00	2.5076E-03
6.9746E+02	1.3617E-01	1.3617E-01	3.3963E-02	6.0831E-04	6.0831E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.01 (h)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
O 16	4.5493E+22							
O 17	1.8241E+19							
O 18	9.1204E+19							
Na 23	1.9273E+21							
Na 24	1.6225E+07	1.5620E-10	1.2156E-05	3.3072E+02	2.0849E+02	5.6349E-09	8.9481E-05	Na 24
Mg 24	1.0629E+21							
Mg 25	1.3456E+20							
Mg 26	1.4815E+20							
Al 27	4.7181E+21							
Si 28	1.4247E+22							
Si 29	7.2466E+20							
Si 30	4.7898E+20							
Si 31	1.4385E+05	1.0085E-12	1.3732E-08	3.6569E-03	1.0564E+01	2.8552E-10	1.6903E-06	Si 31
K 39	9.6722E+20							
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6278E-11	1.2934E-05	K 40
K 41	6.9802E+19							
K 42	1.9487E+06	8.3235E-12	5.3493E-07	3.4565E+00	3.0322E+01	8.1952E-10	1.3014E-05	K 42
Ca 40	1.9087E+21							
Ca 42	1.2739E+19							
Ca 43	2.6580E+18							
Ca 44	4.1071E+19							
Ca 46	7.8755E+16							
Ca 48	3.6818E+18							
Fe 54	8.2001E+19							
Fe 56	1.2861E+21							
Fe 57	2.9717E+19							
Fe 58	3.9248E+18							
16.0 (h)		1.6576E-10	1.319857E+04	3.3431E+02	2.5146E+02	6.7962E-09	1.1712E-04	

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.01 (h)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.6850E-05	1.2155E-03
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	3.3321E-02	1.1107E-01
4	(0.4 -> 0.6 MeV)	2.1281E-05	4.2562E-05
5	(0.6 -> 0.8 MeV)	7.1590E-04	1.0227E-03
6	(0.8 -> 1.0 MeV)	1.6918E-02	1.8797E-02
7	(1.0 ->1.22 MeV)	6.5012E-03	5.8570E-03
8	(1.22 ->1.44 MeV)	2.8536E+02	2.1455E+02
9	(1.44 ->1.66 MeV)	9.0628E+00	5.8470E+00
10	(1.66 -> 2.0 MeV)	2.5101E-02	1.3716E-02
11	(2.0 -> 2.5 MeV)	1.5281E-02	6.7915E-03
12	(2.5 -> 3.0 MeV)	5.7387E+02	2.0868E+02
13	(3.0 -> 4.0 MeV)	4.1926E-01	1.1979E-01
14	(4.0 -> 5.0 MeV)	6.6269E-03	1.4726E-03
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	1.4726E-03	1.1979E-01	2.0868E+02
6.7915E-03	1.3716E-02	2.2040E+02	5.8570E-03	1.8797E-02	1.0227E-03
4.2562E-05	5.5536E-02	5.5536E-02	0.0000E+00	6.0773E-04	6.0773E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.01 (h)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.02998E+05
He	1.91311E+06
C	1.19931E+06
N	1.22887E+04
O	4.56020E+22
F	2.18360E+00
Na	1.92729E+21
Mg	1.34555E+21
Al	4.71809E+21
Si	1.54511E+22
P	7.14610E+07

S	9.94194E-05
Cl	4.95883E+05
Ar	6.16956E+05
K	1.03715E+21
Ca	1.96889E+21
Sc	1.47281E+04
Ti	1.82042E+05
V	4.16805E-06
Cr	7.74794E-05
Mn	-8.47915E+04
Fe	1.40173E+21
Co	1.95143E+04
Totals:	7.34518E+22

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.482E-04	1.076E+03	2.798E+03	7.561E-02	3.535E-04	8.677E-10	1.319857E+04
16.0 (h)	8.358E-05	9.672E+01	2.515E+02	6.796E-03	1.171E-04	1.658E-10	1.319857E+04

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

For a volume of 1.0000E+00(cm3) of Soil :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.798E+03	3.482E-04	3.535E-04	8.677E-10
16.0 (h)	2.515E+02	8.358E-05	1.171E-04	1.658E-10

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.076E+06	3.337E-10	2.908E-05	1.393E+03
16.0 (h)	9.672E+04	6.375E-11	2.614E-06	3.343E+02

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.076E+03	3.482E-04	3.337E-10	1.751E+03
16.0 (h)	9.672E+01	8.358E-05	6.375E-11	2.716E+02

				Elapsed Time.	
Step 1 :	Activation of	2.88000E+04(s), i.e.	8.00 (h)	8.00 (h)	Intervals : 2
	Cold Pause of	5.76400E+04(s), i.e.	16.01 (h)	1.00 (d)	
Step 2 :	Activation of	2.88000E+04(s), i.e.	8.00 (h)	1.33 (d)	Intervals : 2
	Cold Pause of	5.76400E+04(s), i.e.	16.01 (h)	2.00 (d)	
Step 3 :	Activation of	2.88000E+04(s), i.e.	8.00 (h)	2.33 (d)	Intervals : 2
	Cold Pause of	5.76400E+04(s), i.e.	16.01 (h)	3.00 (d)	
Step 4 :	Activation of	2.88000E+04(s), i.e.	8.00 (h)	3.33 (d)	Intervals : 2

Cooling Times (s) :

5.7640E+04

16.0 (h)

AJBRF Soil Region, probid 02/17/03 12:00:00

Step : 1

Elapsed Time : 8.00 (h)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	7.3452E+22	7.6279E-10	1.319857E+04	1.1796E+03	2.6448E+03	7.1481E-08	2.8826E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 1.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	7.3452E+22	1.1614E-10	1.319857E+04	2.3276E+02	1.8047E+02	4.8775E-09	8.6654E-05

Step : 2

Elapsed Time : 1.33 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	7.3452E+22	8.4195E-10	1.319857E+04	1.3402E+03	2.7608E+03	7.4617E-08	3.3771E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	7.3452E+22	1.5356E-10	1.319857E+04	3.0918E+02	2.3419E+02	6.3293E-09	1.0970E-04

Step : 3

Elapsed Time : 2.33 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	7.3452E+22	8.6770E-10	1.319857E+04	1.3929E+03	2.7976E+03	7.5611E-08	3.5350E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	7.3452E+22	1.6576E-10	1.319857E+04	3.3431E+02	2.5146E+02	6.7962E-09	1.1712E-04

Step : 4
AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 3.33 (d) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
O 16	4.5493E+22								
O 17	1.8241E+19								
O 18	9.1204E+19								
Na 23	1.9273E+21								
Na 24	3.4875E+07	3.3575E-10	2.6129E-05	7.1086E+02	4.4814E+02	1.2112E-08	1.9234E-04	1.498E+01 (h)	Na 24
Na 24m1	2.1629E+01	5.7510E-11	1.6762E-12	1.3414E+02	7.4207E+02	2.0056E-08	1.3347E-10	2.020E-02 (s)	Na 24m1
Mg 24	1.0629E+21								
Mg 25	1.3456E+20								
Mg 26	1.4815E+20								
Mg 27	3.0940E+03	9.6408E-13	7.8958E-10	1.2946E+00	3.7778E+00	1.0210E-10	7.1821E-08	9.461E+00 (m)	Mg 27
Al 27	4.7181E+21								
Al 28	1.5628E+05	3.8982E-10	7.5620E-08	5.5243E+02	8.0562E+02	2.1774E-08	3.9491E-06	2.241E+00 (m)	Al 28
Si 28	1.4247E+22								
Si 29	7.2466E+20								
Si 30	4.7898E+20								
Si 31	9.9155E+06	6.9516E-11	9.4657E-07	2.5207E-01	7.2820E+02	1.9681E-08	1.1651E-04	2.622E+00 (h)	Si 31
K 39	9.6722E+20								
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6278E-11	1.2934E-05	1.280E+03(My)	K 40
K 41	6.9802E+19								
K 42	4.8418E+06	2.0680E-11	1.3291E-06	8.5880E+00	7.5338E+01	2.0362E-09	3.2334E-05	1.237E+01 (h)	K 42
Ca 40	1.9087E+21								
Ca 42	1.2739E+19								
Ca 43	2.6580E+18								
Ca 44	4.1071E+19								
Ca 46	7.8755E+16								
Ca 48	3.6818E+18								
Ca 49	1.5936E+03	1.3655E-12	1.0305E-09	2.5721E+00	2.1115E+00	5.7069E-11	2.7458E-07	8.719E+00 (m)	Ca 49
Sc 49	1.0417E+04	2.7594E-13	1.3660E-09	8.0928E-04	2.1041E+00	5.6869E-11	1.7247E-07	5.719E+01 (m)	Sc 49
Fe 54	8.2001E+19								
Fe 56	1.2861E+21								
Fe 57	2.9717E+19								
Fe 58	3.9248E+18								

here are 32 Nuclides.

Totals:	7.3452E+22	8.7611E-10	1.319857E+04	1.4103E+03	2.8094E+03	7.5931E-08	3.5858E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 3.33 (d) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.37330E+05
He	2.55082E+06
C	1.59907E+06
N	1.63848E+04
O	4.56020E+22
F	2.54753E+00
Na	1.92729E+21
Mg	1.34555E+21
Al	4.71809E+21
Si	1.54511E+22
P	8.55576E+07
S	1.19924E-04
Cl	6.60204E+05
Ar	8.23582E+05
K	1.03715E+21
Ca	1.96889E+21
Sc	2.81529E+04
Ti	2.30708E+05
V	5.10614E-06
Cr	1.03757E-04
Mn	-1.14774E+05
Fe	1.40173E+21

Co 2.38923E+04

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.6918E-05	1.2167E-03
2	(0.1 -> 0.2 MeV)	5.2643E-03	3.3963E-02
3	(0.2 -> 0.4 MeV)	8.2790E-02	2.7597E-01
4	(0.4 -> 0.6 MeV)	3.4873E+02	6.9746E+02
5	(0.6 -> 0.8 MeV)	1.7787E-03	2.5410E-03
6	(0.8 -> 1.0 MeV)	2.3339E+00	2.5933E+00
7	(1.0 ->1.22 MeV)	1.0919E+00	9.8367E-01
8	(1.22 ->1.44 MeV)	6.1400E+02	4.6166E+02
9	(1.44 ->1.66 MeV)	2.2034E+01	1.4216E+01
10	(1.66 -> 2.0 MeV)	1.4330E+03	7.8307E+02
11	(2.0 -> 2.5 MeV)	7.1515E-02	3.1785E-02
12	(2.5 -> 3.0 MeV)	1.2335E+03	4.4855E+02
13	(3.0 -> 4.0 MeV)	6.8995E+00	1.9713E+00
14	(4.0 -> 5.0 MeV)	6.3726E-01	1.4161E-01
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	1.4161E-01	1.9713E+00	4.4855E+02
3.1785E-02	7.8307E+02	4.7587E+02	9.8367E-01	2.5933E+00	2.5410E-03
6.9746E+02	1.3798E-01	1.3798E-01	3.3963E-02	6.0834E-04	6.0834E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.01 (h)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
O 16	4.5493E+22							
O 17	1.8241E+19							
O 18	9.1204E+19							
Na 23	1.9273E+21							
Na 24	1.6628E+07	1.6008E-10	1.2458E-05	3.3894E+02	2.1367E+02	5.7749E-09	9.1704E-05	Na 24
Mg 24	1.0629E+21							
Mg 25	1.3456E+20							
Mg 26	1.4815E+20							
Al 27	4.7181E+21							
Si 28	1.4247E+22							
Si 29	7.2466E+20							
Si 30	4.7898E+20							
Si 31	1.4385E+05	1.0085E-12	1.3732E-08	3.6569E-03	1.0564E+01	2.8552E-10	1.6903E-06	Si 31
K 39	9.6722E+20							
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6278E-11	1.2934E-05	K 40
K 41	6.9802E+19							
K 42	1.9747E+06	8.4343E-12	5.4205E-07	3.5025E+00	3.0726E+01	8.3043E-10	1.3187E-05	K 42
Ca 40	1.9087E+21							
Ca 42	1.2739E+19							
Ca 43	2.6580E+18							
Ca 44	4.1071E+19							
Ca 46	7.8755E+16							
Ca 48	3.6818E+18							
Fe 54	8.2001E+19							
Fe 56	1.2861E+21							
Fe 57	2.9717E+19							
Fe 58	3.9248E+18							
16.0 (h)		1.6975E-10	1.319857E+04	3.4257E+02	2.5704E+02	6.9471E-09	1.1951E-04	

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.01 (h)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.6851E-05	1.2155E-03
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	3.3765E-02	1.1255E-01
4	(0.4 -> 0.6 MeV)	2.1281E-05	4.2562E-05
5	(0.6 -> 0.8 MeV)	7.2543E-04	1.0363E-03
6	(0.8 -> 1.0 MeV)	1.7166E-02	1.9073E-02
7	(1.0 ->1.22 MeV)	6.5878E-03	5.9349E-03
8	(1.22 ->1.44 MeV)	2.9244E+02	2.1988E+02
9	(1.44 ->1.66 MeV)	9.1791E+00	5.9220E+00
10	(1.66 -> 2.0 MeV)	2.5435E-02	1.3899E-02
11	(2.0 -> 2.5 MeV)	1.5484E-02	6.8819E-03

12 (2.5 -> 3.0 MeV)	5.8813E+02	2.1386E+02
13 (3.0 -> 4.0 MeV)	4.2968E-01	1.2277E-01
14 (4.0 -> 5.0 MeV)	6.7915E-03	1.5092E-03
15 (5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	1.5092E-03	1.2277E-01	2.1386E+02
6.8819E-03	1.3899E-02	2.2580E+02	5.9349E-03	1.9073E-02	1.0363E-03
4.2562E-05	5.6275E-02	5.6275E-02	0.0000E+00	6.0774E-04	6.0774E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.01 (h)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.37330E+05
He	2.55082E+06
C	1.59907E+06
N	1.63852E+04
O	4.56020E+22
F	2.91147E+00
Na	1.92729E+21
Mg	1.34555E+21
Al	4.71809E+21
Si	1.54511E+22
P	9.53293E+07
S	1.70431E-04
Cl	6.63953E+05
Ar	8.19830E+05
K	1.03715E+21
Ca	1.96889E+21
Sc	2.51076E+04
Ti	2.42816E+05
V	6.82373E-06
Cr	1.02040E-04
Mn	-1.07913E+05
Fe	1.40173E+21
Co	3.21362E+04
Totals:	7.34518E+22

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.526E-04	1.081E+03	2.809E+03	7.593E-02	3.586E-04	8.761E-10	1.319857E+04
16.0 (h)	8.564E-05	9.886E+01	2.570E+02	6.947E-03	1.195E-04	1.698E-10	1.319857E+04

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

For a volume of 1.0000E+00(cm3) of Soil :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.809E+03	3.526E-04	3.586E-04	8.761E-10
16.0 (h)	2.570E+02	8.564E-05	1.195E-04	1.698E-10

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.081E+06	3.370E-10	2.920E-05	1.410E+03
16.0 (h)	9.886E+04	6.529E-11	2.672E-06	3.426E+02

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.081E+03	3.526E-04	3.370E-10	1.765E+03
16.0 (h)	9.886E+01	8.564E-05	6.529E-11	2.783E+02

				Elapsed Time.	
Step 1 :	Activation of	2.88000E+04(s), i.e.	8.00 (h)	8.00 (h)	Intervals : 2
	Cold Pause of	5.76400E+04(s), i.e.	16.01 (h)	1.00 (d)	
Step 2 :	Activation of	2.88000E+04(s), i.e.	8.00 (h)	1.33 (d)	Intervals : 2
	Cold Pause of	5.76400E+04(s), i.e.	16.01 (h)	2.00 (d)	
Step 3 :	Activation of	2.88000E+04(s), i.e.	8.00 (h)	2.33 (d)	Intervals : 2
	Cold Pause of	5.76400E+04(s), i.e.	16.01 (h)	3.00 (d)	

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Step    4 : Activation of  2.88000E+04(s), i.e.      8.00 (h)      3.33 (d)        Intervals :  2
            Cold Pause of  5.76400E+04(s), i.e.     16.01 (h)      4.00 (d)

Step    5 : Activation of  2.88000E+04(s), i.e.      8.00 (h)      4.34 (d)        Intervals :  2

Cooling Times (s)  :

  2.3040E+05

     2.7 (d)

AJBRF Soil Region, probid 02/17/03 12:00:00

Step :   1

Elapsed Time   :      8.00 (h)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   7.3452E+22   7.6279E-10 1.319857E+04   1.1796E+03   2.6448E+03   7.1481E-08   2.8826E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      1.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   7.3452E+22   1.1614E-10 1.319857E+04   2.3276E+02   1.8047E+02   4.8775E-09   8.6654E-05

Step :   2

Elapsed Time   :      1.33 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   7.3452E+22   8.4195E-10 1.319857E+04   1.3402E+03   2.7608E+03   7.4617E-08   3.3771E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   7.3452E+22   1.5356E-10 1.319857E+04   3.0918E+02   2.3419E+02   6.3293E-09   1.0970E-04

Step :   3

Elapsed Time   :      2.33 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   7.3452E+22   8.6770E-10 1.319857E+04   1.3929E+03   2.7976E+03   7.5611E-08   3.5350E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   7.3452E+22   1.6576E-10 1.319857E+04   3.3431E+02   2.5146E+02   6.7962E-09   1.1712E-04

Step :   4

Elapsed Time   :      3.33 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   7.3452E+22   8.7611E-10 1.319857E+04   1.4103E+03   2.8094E+03   7.5931E-08   3.5858E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   7.3452E+22   1.6975E-10 1.319857E+04   3.4257E+02   2.5704E+02   6.9471E-09   1.1951E-04

Step :   5
     AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time   :      4.34 (d)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 O 16     4.5493E+22
 O 17     1.8241E+19
 O 18     9.1204E+19
Na 23     1.9273E+21
Na 24     3.5153E+07   3.3843E-10   2.6337E-05   7.1654E+02   4.5172E+02   1.2209E-08   1.9387E-04   1.498E+01 (h)   Na 24
Na 24m1   2.1629E+01   5.7510E-11   1.6762E-12   1.3414E+02   7.4207E+02   2.0056E-08   1.3347E-10   2.020E-02 (s)   Na 24m1
Mg 24     1.0629E+21
Mg 25     1.3456E+20
Mg 26     1.4815E+20
Mg 27     3.0940E+03   9.6408E-13   7.8958E-10   1.2946E+00   3.7778E+00   1.0210E-10   7.1821E-08   9.461E+00 (m)   Mg 27
Al 27     4.7181E+21
Al 28     1.5628E+05   3.8982E-10   7.5620E-08   5.5243E+02   8.0562E+02   2.1774E-08   3.9491E-06   2.241E+00 (m)   Al 28
Si 28     1.4247E+22
Si 29     7.2466E+20
Si 30     4.7898E+20
Si 31     9.9155E+06   6.9516E-11   9.4657E-07   2.5207E-01   7.2820E+02   1.9681E-08   1.1651E-04   2.622E+00 (h)   Si 31
 K 39     9.6722E+20
 K 40     1.2135E+17   2.2649E-13   1.3199E+04   1.2590E-01   2.0823E+00   5.6278E-11   1.2934E-05   1.280E+03(My)   K 40
 K 41     6.9802E+19
```

K 42	4.8583E+06	2.0751E-11	1.3336E-06	8.6174E+00	7.5596E+01	2.0431E-09	3.2445E-05	1.237E+01 (h)	K 42
Ca 40	1.9087E+21								
Ca 42	1.2739E+19								
Ca 43	2.6580E+18								
Ca 44	4.1071E+19								
Ca 46	7.8755E+16								
Ca 48	3.6818E+18								
Ca 49	1.5936E+03	1.3655E-12	1.0305E-09	2.5721E+00	2.1115E+00	5.7069E-11	2.7458E-07	8.719E+00 (m)	Ca 49
Sc 49	1.0417E+04	2.7594E-13	1.3660E-09	8.0928E-04	2.1041E+00	5.6869E-11	1.7247E-07	5.719E+01 (m)	Sc 49
Fe 54	8.2001E+19								
Fe 56	1.2861E+21								
Fe 57	2.9717E+19								
Fe 58	3.9248E+18								

here are 32 Nuclides.

Totals: 7.3452E+22 8.7886E-10 1.319857E+04 1.4160E+03 2.8133E+03 7.6035E-08 3.6023E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 4.34 (d) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	6.71663E+05
He	3.18852E+06
C	1.99884E+06
N	2.04814E+04
O	4.56020E+22
F	3.27540E+00
Na	1.92729E+21
Mg	1.34555E+21
Al	4.71809E+21
Si	1.54511E+22
P	1.09426E+08
S	1.97244E-04
Cl	8.28724E+05
Ar	1.02601E+06
K	1.03715E+21
Ca	1.96889E+21
Sc	3.94291E+04
Ti	2.91501E+05
V	7.96580E-06
Cr	1.28113E-04
Mn	-1.37040E+05
Fe	1.40173E+21
Co	3.75122E+04

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.6919E-05	1.2167E-03
2	(0.1 -> 0.2 MeV)	5.2643E-03	3.3963E-02
3	(0.2 -> 0.4 MeV)	8.3073E-02	2.7691E-01
4	(0.4 -> 0.6 MeV)	3.4873E+02	6.9746E+02
5	(0.6 -> 0.8 MeV)	1.7848E-03	2.5497E-03
6	(0.8 -> 1.0 MeV)	2.3341E+00	2.5934E+00
7	(1.0 ->1.22 MeV)	1.0919E+00	9.8372E-01
8	(1.22 ->1.44 MeV)	6.1890E+02	4.6534E+02
9	(1.44 ->1.66 MeV)	2.2109E+01	1.4264E+01
10	(1.66 -> 2.0 MeV)	1.4330E+03	7.8307E+02
11	(2.0 -> 2.5 MeV)	7.1645E-02	3.1842E-02
12	(2.5 -> 3.0 MeV)	1.2433E+03	4.5213E+02
13	(3.0 -> 4.0 MeV)	6.9067E+00	1.9733E+00
14	(4.0 -> 5.0 MeV)	6.3738E-01	1.4164E-01
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	1.4164E-01	1.9733E+00	4.5213E+02
3.1842E-02	7.8307E+02	4.7960E+02	9.8372E-01	2.5934E+00	2.5497E-03
6.9746E+02	1.3845E-01	1.3845E-01	3.3963E-02	6.0835E-04	6.0835E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 2.67 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3

O 16	4.5493E+22							
O 17	1.8241E+19							
O 18	9.1204E+19							
Na 23	1.9273E+21							
Na 24	1.8204E+06	1.7526E-11	1.3639E-06	3.7107E+01	2.3393E+01	6.3223E-10	1.0040E-05	Na 24
Mg 24	1.0629E+21							
Mg 25	1.3456E+20							
Mg 26	1.4815E+20							
Al 27	4.7181E+21							
Si 28	1.4247E+22							
Si 29	7.2466E+20							
Si 30	4.7898E+20							
K 39	9.6722E+20							
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6278E-11	1.2934E-05	K 40
K 41	6.9802E+19							
K 42	1.3475E+05	5.7555E-13	3.6989E-08	2.3901E-01	2.0967E+00	5.6668E-11	8.9988E-07	K 42
Ca 40	1.9087E+21							
Ca 42	1.2739E+19							
Ca 43	2.6580E+18							
Ca 44	4.1071E+19							
Ca 46	7.8755E+16							
Ca 48	3.6818E+18							
Fe 54	8.2001E+19							
Fe 56	1.2861E+21							
Fe 57	2.9717E+19							
Fe 58	3.9248E+18							
2.7 (d)		1.8328E-11	1.319857E+04	3.7471E+01	2.7572E+01	7.4518E-10	2.3873E-05	

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 2.67 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.6798E-05	1.2145E-03
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	2.3041E-03	7.6804E-03
4	(0.4 -> 0.6 MeV)	2.1281E-05	4.2562E-05
5	(0.6 -> 0.8 MeV)	4.9503E-05	7.0719E-05
6	(0.8 -> 1.0 MeV)	1.2549E-03	1.3944E-03
7	(1.0 ->1.22 MeV)	4.4955E-04	4.0500E-04
8	(1.22 ->1.44 MeV)	3.2016E+01	2.4072E+01
9	(1.44 ->1.66 MeV)	9.2965E-01	5.9977E-01
10	(1.66 -> 2.0 MeV)	1.7357E-03	9.4845E-04
11	(2.0 -> 2.5 MeV)	1.0566E-03	4.6962E-04
12	(2.5 -> 3.0 MeV)	6.4388E+01	2.3414E+01
13	(3.0 -> 4.0 MeV)	4.7041E-02	1.3440E-02
14	(4.0 -> 5.0 MeV)	7.4353E-04	1.6523E-04
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	1.6523E-04	1.3440E-02	2.3414E+01
4.6962E-04	9.4845E-04	2.4672E+01	4.0500E-04	1.3944E-03	7.0719E-05
4.2562E-05	3.8402E-03	3.8402E-03	0.0000E+00	6.0725E-04	6.0725E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 2.67 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	6.71663E+05
He	3.18852E+06
C	1.99884E+06
N	2.04831E+04
O	4.56020E+22
F	3.63934E+00
Na	1.92729E+21
Mg	1.34555E+21
Al	4.71809E+21
Si	1.54511E+22
P	1.19341E+08
S	4.49604E-04
Cl	8.46924E+05
Ar	1.00779E+06
K	1.03715E+21
Ca	1.96889E+21
Sc	6.51742E+04
Ti	3.04173E+05
V	1.62351E-05
Cr	1.19844E-04
Mn	-1.02797E+05
Fe	1.40173E+21

Co 7.77584E+04
Totals: 7.34518E+22

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.540E-04	1.082E+03	2.813E+03	7.603E-02	3.602E-04	8.789E-10	1.319857E+04
2.7 (d)	9.368E-06	1.060E+01	2.757E+01	7.452E-04	2.387E-05	1.833E-11	1.319857E+04

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

For a volume of 1.0000E+00(cm3) of Soil :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.813E+03	3.540E-04	3.602E-04	8.789E-10
2.7 (d)	2.757E+01	9.368E-06	2.387E-05	1.833E-11

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.082E+06	3.380E-10	2.924E-05	1.416E+03
2.7 (d)	1.060E+04	7.049E-12	2.866E-07	3.747E+01

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.082E+03	3.540E-04	3.380E-10	1.770E+03
2.7 (d)	1.060E+01	9.368E-06	7.049E-12	3.053E+01

The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000

we hope that all was O.K.!

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ANITA-2000 INPUT FILE

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soilinv
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    8    6NYAJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.
 2.60       1.0000-12  1.0      Soil      .
O    46.6000
Si   27.7200
Al    8.1300
Fe    5.0000
Mg    2.0900
Ca    5.0400
Na    2.8300
K     2.5900
         1          4
9.32074+070.0
1.00000+001.00000+031.00000+061.00000+09
0
        -1
```

ANITA-2000 OUTPUT FILE

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*****************************************************
* Authors:                                          *
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* Gilio Cambi         - Bologna University Italy    *
* Manuela Frisoni     - ATHENA S.a.S. Bologna Italy *
* Gian Carlo Panini   - ENEA Bologna Italy          *
* (ANITA-2000 is based on the ANITA code by C. Ponti*
*  and S.Stramaccia    - CEC JRC Ispra,1989)        *
*****************************************************

The Library    *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000
contains 1840  Nuclides.

Gamma Data were supplied for 1390 Nuclides.
     AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

The Library Activation library
contains12392  Reactions.
```

at 175 Groups.

Set of Fluxes 6 : AJBRF Soil (Side) Flux

Fluxes

0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
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0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	1.18160E+05	1.18160E+05
1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05
1.18160E+05					

Total Flux at 175 Groups : 2.64133E+07 !

DENSITY 2.600(g/cm3)

ELEM.	Weight %	AT.WEIGHT	ISO	Rel.Abb.	N/cm3
O	46.6000	16.0000			4.56020E+22
			O 16	0.99760	4.54925E+22
			O 17	0.00040	1.82408E+19
			O 18	0.00200	9.12039E+19
Si	27.7200	28.0900			1.54511E+22
			Si 28	0.92210	1.42475E+22
			Si 29	0.04690	7.24656E+20
			Si 30	0.03100	4.78984E+20
Al	8.1300	26.9800			4.71809E+21
			Al 27	1.00000	4.71809E+21
Fe	5.0000	55.8500			1.40173E+21
			Fe 54	0.05850	8.20012E+19
			Fe 56	0.91750	1.28609E+21
			Fe 57	0.02120	2.97167E+19
			Fe 58	0.00280	3.92485E+18
Mg	2.0900	24.3200			1.34555E+21
			Mg 24	0.78990	1.06285E+21
			Mg 25	0.10000	1.34555E+20
			Mg 26	0.11010	1.48145E+20
Ca	5.0400	40.0800			1.96889E+21
			Ca 40	0.96941	1.90866E+21
			Ca 42	0.00647	1.27387E+19
			Ca 43	0.00135	2.65800E+18
			Ca 44	0.02086	4.10710E+19
			Ca 46	0.00004	7.87554E+16
			Ca 48	0.00187	3.68182E+18
Na	2.8300	22.9910			1.92729E+21
			Na 23	1.00000	1.92729E+21
K	2.5900	39.1000			1.03715E+21
			K 39	0.93258	9.67224E+20
			K 40	0.00012	1.21346E+17
			K 41	0.06730	6.98021E+19
	100.0000				

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Isotope	N/cm3
O 16	4.54925E+22
O 17	1.82408E+19
O 18	9.12039E+19
Na 23	1.92729E+21
Mg 24	1.06285E+21
Mg 25	1.34555E+20
Mg 26	1.48145E+20
Al 27	4.71809E+21
Si 28	1.42475E+22
Si 29	7.24656E+20

Si 30	4.78984E+20
K 39	9.67224E+20
K 40	1.21346E+17
K 41	6.98021E+19
Ca 40	1.90866E+21
Ca 42	1.27387E+19
Ca 43	2.65800E+18
Ca 44	4.10710E+19
Ca 46	7.87554E+16
Ca 48	3.68182E+18
Fe 54	8.20012E+19
Fe 56	1.28609E+21
Fe 57	2.97167E+19
Fe 58	3.92485E+18

In Total : 7.34518E+22 Min. acceptable Conc. : 7.34518E+10 N/cm3.

Elapsed Time.

Step 1 : Activation of 9.32074E+07(s), i.e. 2.95 (y) 2.95 (y) Intervals : 2

Cooling Times (s) :

1.0000E+00 1.0000E+03 1.0000E+06 1.0000E+09

1.0 (s) 16.7 (m) 11.6 (d) 31.7 (y)

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 2.95 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
O 16	4.5493E+22								
O 17	1.8241E+19								
O 18	9.1204E+19								
Na 23	1.9273E+21								
Na 24	7.6518E+07	7.3666E-10	5.7328E-05	1.5597E+03	9.8325E+02	2.6574E-08	4.2200E-04	1.498E+01 (h)	Na 24
Na 24m1	2.1629E+01	5.7510E-11	1.6762E-12	1.3414E+02	7.4207E+02	2.0056E-08	1.3347E-10	2.020E-02 (s)	Na 24m1
Mg 24	1.0629E+21								
Mg 25	1.3456E+20								
Mg 26	1.4815E+20								
Mg 27	3.0940E+03	9.6408E-13	7.8958E-10	1.2946E+00	3.7778E+00	1.0210E-10	7.1821E-08	9.461E+00 (m)	Mg 27
Al 27	4.7181E+21								
Al 28	1.5628E+05	3.8982E-10	7.5620E-08	5.5243E+02	8.0562E+02	2.1774E-08	3.9491E-06	2.241E+00 (m)	Al 28
Si 28	1.4247E+22								
Si 29	7.2466E+20								
Si 30	4.7898E+20								
Si 31	1.1256E+07	7.8913E-11	1.0745E-06	2.8614E-01	8.2663E+02	2.2341E-08	1.3226E-04	2.622E+00 (h)	Si 31
P 31	7.7037E+10								
Ar 37	1.1207E+07	1.1013E-15	4.8094E-09	3.1931E-04	2.5663E+00	6.9359E-11	2.1565E-07	3.503E+01 (d)	Ar 37
K 39	9.6722E+20								
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6279E-11	1.2934E-05	1.280E+03(My)	K 40
K 41	6.9802E+19								
K 42	9.9588E+06	4.2536E-11	2.7337E-06	1.7664E+01	1.5496E+02	4.1881E-09	6.6506E-05	1.237E+01 (h)	K 42
Ca 40	1.9087E+21								
Ca 42	1.2739E+19								
Ca 43	2.6580E+18								
Ca 44	4.1071E+19								
Ca 45	4.4443E+08	2.7109E-13	5.4976E-06	0.0000E+00	2.1915E+01	5.9230E-10	1.6602E-05	1.627E+02 (d)	Ca 45
Ca 46	7.8755E+16								
Ca 48	3.6818E+18								
Ca 49	1.5936E+03	1.3655E-12	1.0305E-09	2.5721E+00	2.1115E+00	5.7069E-11	2.7458E-07	8.719E+00 (m)	Ca 49
Sc 49	1.0453E+04	2.7691E-13	1.3708E-09	8.1213E-04	2.1115E+00	5.7069E-11	1.7308E-07	5.719E+01 (m)	Sc 49
Fe 54	8.2001E+19								
Fe 55	8.4531E+09	6.4064E-14	7.9771E-06	4.3607E-02	6.7887E+01	1.8348E-09	2.2405E-05	2.735E+00 (y)	Fe 55
Fe 56	1.2861E+21								
Fe 57	2.9717E+19								
Fe 58	3.9248E+18								
Fe 59	3.9395E+07	1.4873E-12	8.2491E-06	3.2488E+00	7.1028E+00	1.9197E-10	1.2775E-05	4.450E+01 (d)	Fe 59

here are 37 Nuclides.

Totals: 7.3452E+22 1.3101E-09 1.319858E+04 2.2715E+03 3.6221E+03 9.7894E-08 6.9016E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 2.95 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.34656E+08
He	2.06006E+09
C	1.29357E+09
N	2.30224E+05
O	4.56020E+22
F	8.84736E+05
Na	1.92729E+21
Mg	1.34555E+21
Al	4.71809E+21
Si	1.54511E+22
P	7.70372E+10
S	1.65202E+01
Cl	7.54839E+08
Ar	4.44506E+08
K	1.03715E+21
Ca	1.96889E+21
Sc	1.61907E+09
Ti	1.99769E+08
V	8.42497E-02
Cr	3.24126E-03
Mn	3.55482E+09
Fe	1.40173E+21
Co	6.22642E+08

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1352E-01	2.0640E+00
2	(0.1 -> 0.2 MeV)	5.8128E-02	3.7502E-01
3	(0.2 -> 0.4 MeV)	1.7720E-01	5.9066E-01
4	(0.4 -> 0.6 MeV)	3.4873E+02	6.9746E+02
5	(0.6 -> 0.8 MeV)	3.6586E-03	5.2265E-03
6	(0.8 -> 1.0 MeV)	2.3782E+00	2.6425E+00
7	(1.0 ->1.22 MeV)	5.5360E+00	4.9874E+00
8	(1.22 ->1.44 MeV)	1.3504E+03	1.0153E+03
9	(1.44 ->1.66 MeV)	4.4983E+01	2.9021E+01
10	(1.66 -> 2.0 MeV)	1.4331E+03	7.8311E+02
11	(2.0 -> 2.5 MeV)	1.1164E-01	4.9618E-02
12	(2.5 -> 3.0 MeV)	2.7064E+03	9.8414E+02
13	(3.0 -> 4.0 MeV)	7.9756E+00	2.2787E+00
14	(4.0 -> 5.0 MeV)	6.5427E-01	1.4539E-01
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	1.4539E-01	2.2787E+00	9.8414E+02
4.9618E-02	7.8311E+02	1.0444E+03	4.9874E+00	2.6425E+00	5.2265E-03
6.9746E+02	2.9533E-01	2.9533E-01	3.7502E-01	1.0320E+00	1.0320E+00

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 1.00 (s)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
O 16	4.5493E+22							
O 17	1.8241E+19							
O 18	9.1204E+19							
Na 23	1.9273E+21							
Na 24	7.6517E+07	7.3665E-10	5.7327E-05	1.5597E+03	9.8324E+02	2.6574E-08	4.2199E-04	Na 24
Mg 24	1.0629E+21							
Mg 25	1.3456E+20							
Mg 26	1.4815E+20							
Mg 27	3.0902E+03	9.6290E-13	7.8862E-10	1.2930E+00	3.7732E+00	1.0198E-10	7.1733E-08	Mg 27
Al 27	4.7181E+21							
Al 28	1.5548E+05	3.8782E-10	7.5231E-08	5.4958E+02	8.0148E+02	2.1662E-08	3.9288E-06	Al 28
Si 28	1.4247E+22							
Si 29	7.2466E+20							
Si 30	4.7898E+20							
Si 31	1.1255E+07	7.8907E-11	1.0744E-06	2.8612E-01	8.2657E+02	2.2340E-08	1.3225E-04	Si 31
P 31	7.7037E+10							
Ar 37	1.1207E+07	1.1013E-15	4.8094E-09	3.1931E-04	2.5663E+00	6.9359E-11	2.1565E-07	Ar 37
K 39	9.6722E+20							
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6279E-11	1.2934E-05	K 40

K 41	6.9802E+19							
K 42	9.9586E+06	4.2536E-11	2.7337E-06	1.7664E+01	1.5496E+02	4.1880E-09	6.6505E-05	K 42
Ca 40	1.9087E+21							
Ca 42	1.2739E+19							
Ca 43	2.6580E+18							
Ca 44	4.1071E+19							
Ca 45	4.4443E+08	2.7109E-13	5.4976E-06	0.0000E+00	2.1915E+01	5.9230E-10	1.6602E-05	Ca 45
Ca 46	7.8755E+16							
Ca 48	3.6818E+18							
Ca 49	1.5915E+03	1.3637E-12	1.0292E-09	2.5687E+00	2.1088E+00	5.6993E-11	2.7422E-07	Ca 49
Sc 49	1.0453E+04	2.7691E-13	1.3708E-09	8.1213E-04	2.1115E+00	5.7069E-11	1.7308E-07	Sc 49
Fe 54	8.2001E+19							
Fe 55	8.4531E+09	6.4064E-14	7.9771E-06	4.3607E-02	6.7887E+01	1.8348E-09	2.2405E-05	Fe 55
Fe 56	1.2861E+21							
Fe 57	2.9717E+19							
Fe 58	3.9248E+18							
Fe 59	3.9395E+07	1.4873E-12	8.2491E-06	3.2488E+00	7.1028E+00	1.9197E-10	1.2775E-05	Fe 59
1.0 (s)		1.2506E-09	1.319858E+04	2.1345E+03	2.8758E+03	7.7724E-08	6.9013E-04	

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 1.00 (s)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1352E-01	2.0640E+00
2	(0.1 -> 0.2 MeV)	5.8121E-02	3.7498E-01
3	(0.2 -> 0.4 MeV)	1.7720E-01	5.9065E-01
4	(0.4 -> 0.6 MeV)	2.1281E-05	4.2562E-05
5	(0.6 -> 0.8 MeV)	3.6585E-03	5.2264E-03
6	(0.8 -> 1.0 MeV)	2.3754E+00	2.6394E+00
7	(1.0 ->1.22 MeV)	5.5346E+00	4.9862E+00
8	(1.22 ->1.44 MeV)	1.3504E+03	1.0153E+03
9	(1.44 ->1.66 MeV)	4.4982E+01	2.9021E+01
10	(1.66 -> 2.0 MeV)	1.4257E+03	7.7908E+02
11	(2.0 -> 2.5 MeV)	1.1159E-01	4.9598E-02
12	(2.5 -> 3.0 MeV)	2.7064E+03	9.8413E+02
13	(3.0 -> 4.0 MeV)	7.9676E+00	2.2765E+00
14	(4.0 -> 5.0 MeV)	6.5345E-01	1.4521E-01
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	1.4521E-01	2.2765E+00	9.8413E+02
4.9598E-02	7.7908E+02	1.0444E+03	4.9862E+00	2.6394E+00	5.2264E-03
4.2562E-05	2.9533E-01	2.9533E-01	3.7498E-01	1.0320E+00	1.0320E+00

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.67 (m)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
O 16	4.5493E+22							
O 17	1.8241E+19							
O 18	9.1204E+19							
Na 23	1.9273E+21							
Na 24	7.5541E+07	7.2726E-10	5.6596E-05	1.5398E+03	9.7070E+02	2.6235E-08	4.1661E-04	Na 24
Mg 24	1.0629E+21							
Mg 25	1.3456E+20							
Mg 26	1.4815E+20							
Mg 27	9.1253E+02	2.8434E-13	2.3288E-10	3.8183E-01	1.1142E+00	3.0113E-11	2.1182E-08	Mg 27
Al 27	4.7181E+21							
Al 28	9.0181E+02	2.2495E-12	4.3636E-10	3.1878E+00	4.6488E+00	1.2564E-10	2.2788E-08	Al 28
Si 28	1.4247E+22							
Si 29	7.2466E+20							
Si 30	4.7898E+20							
Si 31	1.0459E+07	7.3325E-11	9.9844E-07	2.6588E-01	7.6810E+02	2.0760E-08	1.2290E-04	Si 31
P 31	7.7038E+10							
Ar 37	1.1204E+07	1.1011E-15	4.8083E-09	3.1923E-04	2.5657E+00	6.9343E-11	2.1561E-07	Ar 37
K 39	9.6722E+20							
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6279E-11	1.2934E-05	K 40
K 41	6.9802E+19							
K 42	9.8050E+06	4.1880E-11	2.6915E-06	1.7392E+01	1.5257E+02	4.1234E-09	6.5479E-05	K 42
Ca 40	1.9087E+21							
Ca 42	1.2739E+19							
Ca 43	2.6580E+18							
Ca 44	4.1071E+19							
Ca 45	4.4441E+08	2.7108E-13	5.4974E-06	0.0000E+00	2.1914E+01	5.9227E-10	1.6601E-05	Ca 45
Ca 46	7.8755E+16							
Ca 48	3.6818E+18							
Ca 49	4.2359E+02	3.6295E-13	2.7392E-10	6.8368E-01	5.6126E-01	1.5169E-11	7.2985E-08	Ca 49
Sc 49	9.5778E+03	2.5372E-13	1.2560E-09	7.4412E-04	1.9347E+00	5.2290E-11	1.5858E-07	Sc 49
Fe 54	8.2001E+19							
Fe 55	8.4530E+09	6.4063E-14	7.9770E-06	4.3606E-02	6.7886E+01	1.8348E-09	2.2405E-05	Fe 55
Fe 56	1.2861E+21							
Fe 57	2.9717E+19							
Fe 58	3.9248E+18							

Fe 59	3.9387E+07	1.4871E-12	8.2477E-06	3.2482E+00	7.1016E+00	1.9193E-10	1.2773E-05	Fe 59
16.7 (m)		8.4766E-10	1.319858E+04	1.5651E+03	2.0012E+03	5.4086E-08	6.7019E-04	

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.67 (m)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1352E-01	2.0639E+00
2	(0.1 -> 0.2 MeV)	5.4403E-02	3.5099E-01
3	(0.2 -> 0.4 MeV)	1.7457E-01	5.8189E-01
4	(0.4 -> 0.6 MeV)	2.1281E-05	4.2562E-05
5	(0.6 -> 0.8 MeV)	3.6021E-03	5.1458E-03
6	(0.8 -> 1.0 MeV)	7.6042E-01	8.4492E-01
7	(1.0 ->1.22 MeV)	4.7761E+00	4.3028E+00
8	(1.22 ->1.44 MeV)	1.3332E+03	1.0024E+03
9	(1.44 ->1.66 MeV)	4.4293E+01	2.8576E+01
10	(1.66 -> 2.0 MeV)	8.3969E+00	4.5885E+00
11	(2.0 -> 2.5 MeV)	8.5803E-02	3.8135E-02
12	(2.5 -> 3.0 MeV)	2.6718E+03	9.7158E+02
13	(3.0 -> 4.0 MeV)	3.5464E+00	1.0133E+00
14	(4.0 -> 5.0 MeV)	1.9645E-01	4.3657E-02
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	4.3657E-02	1.0133E+00	9.7158E+02
3.8135E-02	4.5885E+00	1.0310E+03	4.3028E+00	8.4492E-01	5.1458E-03
4.2562E-05	2.9095E-01	2.9095E-01	3.5099E-01	1.0320E+00	1.0320E+00

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 11.57 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
O 16	4.5493E+22							
O 17	1.8241E+19							
O 18	9.1204E+19							
Na 23	1.9273E+21							
Mg 24	1.0629E+21							
Mg 25	1.3456E+20							
Mg 26	1.4815E+20							
Al 27	4.7181E+21							
Si 28	1.4247E+22							
Si 29	7.2466E+20							
Si 30	4.7898E+20							
P 31	7.7048E+10							
Ar 37	8.9129E+06	8.7593E-16	3.8250E-09	2.5395E-04	2.0410E+00	5.5163E-11	1.7152E-07	Ar 37
K 39	9.6722E+20							
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6279E-11	1.2934E-05	K 40
K 41	6.9802E+19							
Ca 40	1.9087E+21							
Ca 42	1.2739E+19							
Ca 43	2.6580E+18							
Ca 44	4.1071E+19							
Ca 45	4.2305E+08	2.5805E-13	5.2331E-06	0.0000E+00	2.0861E+01	5.6380E-10	1.5803E-05	Ca 45
Ca 46	7.8755E+16							
Ca 48	3.6818E+18							
Fe 54	8.2001E+19							
Fe 55	8.3855E+09	6.3552E-14	7.9133E-06	4.3258E-02	6.7344E+01	1.8201E-09	2.2226E-05	Fe 55
Fe 56	1.2861E+21							
Fe 57	2.9717E+19							
Fe 58	3.9248E+18							
Fe 59	3.2895E+07	1.2419E-12	6.8882E-06	2.7128E+00	5.9310E+00	1.6030E-10	1.0667E-05	Fe 59
11.6 (d)		1.7909E-12	1.319858E+04	2.8822E+00	9.8259E+01	2.6556E-09	6.1801E-05	

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 11.57 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1249E-01	2.0453E+00
2	(0.1 -> 0.2 MeV)	4.4142E-02	2.8479E-01
3	(0.2 -> 0.4 MeV)	5.7727E-03	1.9242E-02
4	(0.4 -> 0.6 MeV)	2.1281E-05	4.2562E-05
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	3.6966E+00	3.3303E+00
8	(1.22 ->1.44 MeV)	3.3017E+00	2.4825E+00
9	(1.44 ->1.66 MeV)	3.3040E-01	2.1316E-01
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00

12 (2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13 (3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14 (4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15 (5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	2.6956E+00	3.3303E+00	0.0000E+00	0.0000E+00
4.2562E-05	9.6212E-03	9.6212E-03	2.8479E-01	1.0226E+00	1.0226E+00

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
O 16	4.5493E+22							
O 17	1.8241E+19							
O 18	9.1204E+19							
Na 23	1.9273E+21							
Mg 24	1.0629E+21							
Mg 25	1.3456E+20							
Mg 26	1.4815E+20							
Al 27	4.7181E+21							
Si 28	1.4247E+22							
Si 29	7.2466E+20							
Si 30	4.7898E+20							
P 31	7.7048E+10							
K 39	9.6722E+20							
K 40	1.2135E+17	2.2649E-13	1.3199E+04	1.2590E-01	2.0823E+00	5.6279E-11	1.2934E-05	K 40
K 41	6.9802E+19							
Ca 40	1.9087E+21							
Ca 42	1.2739E+19							
Ca 43	2.6580E+18							
Ca 44	4.1071E+19							
Ca 46	7.8755E+16							
Ca 48	3.6818E+18							
Fe 54	8.2001E+19							
Fe 56	1.2861E+21							
Fe 57	2.9717E+19							
Fe 58	3.9248E+18							
31.7 (y)		2.2649E-13	1.319858E+04	1.2590E-01	2.0823E+00	5.6279E-11	1.2934E-05	

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.6791E-05	1.2144E-03
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	2.1281E-05	4.2562E-05
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	3.2548E-01	2.0998E-01
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	2.0998E-01	0.0000E+00	0.0000E+00	0.0000E+00
4.2562E-05	0.0000E+00	0.0000E+00	0.0000E+00	6.0719E-04	6.0719E-04

AJBRF Soil Region, probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.34656E+08
He	2.06006E+09
C	1.28862E+09
N	5.17898E+06

O	4.56020E+22
F	8.84737E+05
Na	1.92729E+21
Mg	1.34555E+21
Al	4.71809E+21
Si	1.54511E+22
P	7.70484E+10
S	7.25459E+02
Cl	7.66008E+08
Ar	4.01016E+08
K	1.03715E+21
Ca	1.96889E+21
Sc	2.06348E+09
Ti	1.99813E+08
V	8.74910E-02
Cr	0.00000E+00
Mn	1.20052E+10
Fe	1.40173E+21
Co	6.62037E+08
Totals:	7.34518E+22

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	5.679E-04	1.393E+03	3.622E+03	9.789E-02	6.902E-04	1.310E-09	1.319858E+04
1.0 (s)	5.336E-04	1.106E+03	2.876E+03	7.772E-02	6.901E-04	1.251E-09	1.319858E+04
16.7 (m)	3.913E-04	7.697E+02	2.001E+03	5.409E-02	6.702E-04	8.477E-10	1.319858E+04
11.6 (d)	7.205E-07	3.779E+01	9.826E+01	2.656E-03	6.180E-05	1.791E-12	1.319858E+04
31.7 (y)	3.147E-08	8.009E-01	2.082E+00	5.628E-05	1.293E-05	2.265E-13	1.319858E+04

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

For a volume of 1.0000E+00(cm3) of Soil :

Time	Becquerel	Sv/h	ALI	Watt
zero	3.622E+03	5.679E-04	6.902E-04	1.310E-09
1.0 (s)	2.876E+03	5.336E-04	6.901E-04	1.251E-09
16.7 (m)	2.001E+03	3.913E-04	6.702E-04	8.477E-10
11.6 (d)	9.826E+01	7.205E-07	6.180E-05	1.791E-12
31.7 (y)	2.082E+00	3.147E-08	1.293E-05	2.265E-13

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.393E+06	5.039E-10	3.765E-05	2.271E+03
1.0 (s)	1.106E+06	4.810E-10	2.989E-05	2.134E+03
16.7 (m)	7.697E+05	3.260E-10	2.080E-05	1.565E+03
11.6 (d)	3.779E+04	6.888E-13	1.021E-06	2.882E+00
31.7 (y)	8.009E+02	8.711E-14	2.165E-08	1.259E-01

AJBRF Soil Region, probid 02/17/03 12:00:00 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.393E+03	5.679E-04	5.039E-10	2.464E+03
1.0 (s)	1.106E+03	5.336E-04	4.810E-10	2.324E+03
16.7 (m)	7.697E+02	3.913E-04	3.260E-10	1.282E+03
11.6 (d)	3.779E+01	7.205E-07	6.888E-13	1.117E+00
31.7 (y)	8.009E-01	3.147E-08	8.711E-14	2.670E-01

The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000

we hope that all was O.K.!

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ANITA-2000 INPUT FILE

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concinv
concclr
   31    6NYAJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital
 2.35      1.0000-12  1.0      NBS Concrete Slab
Na  0.01772
Al 21.10000
S   2.12000
K   3.75000
Ca 80.18000
Fe  9.64000
Sc  0.00004
Ti  0.01046
V   0.00032
Cr  0.00027
Mn  0.00125
Co  0.00006
Ni  0.00018
Cu  0.00013
Zn  0.00021
Ga  0.00005
As  0.00006
Br  0.00002
Rb  0.00018
Sr  0.00151
Y   0.00009
Zr  0.00037
Nb  0.00003
Sb  0.00001
Ba  0.00202
Sm  0.00002
Eu  0.00000
Ta  0.00000
W   0.00001
Pb  0.00007
U   0.00002
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ANITA-2000 OUTPUT FILE

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*****************************************************
* Authors:                                          *
* Dan Gabriel Cepraga - ENEA Bologna Italy          *
* Gilio Cambi         - Bologna University Italy    *
* Manuela Frisoni     - ATHENA S.a.S. Bologna Italy *
* Gian Carlo Panini   - ENEA Bologna Italy          *
* (ANITA-2000 is based on the ANITA code by C. Ponti*
*  and S.Stramaccia    - CEC JRC Ispra,1989)        *
*****************************************************
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The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000
contains 1840 Nuclides.

Gamma Data were supplied for 1390 Nuclides.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

The Library Activation library
contains12392 Reactions.
at 175 Groups.

Set of Fluxes 6 : AJBRF Soil (Side) Flux

Fluxes

0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	1.18160E+05	1.18160E+05
1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05
1.18160E+05					

Total Flux at 175 Groups : 2.64133E+07 !

DENSITY 2.350(g/cm3)

ELEM.	Weight %	AT.WEIGHT	ISO	Rel.Abb.	N/cm3
Na	0.0177	22.9910			1.09073E+19

			Na 23	1.00000	1.09073E+19
Al	21.1000	26.9800			1.10676E+22
			Al 27	1.00000	1.10676E+22
S	2.1200	32.0660			9.35628E+20
			S 32	0.95020	8.89034E+20
			S 33	0.00750	7.01721E+18
			S 34	0.04210	3.93899E+19
			S 36	0.00020	1.87126E+17
K	3.7500	39.1000			1.35727E+21
			K 39	0.93258	1.26577E+21
			K 40	0.00012	1.58801E+17
			K 41	0.06730	9.13471E+19
Ca	80.1800	40.0800			2.83107E+22
			Ca 40	0.96941	2.74447E+22
			Ca 42	0.00647	1.83170E+20
			Ca 43	0.00135	3.82194E+19
			Ca 44	0.02086	5.90561E+20
			Ca 46	0.00004	1.13243E+18
			Ca 48	0.00187	5.29410E+19
Fe	9.6400	55.8500			2.44268E+21
			Fe 54	0.05850	1.42897E+20
			Fe 56	0.91750	2.24116E+21
			Fe 57	0.02120	5.17848E+19
			Fe 58	0.00280	6.83950E+18
Sc	0.400 ppm	44.9600			1.25906E+16
			Sc 45	1.00000	1.25906E+16
Ti	0.0105	47.9000			3.09035E+18
			Ti 46	0.08250	2.54954E+17
			Ti 47	0.07440	2.29922E+17
			Ti 48	0.73720	2.27821E+18
			Ti 49	0.05410	1.67188E+17
			Ti 50	0.05180	1.60080E+17
V	0.0003	50.9500			8.88828E+16
			V 50	0.00250	2.22207E+14
			V 51	0.99750	8.86606E+16
Cr	0.0003	52.0100			7.34665E+16
			Cr 50	0.04345	3.19212E+15
			Cr 52	0.83790	6.15575E+16
			Cr 53	0.09500	6.97931E+15
			Cr 54	0.02365	1.73748E+15
Mn	0.0012	54.9400			3.21983E+17
			Mn 55	1.00000	3.21983E+17
Co	0.600 ppm	58.9400			1.44063E+16
			Co 59	1.00000	1.44063E+16
Ni	0.0002	58.7100			4.33883E+16
			Ni 58	0.68077	2.95375E+16
			Ni 60	0.26223	1.13777E+16
			Ni 61	0.01140	4.94627E+14
			Ni 62	0.03634	1.57673E+15
			Ni 64	0.00926	4.01776E+14
Cu	0.0001	63.5400			2.89540E+16
			Cu 63	0.69170	2.00275E+16
			Cu 65	0.30830	8.92651E+15
Zn	0.0002	65.3800			4.54555E+16
			Zn 64	0.48600	2.20914E+16
			Zn 66	0.27900	1.26821E+16
			Zn 67	0.04100	1.86368E+15
			Zn 68	0.18800	8.54564E+15
			Zn 70	0.00600	2.72733E+14
Ga	0.500 ppm	69.7200			1.01490E+16
			Ga 69	0.60110	6.10059E+15
			Ga 71	0.39890	4.04845E+15
As	0.600 ppm	74.9200			1.13335E+16
			As 75	1.00000	1.13335E+16
Br	0.200 ppm	79.9160			3.54167E+15
			Br 79	0.50690	1.79527E+15
			Br 81	0.49310	1.74640E+15
Rb	0.0002	85.4800			2.98003E+16
			Rb 85	0.72170	2.15069E+16
			Rb 87	0.27830	8.29341E+15
Sr	0.0015	87.6300			2.43858E+17
			Sr 84	0.00560	1.36560E+15
			Sr 86	0.09860	2.40444E+16
			Sr 87	0.07000	1.70700E+16
			Sr 88	0.82580	2.01378E+17
Y	0.900 ppm	88.9100			1.43253E+16
			Y 89	1.00000	1.43253E+16
Zr	0.0004	91.2200			5.74016E+16
			Zr 90	0.51450	2.95331E+16
			Zr 91	0.11220	6.44046E+15
			Zr 92	0.17150	9.84437E+15
			Zr 94	0.17380	9.97639E+15
			Zr 96	0.02800	1.60724E+15
Nb	0.300 ppm	92.9100			4.56952E+15
			Nb 93	1.00000	4.56952E+15
Sb	0.100 ppm	121.7600			1.16227E+15
			Sb121	0.57210	6.64935E+14
			Sb123	0.42790	4.97336E+14
Ba	0.0020	137.3600			2.08115E+17
			Ba130	0.00106	2.20602E+14
			Ba132	0.00101	2.10196E+14
			Ba134	0.02417	5.03014E+15
			Ba135	0.06592	1.37189E+16
			Ba136	0.07854	1.63453E+16
			Ba137	0.11232	2.33755E+16

			Ba138	0.71698	1.49214E+17
Sm	0.200 ppm	150.3500			1.88252E+15
			Sm144	0.03080	5.79815E+13
			Sm147	0.14990	2.82189E+14
			Sm148	0.11240	2.11595E+14
			Sm149	0.13820	2.60164E+14
			Sm150	0.07380	1.38930E+14
			Sm152	0.26740	5.03385E+14
			Sm154	0.22750	4.28272E+14
Eu	0.000 ppm	152.0000			0.00000E+00
			Eu151	0.47810	0.00000E+00
			Eu153	0.52190	0.00000E+00
Ta	0.000 ppm	180.9500			0.00000E+00
			Ta180	0.00012	0.00000E+00
			Ta181	0.99988	0.00000E+00
W	0.100 ppm	183.8600			7.69706E+14
			W180	0.00120	9.23647E+11
			W182	0.26500	2.03972E+14
			W183	0.14310	1.10145E+14
			W184	0.30640	2.35838E+14
			W186	0.28430	2.18827E+14
Pb	0.700 ppm	207.2100			4.78079E+15
			Pb204	0.01400	6.69310E+13
			Pb206	0.24100	1.15217E+15
			Pb207	0.22100	1.05655E+15
			Pb208	0.52400	2.50513E+15
U	0.200 ppm	238.0700			1.18888E+15
			U234	0.00006	6.53883E+10
			U235	0.00720	8.55992E+12
			U238	0.99274	1.18025E+15

116.8251
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Isotope	N/cm3
Na 23	1.09073E+19
Al 27	1.10676E+22
S 32	8.89034E+20
S 33	7.01721E+18
S 34	3.93899E+19
S 36	1.87126E+17
K 39	1.26577E+21
K 40	1.58801E+17
K 41	9.13471E+19
Ca 40	2.74447E+22
Ca 42	1.83170E+20
Ca 43	3.82194E+19
Ca 44	5.90561E+20
Ca 46	1.13243E+18
Ca 48	5.29410E+19
Sc 45	1.25906E+16
Ti 46	2.54954E+17
Ti 47	2.29922E+17
Ti 48	2.27821E+18
Ti 49	1.67188E+17
Ti 50	1.60080E+17
V 50	2.22207E+14
V 51	8.86606E+16
Cr 50	3.19212E+15
Cr 52	6.15575E+16
Cr 53	6.97931E+15
Cr 54	1.73748E+15
Mn 55	3.21983E+17
Fe 54	1.42897E+20
Fe 56	2.24116E+21
Fe 57	5.17848E+19
Fe 58	6.83950E+18
Co 59	1.44063E+16
Ni 58	2.95375E+16
Ni 60	1.13777E+16
Ni 61	4.94627E+14
Ni 62	1.57673E+15
Ni 64	4.01776E+14
Cu 63	2.00275E+16
Cu 65	8.92651E+15
Zn 64	2.20914E+16
Zn 66	1.26821E+16
Zn 67	1.86368E+15
Zn 68	8.54564E+15
Zn 70	2.72733E+14
Ga 69	6.10059E+15
Ga 71	4.04845E+15
As 75	1.13335E+16
Br 79	1.79527E+15

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Isotope	N/cm3
Br 81	1.74640E+15
Rb 85	2.15069E+16
Rb 87	8.29341E+15
Sr 84	1.36560E+15
Sr 86	2.40444E+16

Sr 87	1.70700E+16
Sr 88	2.01378E+17
Y 89	1.43253E+16
Zr 90	2.95331E+16
Zr 91	6.44046E+15
Zr 92	9.84437E+15
Zr 94	9.97639E+15
Zr 96	1.60724E+15
Nb 93	4.56952E+15
Sb121	6.64935E+14
Sb123	4.97336E+14
Ba130	2.20602E+14
Ba132	2.10196E+14
Ba134	5.03014E+15
Ba135	1.37189E+16
Ba136	1.63453E+16
Ba137	2.33755E+16
Ba138	1.49214E+17
Sm144	5.79815E+13
Sm147	2.82189E+14
Sm148	2.11595E+14
Sm149	2.60164E+14
Sm150	1.38930E+14
Sm152	5.03385E+14
Sm154	4.28272E+14
Eu151	0.00000E+00
Eu153	0.00000E+00
Ta180	0.00000E+00
Ta181	0.00000E+00
W180	9.23647E+11
W182	2.03972E+14
W183	1.10145E+14
W184	2.35838E+14
W186	2.18827E+14
Pb204	6.69310E+13
Pb206	1.15217E+15
Pb207	1.05655E+15
Pb208	2.50513E+15
U234	6.53883E+10
U235	8.55992E+12
U238	1.18025E+15

In Total : 4.41291E+22 Min. acceptable Conc. : 4.41291E+10 N/cm3.

Elapsed Time.

Step 1 : Activation of 9.32074E+07(s), i.e. 2.95 (y) 2.95 (y) Intervals : 2

Cooling Times (s) :

1.0000E+00 1.0000E+03 1.0000E+06 1.0000E+09

1.0 (s) 16.7 (m) 11.6 (d) 31.7 (y)

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 2.95 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.7614E+11								
P 33	1.1133E+06	4.3141E-15	1.3656E-08	0.0000E+00	3.5169E-01	9.5051E-12	8.4337E-08	2.540E+01 (d)	P 33
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	5.2744E+07	3.7832E-14	4.1261E-07	0.0000E+00	4.8361E+00	1.3071E-10	3.7201E-06	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	1.6114E+08	1.5836E-14	6.9154E-08	5.0798E-03	3.6901E+01	9.9732E-10	3.1009E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03 (My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	7.6337E+11	8.5564E-17	4.0114E-04	3.0286E-05	1.6283E-01	4.4007E-12	4.7196E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	6.3905E+09	3.8980E-12	7.9051E-05	0.0000E+00	3.1512E+02	8.5167E-09	2.3873E-04	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.6179E+05	1.0418E-13	5.8925E-08	2.0885E-01	4.6284E-01	1.2509E-11	7.4055E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.9301E+05	2.0098E-14	8.3813E-09	2.1376E-02	4.6284E-01	1.2509E-11	2.5019E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								

Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.4730E+10	1.1164E-13	1.3901E-05	8.4074E-02	1.1830E+02	3.1973E-09	3.9043E-05	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Fe 59	6.8650E+07	2.5918E-12	1.4375E-05	6.2636E+00	1.2378E+01	3.3453E-10	2.2262E-05	4.450E+01 (d)	Fe 59
Co 59	1.4406E+16								
Co 60	9.4858E+07	1.6468E-13	3.9520E-05	4.2117E-01	3.9528E-01	1.0683E-11	1.3445E-06	5.271E+00 (y)	Co 60
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0472E+05	8.8564E-14	2.1480E-08	4.3993E-02	1.6686E+00	4.5098E-11	1.2360E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0810E+05	2.6257E-14	7.7068E-09	2.8553E-02	3.6829E-01	9.9539E-12	2.9463E-07	2.355E+00 (d)	Np239

here are 116 Nuclides.

Totals: 4.4129E+22 1.0083E-09 1.847789E+04 1.5226E+03 2.6655E+03 7.2040E-08 4.3623E-04
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 2.95 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	6.01742E+08
He	2.23669E+10
Na	1.09073E+19
Mg	5.18233E+08
Al	1.10676E+22
Si	1.94380E+11
P	1.11329E+06
S	9.35628E+20
Cl	4.36823E+09
Ar	7.30167E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.59882E+07
As	1.13335E+16
Se	7.72779E+07
Br	3.54167E+15
Kr	3.49945E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.46743E+06
In	3.12104E-07
Sn	3.44109E+05
Sb	1.16227E+15
Te	2.03483E+07
I	6.65814E-03
Xe	4.03667E+06
Cs	1.72091E+05
Ba	2.08115E+17
La	3.33709E+06
Ce	1.70101E-01
Pr	5.46871E-02
Nd	3.48415E+03
Pm	7.72619E+04
Sm	1.88252E+15
Eu	1.56472E+08
Gd	2.91626E+05
Lu	0.00000E+00
Hf	1.75003E-02
Ta	2.07872E+04
W	7.69706E+14
Re	2.45697E+06
Hg	2.06236E-01
Tl	4.05148E-01
Pb	4.78079E+15
Bi	2.13939E+03
Th	2.79226E-03
U	1.18888E+15
Np	1.08099E+05
Pu	3.42174E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.8379E-01	5.1598E+00
2	(0.1 -> 0.2 MeV)	2.1838E-01	1.4089E+00
3	(0.2 -> 0.4 MeV)	2.6759E-01	8.9196E-01
4	(0.4 -> 0.6 MeV)	2.2054E+00	4.4108E+00
5	(0.6 -> 0.8 MeV)	5.7842E-02	8.2631E-02
6	(0.8 -> 1.0 MeV)	5.0453E+00	5.6059E+00

7 (1.0 ->1.22 MeV)	8.3174E+00	7.4931E+00
8 (1.22 ->1.44 MeV)	1.6229E+01	1.2202E+01
9 (1.44 ->1.66 MeV)	5.8877E+01	3.7985E+01
10 (1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11 (2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12 (2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13 (3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14 (4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15 (5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	5.0187E+01	7.4931E+00	5.6059E+00	8.2631E-02
4.4108E+00	4.4598E-01	4.4598E-01	1.4089E+00	2.5799E+00	2.5799E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 1.00 (s)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Na 24	4.3304E+05	4.1690E-12	3.2444E-07	9.7658E+00	5.5646E+00	1.5039E-10	2.3882E-06	Na 24
Al 27	1.1068E+22							
Al 28	3.6471E+05	9.0973E-10	1.7648E-07	1.4264E+03	1.8801E+03	5.0813E-08	9.2161E-06	Al 28
Si 28	1.7614E+11							
P 33	1.1133E+06	4.3141E-15	1.3656E-08	0.0000E+00	3.5169E-01	9.5051E-12	8.4337E-08	P 33
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 35	5.2744E+07	3.7832E-14	4.1261E-07	0.0000E+00	4.8361E+00	1.3071E-10	3.7201E-06	S 35
S 36	1.8713E+17							
Ar 37	1.6114E+08	1.5836E-14	6.9154E-08	5.0798E-03	3.6901E+01	9.9732E-10	3.1009E-06	Ar 37
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
K 42	1.3032E+07	5.5665E-11	3.5774E-06	2.5575E+01	2.0278E+02	5.4807E-09	8.7032E-05	K 42
Ca 40	2.7445E+22							
Ca 41	7.6337E+11	8.5564E-17	4.0114E-04	3.0286E-05	1.6283E-01	4.4007E-12	4.7196E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	6.3905E+09	3.8980E-12	7.9051E-05	0.0000E+00	3.1512E+02	8.5167E-09	2.3873E-04	Ca 45
Ca 46	1.1324E+18							
Ca 47	2.6179E+05	1.0418E-13	5.8925E-08	2.0885E-01	4.6284E-01	1.2509E-11	7.4055E-07	Ca 47
Ca 48	5.2941E+19							
Ca 49	2.2884E+04	1.9608E-11	1.4799E-08	4.0865E+01	3.0322E+01	8.1951E-10	3.9430E-06	Ca 49
Sc 45	1.2591E+16							
Sc 47	1.9301E+05	2.0098E-14	8.3813E-09	2.1376E-02	4.6284E-01	1.2509E-11	2.5019E-07	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	Sc 49
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
V 52	9.2372E+01	1.1471E-13	3.7183E-11	1.7563E-01	2.8497E-01	7.7018E-12	3.9912E-09	V 52
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Mn 56	7.7755E+04	2.3477E-12	3.1446E-08	4.2012E+00	5.8052E+00	1.5690E-10	1.4513E-06	Mn 56
Fe 54	1.4290E+20							
Fe 55	1.4730E+10	1.1164E-13	1.3901E-05	8.4074E-02	1.1830E+02	3.1973E-09	3.9043E-05	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Fe 59	6.8649E+07	2.5918E-12	1.4375E-05	6.2636E+00	1.2378E+01	3.3453E-10	2.2262E-05	Fe 59
Co 59	1.4406E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Co 60	9.4858E+07	1.6468E-13	3.9520E-05	4.2117E-01	3.9528E-01	1.0683E-11	1.3445E-06	Co 60
Co 60m1	6.2332E+02	7.0188E-15	6.3634E-12	2.0269E-03	6.8753E-01	1.8582E-11	1.1693E-09	Co 60m1
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							

Ga 69	6.1006E+15							
Ga 71	4.0485E+15							
As 75	1.1334E+16							
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1795E-11	1.2903E-06	As 76
Br 79	1.7953E+15							
Br 80	4.3741E+02	3.6844E-14	5.6131E-11	9.4078E-03	2.8710E-01	7.7596E-12	8.8887E-09	Br 80
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm153	4.0471E+05	8.8563E-14	2.1480E-08	4.3992E-02	1.6686E+00	4.5098E-11	1.2360E-06	Sm153
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
U239	7.4789E+02	2.7214E-14	5.5291E-11	8.0782E-03	3.6811E-01	9.9490E-12	1.0311E-08	U239
Np239	1.0810E+05	2.6257E-14	7.7068E-09	2.8553E-02	3.6829E-01	9.9539E-12	2.9463E-07	Np239
1.0 (s)		1.0033E-09	1.847789E+04	1.5144E+03	2.6515E+03	7.1662E-08	4.3617E-04	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 1.00 (s)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.8378E-01	5.1596E+00
2	(0.1 -> 0.2 MeV)	2.1838E-01	1.4089E+00
3	(0.2 -> 0.4 MeV)	2.6758E-01	8.9194E-01
4	(0.4 -> 0.6 MeV)	2.3180E-01	4.6361E-01
5	(0.6 -> 0.8 MeV)	5.7833E-02	8.2618E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6055E+00
7	(1.0 ->1.22 MeV)	8.3173E+00	7.4931E+00
8	(1.22 ->1.44 MeV)	1.6227E+01	1.2201E+01
9	(1.44 ->1.66 MeV)	5.8876E+01	3.7984E+01
10	(1.66 -> 2.0 MeV)	3.3472E+03	1.8291E+03
11	(2.0 -> 2.5 MeV)	2.3613E+00	1.0495E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6822E+00
13	(3.0 -> 4.0 MeV)	8.6178E+01	2.4622E+01
14	(4.0 -> 5.0 MeV)	8.9468E+00	1.9882E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9882E+00	2.4622E+01	5.6822E+00
1.0495E+00	1.8291E+03	5.0185E+01	7.4931E+00	5.6055E+00	8.2618E-02
4.6361E-01	4.4597E-01	4.4597E-01	1.4089E+00	2.5798E+00	2.5798E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 16.67 (m)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Na 24	4.2752E+05	4.1159E-12	3.2030E-07	9.6413E+00	5.4936E+00	1.4848E-10	2.3578E-06	Na 24
Al 27	1.1068E+22							
Al 28	2.1154E+03	5.2767E-12	1.0236E-09	8.2733E+00	1.0905E+01	2.9473E-10	5.3456E-08	Al 28
Si 28	1.7614E+11							
P 33	1.1129E+06	4.3127E-15	1.3652E-08	0.0000E+00	3.5158E-01	9.5021E-12	8.4311E-08	P 33
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 35	5.2740E+07	3.7828E-14	4.1257E-07	0.0000E+00	4.8357E+00	1.3069E-10	3.7198E-06	S 35
S 36	1.8713E+17							
Ar 37	1.6110E+08	1.5833E-14	6.9139E-08	5.0786E-03	3.6892E+01	9.9709E-10	3.1002E-06	Ar 37
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
K 42	1.2831E+07	5.4806E-11	3.5222E-06	2.5181E+01	1.9966E+02	5.3961E-09	8.5689E-05	K 42
Ca 40	2.7445E+22							
Ca 41	7.6337E+11	8.5564E-17	4.0114E-04	3.0286E-05	1.6283E-01	4.4007E-12	4.7196E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	6.3902E+09	3.8978E-12	7.9047E-05	0.0000E+00	3.1510E+02	8.5163E-09	2.3871E-04	Ca 45
Ca 46	1.1324E+18							
Ca 47	2.6133E+05	1.0399E-13	5.8821E-08	2.0848E-01	4.6203E-01	1.2487E-11	7.3924E-07	Ca 47
Ca 48	5.2941E+19							
Ca 49	6.0908E+03	5.2188E-12	3.9387E-09	1.0876E+01	8.0703E+00	2.1812E-10	1.0495E-06	Ca 49
Sc 45	1.2591E+16							
Sc 47	1.9301E+05	2.0098E-14	8.3813E-09	2.1376E-02	4.6284E-01	1.2509E-11	2.5018E-07	Sc 47
Sc 49	1.3772E+05	3.6482E-12	1.8061E-08	1.1838E-02	2.7819E+01	7.5188E-10	2.2803E-06	Sc 49
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Mn 56	7.2167E+04	2.1790E-12	2.9186E-08	3.8992E+00	5.3880E+00	1.4562E-10	1.3470E-06	Mn 56
Fe 54	1.4290E+20							
Fe 55	1.4730E+10	1.1164E-13	1.3901E-05	8.4073E-02	1.1830E+02	3.1973E-09	3.9043E-05	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Fe 59	6.8637E+07	2.5914E-12	1.4372E-05	6.2625E+00	1.2375E+01	3.3447E-10	2.2258E-05	Fe 59
Co 59	1.4406E+16							
Co 60	9.4858E+07	1.6468E-13	3.9520E-05	4.2117E-01	3.9528E-01	1.0683E-11	1.3445E-06	Co 60

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							
Ga 71	4.0485E+15							
As 75	1.1334E+16							
As 76	1.0944E+05	1.9156E-13	2.6187E-08	1.4761E-01	8.0056E-01	2.1637E-11	1.2809E-06	As 76
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							

Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm153	4.0305E+05	8.8199E-14	2.1392E-08	4.3812E-02	1.6618E+00	4.4913E-11	1.2309E-06	Sm153
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
Np239	1.0802E+05	2.6238E-14	7.7013E-09	2.8532E-02	3.6803E-01	9.9467E-12	2.9442E-07	Np239
16.7 (m)		8.2803E-11	1.847789E+04	6.5288E+01	7.5224E+02	2.0331E-08	4.2237E-04	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 16.67 (m)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.6645E-01	4.8445E+00
2	(0.1 -> 0.2 MeV)	2.1690E-01	1.3994E+00
3	(0.2 -> 0.4 MeV)	2.6399E-01	8.7995E-01
4	(0.4 -> 0.6 MeV)	2.2345E-01	4.4690E-01
5	(0.6 -> 0.8 MeV)	4.1539E-02	5.9341E-02
6	(0.8 -> 1.0 MeV)	4.6503E+00	5.1670E+00
7	(1.0 ->1.22 MeV)	8.2864E+00	7.4652E+00
8	(1.22 ->1.44 MeV)	1.5496E+01	1.1651E+01
9	(1.44 ->1.66 MeV)	5.7974E+01	3.7402E+01
10	(1.66 -> 2.0 MeV)	2.2274E+01	1.2172E+01
11	(2.0 -> 2.5 MeV)	1.8796E+00	8.3539E-01
12	(2.5 -> 3.0 MeV)	1.5409E+01	5.6031E+00
13	(3.0 -> 4.0 MeV)	2.2965E+01	6.5615E+00
14	(4.0 -> 5.0 MeV)	2.3814E+00	5.2919E-01
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	5.2919E-01	6.5615E+00	5.6031E+00
8.3539E-01	1.2172E+01	4.9054E+01	7.4652E+00	5.1670E+00	5.9341E-02
4.4690E-01	4.3998E-01	4.3998E-01	1.3994E+00	2.4222E+00	2.4222E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 11.57 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.7614E+11							
P 33	8.1173E+05	3.1455E-15	9.9574E-09	0.0000E+00	2.5643E-01	6.9304E-12	6.1493E-08	P 33
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 35	4.8123E+07	3.4517E-14	3.7646E-07	0.0000E+00	4.4124E+00	1.1925E-10	3.3942E-06	S 35
S 36	1.8713E+17							
Ar 37	1.2816E+08	1.2595E-14	5.5000E-08	4.0401E-03	2.9348E+01	7.9320E-10	2.4662E-06	Ar 37
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.6337E+11	8.5564E-17	4.0114E-04	3.0286E-05	1.6283E-01	4.4007E-12	4.7196E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	6.0831E+09	3.7105E-12	7.5248E-05	0.0000E+00	2.9996E+02	8.1069E-09	2.2724E-04	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							

Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.4613E+10	1.1075E-13	1.3790E-05	8.3401E-02	1.1735E+02	3.1717E-09	3.8731E-05	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Fe 59	5.7324E+07	2.1642E-12	1.2003E-05	5.2302E+00	1.0335E+01	2.7934E-10	1.8589E-05	Fe 59
Co 59	1.4406E+16							
Co 60	9.4465E+07	1.6400E-13	3.9356E-05	4.1942E-01	3.9363E-01	1.0639E-11	1.3389E-06	Co 60
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
11.6 (d)		6.5050E-12	1.847789E+04	5.9194E+00	4.6496E+02	1.2566E-08	3.0936E-04	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 11.57 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.0187E-01	3.6703E+00
2	(0.1 -> 0.2 MeV)	7.6960E-02	4.9651E-01
3	(0.2 -> 0.4 MeV)	1.0073E-02	3.3578E-02
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	2.4716E-05	2.7463E-05
7	(1.0 ->1.22 MeV)	6.9030E+00	6.2189E+00
8	(1.22 ->1.44 MeV)	6.2780E+00	4.7203E+00
9	(1.44 ->1.66 MeV)	4.3451E-01	2.8033E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	9.1789E-06	4.0795E-06
12	(2.5 -> 3.0 MeV)	5.0849E-08	1.8491E-08
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	1.8491E-08
4.0795E-06	9.0340E-10	5.0006E+00	6.2189E+00	2.7463E-05	4.8719E-09
5.5737E-05	1.6789E-02	1.6789E-02	4.9651E-01	1.8352E+00	1.8352E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 31.69 (y)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.7614E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.6321E+11	8.5546E-17	4.0106E-04	3.0279E-05	1.6279E-01	4.3998E-12	4.7186E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							
Ga 71	4.0485E+15							
As 75	1.1334E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							

Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
31.7 (y)		3.0527E-13	1.847789E+04	1.8234E-01	2.9036E+00	7.8475E-11	1.7536E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 31.69 (y)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.7368E-04	3.1578E-03
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.5789E-03	1.5789E-03

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 31.69 (y)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	6.01742E+08
He	2.23669E+10
Na	1.09073E+19
Mg	5.18666E+08
Al	1.10676E+22
Si	1.94380E+11
P	0.00000E+00
S	9.35628E+20
Cl	4.58206E+09
Ar	5.26638E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18

V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.60001E+07
As	1.13335E+16
Se	7.73883E+07
Br	3.54167E+15
Kr	3.50156E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.55369E+06
In	0.00000E+00
Sn	3.45354E+05
Sb	1.16227E+15
Te	2.09392E+07
I	6.99916E-03
Xe	4.15612E+06
Cs	1.15349E+06
Ba	2.08115E+17
La	3.33735E+06
Ce	1.70872E-01
Pr	5.46942E-02
Nd	9.64761E+04
Pm	3.90524E+04
Sm	1.88252E+15
Eu	1.56673E+08
Gd	1.56771E+06
Lu	0.00000E+00
Hf	1.75003E-02
Ta	2.47898E+04
W	7.69706E+14
Re	2.50852E+06
Hg	2.01624E-01
Tl	4.34033E-01
Pb	4.78079E+15
Bi	2.13978E+03
Th	1.22622E-01
U	1.18888E+15
Np	0.00000E+00
Pu	3.42949E+07
Totals:	4.41291E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.807E-04	1.134E+03	2.665E+03	7.204E-02	4.362E-04	1.008E-09	1.847789E+04
1.0 (s)	3.786E-04	1.128E+03	2.652E+03	7.166E-02	4.362E-04	1.003E-09	1.847789E+04
16.7 (m)	1.632E-05	3.201E+02	7.522E+02	2.033E-02	4.224E-04	8.280E-11	1.847789E+04
11.6 (d)	1.480E-06	1.979E+02	4.650E+02	1.257E-02	3.094E-04	6.505E-12	1.847789E+04
31.7 (y)	4.559E-08	1.236E+00	2.904E+00	7.848E-05	1.754E-05	3.053E-13	1.847789E+04

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.665E+03	3.807E-04	4.362E-04	1.008E-09
1.0 (s)	2.652E+03	3.786E-04	4.362E-04	1.003E-09
16.7 (m)	7.522E+02	1.632E-05	4.224E-04	8.280E-11
11.6 (d)	4.650E+02	1.480E-06	3.094E-04	6.505E-12
31.7 (y)	2.904E+00	4.559E-08	1.754E-05	3.053E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.134E+06	4.291E-10	3.066E-05	1.523E+03
1.0 (s)	1.128E+06	4.269E-10	3.049E-05	1.514E+03
16.7 (m)	3.201E+05	3.524E-11	8.651E-06	6.529E+01
11.6 (d)	1.979E+05	2.768E-12	5.347E-06	5.919E+00
31.7 (y)	1.236E+03	1.299E-13	3.339E-08	1.823E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.134E+03	3.807E-04	4.291E-10	2.770E+03
1.0 (s)	1.128E+03	3.786E-04	4.269E-10	2.755E+03
16.7 (m)	3.201E+02	1.632E-05	3.524E-11	7.173E+01
11.6 (d)	1.979E+02	1.480E-06	2.768E-12	2.642E+00
31.7 (y)	1.236E+00	4.559E-08	1.299E-13	4.035E-01

The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000

we hope that all was O.K.!

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ANITA-2000 INPUT FILE

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   31    6NYAJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital
 2.35      1.0000-12  1.0      NBS Concrete Slab
Na  0.01772
Al 21.10000
S   2.12000
K   3.75000
Ca 80.18000
Fe  9.64000
Sc  0.00004
Ti  0.01046
V   0.00032
Cr  0.00027
Mn  0.00125
Co  0.00006
Ni  0.00018
Cu  0.00013
Zn  0.00021
Ga  0.00005
As  0.00006
Br  0.00002
Rb  0.00018
Sr  0.00151
Y   0.00009
Zr  0.00037
Nb  0.00003
Sb  0.00001
Ba  0.00202
Sm  0.00002
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6.89330+053.08467+07
2.37945+062.91565+07
2.45055+062.90854+07
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3.16070+062.83753+07
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1.58702+062.99490+07
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ANITA-2000 OUTPUT FILE

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*****************************************************
* Authors:                                          *
* Dan Gabriel Cepraga - ENEA Bologna Italy          *
* Gilio Cambi         - Bologna University Italy    *
* Manuela Frisoni     - ATHENA S.a.S. Bologna Italy *
* Gian Carlo Panini   - ENEA Bologna Italy          *
* (ANITA-2000 is based on the ANITA code by C. Ponti*
*  and S.Stramaccia    - CEC JRC Ispra,1989)        *
*****************************************************
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The Library     *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000
contains 1840  Nuclides.


Gamma Data were supplied for 1390 Nuclides.
     AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital


The Library Activation library
contains12392  Reactions.
         at  175 Groups.


Set of Fluxes   6 : AJBRF Soil (Side) Flux

Fluxes
0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00
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2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
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2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
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2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	1.18160E+05	1.18160E+05
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1.18160E+05					

Total Flux at 175 Groups : 2.64133E+07 !

DENSITY 2.350(g/cm3)

ELEM.	Weight %	AT.WEIGHT	ISO	Rel.Abb.	N/cm3
Na	0.0177	22.9910			1.09073E+19
			Na 23	1.00000	1.09073E+19
Al	21.1000	26.9800			1.10676E+22
			Al 27	1.00000	1.10676E+22
S	2.1200	32.0660			9.35628E+20
			S 32	0.95020	8.89034E+20
			S 33	0.00750	7.01721E+18
			S 34	0.04210	3.93899E+19
			S 36	0.00020	1.87126E+17
K	3.7500	39.1000			1.35727E+21
			K 39	0.93258	1.26577E+21
			K 40	0.00012	1.58801E+17
			K 41	0.06730	9.13471E+19
Ca	80.1800	40.0800			2.83107E+22
			Ca 40	0.96941	2.74447E+22
			Ca 42	0.00647	1.83170E+20
			Ca 43	0.00135	3.82194E+19
			Ca 44	0.02086	5.90561E+20
			Ca 46	0.00004	1.13243E+18
			Ca 48	0.00187	5.29410E+19
Fe	9.6400	55.8500			2.44268E+21
			Fe 54	0.05850	1.42897E+20
			Fe 56	0.91750	2.24116E+21
			Fe 57	0.02120	5.17848E+19
			Fe 58	0.00280	6.83950E+18
Sc	0.400 ppm	44.9600			1.25906E+16
			Sc 45	1.00000	1.25906E+16
Ti	0.0105	47.9000			3.09035E+18
			Ti 46	0.08250	2.54954E+17
			Ti 47	0.07440	2.29922E+17
			Ti 48	0.73720	2.27821E+18
			Ti 49	0.05410	1.67188E+17
			Ti 50	0.05180	1.60080E+17
V	0.0003	50.9500			8.88828E+16
			V 50	0.00250	2.22207E+14
			V 51	0.99750	8.86606E+16
Cr	0.0003	52.0100			7.34665E+16
			Cr 50	0.04345	3.19212E+15
			Cr 52	0.83790	6.15575E+16
			Cr 53	0.09500	6.97931E+15
			Cr 54	0.02365	1.73748E+15
Mn	0.0012	54.9400			3.21983E+17
			Mn 55	1.00000	3.21983E+17
Co	0.600 ppm	58.9400			1.44063E+16
			Co 59	1.00000	1.44063E+16
Ni	0.0002	58.7100			4.33883E+16
			Ni 58	0.68077	2.95375E+16
			Ni 60	0.26223	1.13777E+16
			Ni 61	0.01140	4.94627E+14
			Ni 62	0.03634	1.57673E+15
			Ni 64	0.00926	4.01776E+14
Cu	0.0001	63.5400			2.89540E+16
			Cu 63	0.69170	2.00275E+16
			Cu 65	0.30830	8.92651E+15
Zn	0.0002	65.3800			4.54555E+16
			Zn 64	0.48600	2.20914E+16
			Zn 66	0.27900	1.26821E+16
			Zn 67	0.04100	1.86368E+15
			Zn 68	0.18800	8.54564E+15
			Zn 70	0.00600	2.72733E+14
Ga	0.500 ppm	69.7200			1.01490E+16
			Ga 69	0.60110	6.10059E+15
			Ga 71	0.39890	4.04845E+15
As	0.600 ppm	74.9200			1.13335E+16
			As 75	1.00000	1.13335E+16
Br	0.200 ppm	79.9160			3.54167E+15
			Br 79	0.50690	1.79527E+15

			Br 81	0.49310	1.74640E+15
Rb	0.0002	85.4800			2.98003E+16
			Rb 85	0.72170	2.15069E+16
			Rb 87	0.27830	8.29341E+15
Sr	0.0015	87.6300			2.43858E+17
			Sr 84	0.00560	1.36560E+15
			Sr 86	0.09860	2.40444E+16
			Sr 87	0.07000	1.70700E+16
			Sr 88	0.82580	2.01378E+17
Y	0.900 ppm	88.9100			1.43253E+16
			Y 89	1.00000	1.43253E+16
Zr	0.0004	91.2200			5.74016E+16
			Zr 90	0.51450	2.95331E+16
			Zr 91	0.11220	6.44046E+15
			Zr 92	0.17150	9.84437E+15
			Zr 94	0.17380	9.97639E+15
			Zr 96	0.02800	1.60724E+15
Nb	0.300 ppm	92.9100			4.56952E+15
			Nb 93	1.00000	4.56952E+15
Sb	0.100 ppm	121.7600			1.16227E+15
			Sb121	0.57210	6.64935E+14
			Sb123	0.42790	4.97336E+14
Ba	0.0020	137.3600			2.08115E+17
			Ba130	0.00106	2.20602E+14
			Ba132	0.00101	2.10196E+14
			Ba134	0.02417	5.03014E+15
			Ba135	0.06592	1.37189E+16
			Ba136	0.07854	1.63453E+16
			Ba137	0.11232	2.33755E+16
			Ba138	0.71698	1.49214E+17
Sm	0.200 ppm	150.3500			1.88252E+15
			Sm144	0.03080	5.79815E+13
			Sm147	0.14990	2.82189E+14
			Sm148	0.11240	2.11595E+14
			Sm149	0.13820	2.60164E+14
			Sm150	0.07380	1.38930E+14
			Sm152	0.26740	5.03385E+14
			Sm154	0.22750	4.28272E+14
Eu	0.000 ppm	152.0000			0.00000E+00
			Eu151	0.47810	0.00000E+00
			Eu153	0.52190	0.00000E+00
Ta	0.000 ppm	180.9500			0.00000E+00
			Ta180	0.00012	0.00000E+00
			Ta181	0.99988	0.00000E+00
W	0.100 ppm	183.8600			7.69706E+14
			W180	0.00120	9.23647E+11
			W182	0.26500	2.03972E+14
			W183	0.14310	1.10145E+14
			W184	0.30640	2.35838E+14
			W186	0.28430	2.18827E+14
Pb	0.700 ppm	207.2100			4.78079E+15
			Pb204	0.01400	6.69310E+13
			Pb206	0.24100	1.15217E+15
			Pb207	0.22100	1.05655E+15
			Pb208	0.52400	2.50513E+15
U	0.200 ppm	238.0700			1.18888E+15
			U234	0.00006	6.53883E+10
			U235	0.00720	8.55992E+12
			U238	0.99274	1.18025E+15

116.8251
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Isotope	N/cm3
Na 23	1.09073E+19
Al 27	1.10676E+22
S 32	8.89034E+20
S 33	7.01721E+18
S 34	3.93899E+19
S 36	1.87126E+17
K 39	1.26577E+21
K 40	1.58801E+17
K 41	9.13471E+19
Ca 40	2.74447E+22
Ca 42	1.83170E+20
Ca 43	3.82194E+19
Ca 44	5.90561E+20
Ca 46	1.13243E+18
Ca 48	5.29410E+19
Sc 45	1.25906E+16
Ti 46	2.54954E+17
Ti 47	2.29922E+17
Ti 48	2.27821E+18
Ti 49	1.67188E+17
Ti 50	1.60080E+17
V 50	2.22207E+14
V 51	8.86606E+16
Cr 50	3.19212E+15
Cr 52	6.15575E+16
Cr 53	6.97931E+15
Cr 54	1.73748E+15
Mn 55	3.21983E+17
Fe 54	1.42897E+20
Fe 56	2.24116E+21

Fe 57	5.17848E+19
Fe 58	6.83950E+18
Co 59	1.44063E+16
Ni 58	2.95375E+16
Ni 60	1.13777E+16
Ni 61	4.94627E+14
Ni 62	1.57673E+15
Ni 64	4.01776E+14
Cu 63	2.00275E+16
Cu 65	8.92651E+15
Zn 64	2.20914E+16
Zn 66	1.26821E+16
Zn 67	1.86368E+15
Zn 68	8.54564E+15
Zn 70	2.72733E+14
Ga 69	6.10059E+15
Ga 71	4.04845E+15
As 75	1.13335E+16
Br 79	1.79527E+15

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Isotope	N/cm3
Br 81	1.74640E+15
Rb 85	2.15069E+16
Rb 87	8.29341E+15
Sr 84	1.36560E+15
Sr 86	2.40444E+16
Sr 87	1.70700E+16
Sr 88	2.01378E+17
Y 89	1.43253E+16
Zr 90	2.95331E+16
Zr 91	6.44046E+15
Zr 92	9.84437E+15
Zr 94	9.97639E+15
Zr 96	1.60724E+15
Nb 93	4.56952E+15
Sb121	6.64935E+14
Sb123	4.97336E+14
Ba130	2.20602E+14
Ba132	2.10196E+14
Ba134	5.03014E+15
Ba135	1.37189E+16
Ba136	1.63453E+16
Ba137	2.33755E+16
Ba138	1.49214E+17
Sm144	5.79815E+13
Sm147	2.82189E+14
Sm148	2.11595E+14
Sm149	2.60164E+14
Sm150	1.38930E+14
Sm152	5.03385E+14
Sm154	4.28272E+14
Eu151	0.00000E+00
Eu153	0.00000E+00
Ta180	0.00000E+00
Ta181	0.00000E+00
W180	9.23647E+11
W182	2.03972E+14
W183	1.10145E+14
W184	2.35838E+14
W186	2.18827E+14
Pb204	6.69310E+13
Pb206	1.15217E+15
Pb207	1.05655E+15
Pb208	2.50513E+15
U234	6.53883E+10
U235	8.55992E+12
U238	1.18025E+15

In Total : 4.41291E+22 Min. acceptable Conc. : 4.41291E+10 N/cm3.

Elapsed Time.

Step 1 : Activation of 2.27682E+06(s), i.e. 26.35 (d) 26.35 (d) Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 26.35 (d) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24

Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	9.9396E+06	7.1293E-15	7.7755E-08	0.0000E+00	9.1136E-01	2.4631E-11	7.0105E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5472E+07	6.4344E-15	2.8098E-08	2.0639E-03	1.4993E+01	4.0522E-10	1.2599E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	6.8558E+08	4.1818E-13	8.4806E-06	0.0000E+00	3.3806E+01	9.1367E-10	2.5610E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	5.0650E+08	3.8387E-15	4.7798E-07	2.8909E-03	4.0677E+00	1.0994E-10	1.3425E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3114E+07	8.7264E-13	4.8399E-06	2.1089E+00	4.1674E+00	1.1263E-10	7.4953E-06	4.450E+01 (d)	Fe 59
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148

Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								
Pb204	6.6931E+13								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239
here are	112 Nuclides.								

Totals:	4.4129E+22	1.0028E-09	1.847787E+04	1.5180E+03	2.2349E+03	6.0404E-08	1.6428E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 26.35 (d) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.46989E+07
He	5.46361E+08
Na	1.09073E+19
Mg	1.22377E+07
Al	1.10676E+22
Si	4.74914E+09
P	5.70984E+05
S	9.35628E+20
Cl	3.65046E+07
Ar	7.94208E+07
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	6.23145E+05
As	1.13335E+16
Se	1.78000E+06
Br	3.54167E+15
Kr	8.33444E+05
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	2.25645E+04
In	3.12104E-07
Sn	7.19230E+03
Sb	1.16227E+15
Te	3.19091E+05
I	3.65093E-05
Xe	2.25300E+04
Cs	2.74228E+04
Ba	2.08115E+17
La	8.12814E+04
Ce	3.40658E-03
Pr	1.32897E-03
Nd	1.52753E-01
Pm	8.72907E+01
Sm	1.88252E+15
Eu	3.43295E+06
Gd	1.98421E+02
Lu	0.00000E+00
Hf	4.27461E-04
Ta	4.34957E+01
W	7.69706E+14
Re	4.80397E+04
Hg	6.43889E-03
Tl	2.37276E-02

Pb	4.78079E+15
Bi	5.13879E+01
Th	-1.95146E-03
U	1.18888E+15
Np	1.08052E+05
Pu	7.29736E+05

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.8889E-02	1.6162E+00
2	(0.1 -> 0.2 MeV)	1.5445E-01	9.9646E-01
3	(0.2 -> 0.4 MeV)	2.5957E-01	8.6524E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7371E+00	2.4658E+00
8	(1.22 ->1.44 MeV)	1.1124E+01	8.3639E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6345E+01	2.4658E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3262E-01	4.3262E-01	9.9646E-01	8.0808E-01	8.0808E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.6198E+08	9.8803E-14	2.0037E-06	0.0000E+00	7.9873E+00	2.1587E-10	6.0510E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	4.0044E+08	3.0348E-15	3.7789E-07	2.2855E-03	3.2159E+00	8.6916E-11	1.0614E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							

Zn 68	8.5456E+15
Zn 70	2.7273E+14
Ga 69	6.1006E+15
Ga 71	4.0485E+15
As 75	1.1334E+16

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	5.4518E-03	9.9124E-02
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	4.9562E-02	4.9562E-02

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.46989E+07
He	5.46361E+08
Na	1.09073E+19
Mg	1.26708E+07
Al	1.10676E+22
Si	4.74950E+09
P	5.52647E+01
S	9.35628E+20
Cl	1.11156E+08
Ar	1.39979E+07
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	6.35117E+05
As	1.13335E+16
Se	1.89040E+06
Br	3.54167E+15
Kr	8.55363E+05
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	3.70951E+04
In	0.00000E+00
Sn	8.43613E+03
Sb	1.16227E+15
Te	5.08627E+05
I	1.70758E-04
Xe	1.01524E+05
Cs	1.94500E+03
Ba	2.08115E+17
La	8.15388E+04
Ce	4.17397E-03
Pr	1.33604E-03
Nd	3.53677E+01
Pm	1.65942E+03
Sm	1.88252E+15
Eu	3.83376E+06
Gd	4.97259E+03
Lu	0.00000E+00
Hf	4.27488E-04
Ta	5.24796E+02
W	7.69706E+14
Re	6.08132E+04
Hg	4.93113E-03
Tl	2.52406E-02
Pb	4.78079E+15
Bi	5.17759E+01
Th	-1.86581E-03
U	1.18888E+15
Np	5.54030E-39
Pu	8.38514E+05
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.510E+02	2.235E+03	6.040E-02	1.643E-04	1.003E-09	1.847787E+04
338.6 (d)	4.615E-08	5.934E+00	1.394E+01	3.769E-04	2.460E-05	4.070E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.235E+03	3.795E-04	1.643E-04	1.003E-09
338.6 (d)	1.394E+01	4.615E-08	2.460E-05	4.070E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.510E+05	4.267E-10	2.570E-05	1.518E+03
338.6 (d)	5.934E+03	1.732E-13	1.604E-07	1.846E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.510E+02	3.795E-04	4.267E-10	2.768E+03
338.6 (d)	5.934E+00	4.615E-08	1.732E-13	4.091E-01

Elapsed Time.

Step 1 : Activation of 2.27682E+06(s), i.e. 26.35 (d) 26.35 (d) Intervals : 2
Cold Pause of 2.92592E+07(s), i.e. 338.65 (d) 365.00 (d)

Step 2 : Activation of 2.27682E+06(s), i.e. 26.35 (d) 1.07 (y) Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 1.07 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0491E+07	7.5250E-15	8.2070E-08	0.0000E+00	9.6193E-01	2.5998E-11	7.3995E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03 (My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.3036E+08	5.0649E-13	1.0271E-05	0.0000E+00	4.0945E+01	1.1066E-09	3.1019E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11 (My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	8.9968E+08	6.8185E-15	8.4902E-07	5.1349E-03	7.2254E+00	1.9528E-10	2.3846E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7560E-13	4.8564E-06	2.1160E+00	4.1815E+00	1.1301E-10	7.5207E-06	4.450E+01 (d)	Fe 59
Co 59	1.4406E+16								

Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								
Pb204	6.6931E+13								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 112 Nuclides.

Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2453E+03	6.0684E-08	1.7080E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 1.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.93979E+07
He	1.09272E+09
Na	1.09073E+19
Mg	2.49085E+07
Al	1.10676E+22
Si	9.49864E+09
P	5.71010E+05
S	9.35628E+20

Cl	1.47821E+08
Ar	9.33836E+07
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.25826E+06
As	1.13335E+16
Se	3.67039E+06
Br	3.54167E+15
Kr	1.68881E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	5.98305E+04
In	3.12104E-07
Sn	1.56284E+04
Sb	1.16227E+15
Te	8.28467E+05
I	2.07351E-04
Xe	1.24054E+05
Cs	2.95087E+04
Ba	2.08115E+17
La	1.62820E+05
Ce	7.58055E-03
Pr	2.66502E-03
Nd	4.03230E+01
Pm	1.82644E+03
Sm	1.88252E+15
Eu	7.26644E+06
Gd	5.51664E+03
Lu	0.00000E+00
Hf	8.54949E-04
Ta	5.79608E+02
W	7.69706E+14
Re	1.08953E+05
Hg	1.13669E-02
Tl	4.89719E-02
Pb	4.78079E+15
Bi	1.03164E+02
Th	-3.81061E-03
U	1.18888E+15
Np	1.08052E+05
Pu	1.56825E+06

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.4140E-02	1.7116E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9713E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9713E-01	8.5581E-01	8.5581E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.9619E+08	1.1967E-13	2.4269E-06	0.0000E+00	9.6741E+00	2.6146E-10	7.3289E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	7.1128E+08	5.3906E-15	6.7123E-07	4.0596E-03	5.7123E+00	1.5439E-10	1.8852E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							
Ga 71	4.0485E+15							
As 75	1.1334E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							

W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.3024E-13	1.847787E+04	1.8637E-01	1.8127E+01	4.8992E-10	2.6703E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.6008E-03	1.7456E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	8.7280E-02	8.7280E-02

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.93979E+07
He	1.09272E+09
Na	1.09073E+19
Mg	2.53415E+07
Al	1.10676E+22
Si	9.49900E+09
P	5.52673E+01
S	9.35628E+20
Cl	2.23034E+08
Ar	2.78814E+07
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.27023E+06
As	1.13335E+16
Se	3.78079E+06
Br	3.54167E+15
Kr	1.71072E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	7.48794E+04
In	0.00000E+00
Sn	1.68722E+04
Sb	1.16227E+15
Te	1.02008E+06
I	3.41729E-04
Xe	2.03047E+05
Cs	5.78282E+03
Ba	2.08115E+17

La	1.63078E+05
Ce	8.34795E-03
Pr	2.67209E-03
Nd	1.52807E+02
Pm	4.08494E+03
Sm	1.88252E+15
Eu	7.66398E+06
Gd	1.44290E+04
Lu	0.00000E+00
Hf	8.54976E-04
Ta	1.12037E+03
W	7.69706E+14
Re	1.22074E+05
Hg	9.85275E-03
Tl	5.04987E-02
Pb	4.78079E+15
Bi	1.03552E+02
Th	-3.63932E-03
U	1.18888E+15
Np	5.54030E-39
Pu	1.67700E+06
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.555E+02	2.245E+03	6.068E-02	1.708E-04	1.003E-09	1.847787E+04
338.6 (d)	4.659E-08	7.714E+00	1.813E+01	4.899E-04	2.670E-05	4.302E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.245E+03	3.795E-04	1.708E-04	1.003E-09
338.6 (d)	1.813E+01	4.659E-08	2.670E-05	4.302E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.555E+05	4.268E-10	2.582E-05	1.518E+03
338.6 (d)	7.714E+03	1.831E-13	2.085E-07	1.864E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.555E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	7.714E+00	4.659E-08	1.831E-13	4.129E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2

Elapsed Time : 1.07 (y)

N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3

otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2411E+03	6.0571E-08	1.7080E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3024E-13	1.847787E+04	1.8637E-01	1.8127E+01	4.8992E-10	2.6703E-05

Step : 3
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 2.07 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0522E+07	7.5469E-15	8.2309E-08	0.0000E+00	9.6474E-01	2.6074E-11	7.4211E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03 (My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	5.5942E+10	6.2703E-18	2.9397E-05	2.2194E-06	1.1932E-02	3.2250E-13	3.4587E-09	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6093E+08	5.2514E-13	1.0650E-05	0.0000E+00	4.2452E+01	1.1474E-09	3.2161E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11 (My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.2049E+09	9.1316E-15	1.1370E-06	6.8769E-03	9.6765E+00	2.6153E-10	3.1936E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1301E-10	7.5208E-06	4.450E+01 (d)	Fe 59
Co 59	1.4406E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04 (My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								

Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 113 Nuclides.

Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2493E+03	6.0792E-08	1.7275E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 2.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.40968E+07
He	1.63908E+09
Na	1.09073E+19
Mg	3.75792E+07
Al	1.10676E+22
Si	1.42481E+10
P	5.71010E+05
S	9.35628E+20
Cl	2.59706E+08
Ar	1.07265E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.89338E+06
As	1.13335E+16
Se	5.56079E+06
Br	3.54167E+15
Kr	2.54417E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	9.76185E+04
In	3.12104E-07
Sn	2.40646E+04
Sb	1.16227E+15

Te	1.33993E+06
I	3.78323E-04
Xe	2.25577E+05
Cs	3.34784E+04
Ba	2.08115E+17
La	2.44359E+05
Ce	1.17545E-02
Pr	4.00106E-03
Nd	1.64663E+02
Pm	4.28522E+03
Sm	1.88252E+15
Eu	1.10964E+07
Gd	1.52727E+04
Lu	0.00000E+00
Hf	1.28244E-03
Ta	1.17658E+03
W	7.69706E+14
Re	1.70217E+05
Hg	1.62885E-02
Tl	7.42307E-02
Pb	4.78079E+15
Bi	1.54940E+02
Th	-5.57745E-03
U	1.18888E+15
Np	1.08052E+05
Pu	2.40674E+06

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.8218E-02	1.7858E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	8.9289E-01	8.9289E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	5.5942E+10	6.2703E-18	2.9397E-05	2.2194E-06	1.1932E-02	3.2250E-13	3.4587E-09	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0341E+08	1.2408E-13	2.5162E-06	0.0000E+00	1.0030E+01	2.7109E-10	7.5987E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							

Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	9.5257E+08	7.2193E-15	8.9893E-07	5.4368E-03	7.6501E+00	2.0676E-10	2.5248E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							
Ga 71	4.0485E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.3648E-13	1.847787E+04	1.8775E-01	2.0433E+01	5.5225E-10	2.7616E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.2826E-02	2.3321E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01

10 (1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11 (2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12 (2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13 (3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14 (4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15 (5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.1660E-01	1.1660E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.40968E+07
He	1.63908E+09
Na	1.09073E+19
Mg	3.80123E+07
Al	1.10676E+22
Si	1.42485E+10
P	5.52673E+01
S	9.35628E+20
Cl	3.34948E+08
Ar	4.17308E+07
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.90535E+06
As	1.13335E+16
Se	5.67119E+06
Br	3.54167E+15
Kr	2.56608E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.12682E+05
In	0.00000E+00
Sn	2.53084E+04
Sb	1.16227E+15
Te	1.53157E+06
I	5.12701E-04
Xe	3.04571E+05
Cs	1.13935E+04
Ba	2.08115E+17
La	2.44616E+05
Ce	1.25219E-02
Pr	4.00813E-03
Nd	3.72072E+02
Pm	6.81159E+03
Sm	1.88252E+15
Eu	1.14912E+07
Gd	2.77721E+04
Lu	0.00000E+00
Hf	1.28246E-03
Ta	1.72469E+03
W	7.69706E+14
Re	1.83350E+05
Hg	1.47746E-02
Tl	7.57669E-02
Pb	4.78079E+15
Bi	1.55328E+02
Th	-5.32051E-03
U	1.18888E+15
Np	5.54030E-39
Pu	2.51547E+06
Totals:	4.41291E+22

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.571E+02	2.249E+03	6.079E-02	1.728E-04	1.003E-09	1.847787E+04

338.6 (d)	4.694E-08	8.695E+00	2.043E+01	5.522E-04	2.762E-05	4.365E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.249E+03	3.795E-04	1.728E-04	1.003E-09
338.6 (d)	2.043E+01	4.694E-08	2.762E-05	4.365E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.571E+05	4.268E-10	2.587E-05	1.518E+03
338.6 (d)	8.695E+03	1.857E-13	2.350E-07	1.877E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.571E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	8.695E+00	4.694E-08	1.857E-13	4.157E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2411E+03	6.0571E-08	1.7080E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3024E-13	1.847787E+04	1.8637E-01	1.8127E+01	4.8992E-10	2.6703E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2451E+03	6.0678E-08	1.7275E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3648E-13	1.847787E+04	1.8775E-01	2.0433E+01	5.5225E-10	2.7616E-05

Step : 4
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 3.07 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0523E+07	7.5481E-15	8.2322E-08	0.0000E+00	9.6489E-01	2.6078E-11	7.4223E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	7.4589E+10	8.3604E-18	3.9196E-05	2.9592E-06	1.5910E-02	4.3000E-13	4.6115E-09	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6739E+08	5.2908E-13	1.0730E-05	0.0000E+00	4.2771E+01	1.1560E-09	3.2402E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.4418E+09	1.0927E-14	1.3606E-06	8.2291E-03	1.1579E+01	3.1295E-10	3.8215E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59
Co 59	1.4406E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								

Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 113 Nuclides.

Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2515E+03	6.0852E-08	1.7362E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 3.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.87958E+07
He	2.18545E+09
Na	1.09073E+19
Mg	5.02500E+07
Al	1.10676E+22
Si	1.89976E+10
P	5.71010E+05
S	9.35628E+20
Cl	3.71621E+08
Ar	1.21112E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52850E+06
As	1.13335E+16
Se	7.45118E+06
Br	3.54167E+15
Kr	3.39953E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.35422E+05
In	3.12104E-07
Sn	3.25007E+04
Sb	1.16227E+15
Te	1.85142E+06
I	5.49295E-04
Xe	3.27101E+05
Cs	3.92126E+04
Ba	2.08115E+17
La	3.25898E+05
Ce	1.59285E-02
Pr	5.33711E-03
Nd	3.91649E+02
Pm	7.02323E+03
Sm	1.88252E+15
Eu	1.49235E+07

Gd	2.88754E+04
Lu	0.00000E+00
Hf	1.70993E-03
Ta	1.78107E+03
W	7.69706E+14
Re	2.31494E+05
Hg	2.12103E-02
Tl	9.94996E-02
Pb	4.78079E+15
Bi	2.06715E+02
Th	-7.25197E-03
U	1.18888E+15
Np	1.08052E+05
Pu	3.24520E+06

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0138E-01	1.8433E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	9.2166E-01	9.2166E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.4589E+10	8.3604E-18	3.9195E-05	2.9592E-06	1.5910E-02	4.2999E-13	4.6115E-09	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0494E+08	1.2501E-13	2.5351E-06	0.0000E+00	1.0106E+01	2.7312E-10	7.6557E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.1399E+09	8.6389E-15	1.0757E-06	6.5058E-03	9.1544E+00	2.4742E-10	3.0212E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							

Ni 60	1.1378E+16
Ni 61	4.9463E+14
Ni 62	1.5767E+15
Ni 64	4.0178E+14
Cu 63	2.0027E+16
Cu 65	8.9265E+15
Zn 64	2.2091E+16
Zn 66	1.2682E+16
Zn 67	1.8637E+15
Zn 68	8.5456E+15
Zn 70	2.7273E+14
Ga 69	6.1006E+15
Ga 71	4.0485E+15

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.3884E-13	1.847787E+04	1.8882E-01	2.2017E+01	5.9504E-10	2.8170E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.5328E-02	2.7869E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09

5.5737E-05 6.1667E-06 6.1667E-06 2.4127E-04 1.3935E-01 1.3935E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.87958E+07
He	2.18545E+09
Na	1.09073E+19
Mg	5.06830E+07
Al	1.10676E+22
Si	1.89980E+10
P	5.52673E+01
S	9.35628E+20
Cl	4.46863E+08
Ar	5.55465E+07
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.54047E+06
As	1.13335E+16
Se	7.56158E+06
Br	3.54167E+15
Kr	3.42144E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50490E+05
In	0.00000E+00
Sn	3.37445E+04
Sb	1.16227E+15
Te	2.04306E+06
I	6.83673E-04
Xe	4.06094E+05
Cs	1.86645E+04
Ba	2.08115E+17
La	3.26155E+05
Ce	1.66959E-02
Pr	5.34418E-03
Nd	7.00136E+02
Pm	9.62089E+03
Sm	1.88252E+15
Eu	1.53160E+07
Gd	4.44839E+04
Lu	0.00000E+00
Hf	1.70995E-03
Ta	2.33009E+03
W	7.69706E+14
Re	2.44627E+05
Hg	1.96966E-02
Tl	1.01047E-01
Pb	4.78079E+15
Bi	2.07103E+02
Th	-6.90939E-03
U	1.18888E+15
Np	5.54030E-39
Pu	3.35391E+06
Totals:	4.41291E+22

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.581E+02	2.252E+03	6.085E-02	1.736E-04	1.003E-09	1.847787E+04
338.6 (d)	4.720E-08	9.369E+00	2.202E+01	5.950E-04	2.817E-05	4.388E-13	1.847787E+04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.252E+03	3.795E-04	1.736E-04	1.003E-09
338.6 (d)	2.202E+01	4.720E-08	2.817E-05	4.388E-13

AJBRF Reactor

AJBRF Soil (Side) Flux

AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.581E+05	4.268E-10	2.589E-05	1.518E+03
338.6 (d)	9.369E+03	1.867E-13	2.532E-07	1.888E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.581E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	9.369E+00	4.720E-08	1.867E-13	4.179E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2411E+03	6.0571E-08	1.7080E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3024E-13	1.847787E+04	1.8637E-01	1.8127E+01	4.8992E-10	2.6703E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2451E+03	6.0678E-08	1.7275E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3648E-13	1.847787E+04	1.8775E-01	2.0433E+01	5.5225E-10	2.7616E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2473E+03	6.0738E-08	1.7362E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 4.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3884E-13	1.847787E+04	1.8882E-01	2.2017E+01	5.9504E-10	2.8170E-05

Step : 5
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 4.07 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0524E+07	7.5482E-15	8.2323E-08	0.0000E+00	9.6490E-01	2.6078E-11	7.4223E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03 (My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	9.3236E+10	1.0451E-17	4.8994E-05	3.6990E-06	1.9887E-02	5.3749E-13	5.7644E-09	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6875E+08	5.2991E-13	1.0746E-05	0.0000E+00	4.2838E+01	1.1578E-09	3.2453E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11 (My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.6257E+09	1.2321E-14	1.5342E-06	9.2788E-03	1.3056E+01	3.5287E-10	4.3090E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59
Co 59	1.4406E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04 (My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								

Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 113 Nuclides.

Totals: 4.4129E+22 1.0029E-09 1.847787E+04 1.5180E+03 2.2531E+03 6.0894E-08 1.7416E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 4.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	7.34947E+07
He	2.73181E+09
Na	1.09073E+19
Mg	6.29208E+07
Al	1.10676E+22
Si	2.37471E+10
P	5.71010E+05
S	9.35628E+20
Cl	4.83536E+08
Ar	1.34925E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	3.16361E+06
As	1.13335E+16
Se	9.34158E+06
Br	3.54167E+15
Kr	4.25489E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.73230E+05
In	3.12104E-07
Sn	4.09368E+04
Sb	1.16227E+15
Te	2.36291E+06
I	7.20267E-04
Xe	4.28624E+05
Cs	4.65994E+04
Ba	2.08115E+17
La	4.07437E+05
Ce	2.01025E-02
Pr	6.67315E-03

Nd	7.27652E+02
Pm	9.83365E+03
Sm	1.88252E+15
Eu	1.87481E+07
Gd	4.58123E+04
Lu	0.00000E+00
Hf	2.13741E-03
Ta	2.38649E+03
W	7.69706E+14
Re	2.92770E+05
Hg	2.61324E-02
Tl	1.24780E-01
Pb	4.78079E+15
Bi	2.58491E+02
Th	-8.83419E-03
U	1.18888E+15
Np	1.08052E+05
Pu	4.08364E+06

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0384E-01	1.8880E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	9.4399E-01	9.4399E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	9.3235E+10	1.0450E-17	4.8994E-05	3.6990E-06	1.9887E-02	5.3749E-13	5.7644E-09	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0526E+08	1.2520E-13	2.5391E-06	0.0000E+00	1.0121E+01	2.7355E-10	7.6678E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.2853E+09	9.7409E-15	1.2129E-06	7.3357E-03	1.0322E+01	2.7898E-10	3.4066E-06	Fe 55
Fe 56	2.2412E+21							

Fe 57	5.1785E+19
Fe 58	6.8395E+18
Co 59	1.4406E+16
Ni 58	2.9537E+16
Ni 60	1.1378E+16
Ni 61	4.9463E+14
Ni 62	1.5767E+15
Ni 64	4.0178E+14
Cu 63	2.0027E+16
Cu 65	8.9265E+15
Zn 64	2.2091E+16
Zn 66	1.2682E+16
Zn 67	1.8637E+15
Zn 68	8.5456E+15
Zn 70	2.7273E+14
Ga 69	6.1006E+15
Ga 71	4.0485E+15

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4014E-13	1.847787E+04	1.8965E-01	2.3204E+01	6.2714E-10	2.8569E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.7271E-02	3.1401E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)

SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.5700E-01	1.5700E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	7.34947E+07
He	2.73181E+09
Na	1.09073E+19
Mg	6.33538E+07
Al	1.10676E+22
Si	2.37475E+10
P	5.52673E+01
S	9.35628E+20
Cl	5.58779E+08
Ar	6.93283E+07
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	3.17559E+06
As	1.13335E+16
Se	9.45198E+06
Br	3.54167E+15
Kr	4.27680E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.88302E+05
In	0.00000E+00
Sn	4.21806E+04
Sb	1.16227E+15
Te	2.55455E+06
I	8.54645E-04
Xe	5.07618E+05
Cs	2.74907E+04
Ba	2.08115E+17
La	4.07694E+05
Ce	2.08699E-02
Pr	6.68022E-03
Nd	1.13799E+03
Pm	1.24113E+04
Sm	1.88252E+15
Eu	1.91388E+07
Gd	6.41160E+04
Lu	0.00000E+00
Hf	2.13744E-03
Ta	2.93562E+03
W	7.69706E+14
Re	3.05904E+05
Hg	2.46188E-02
Tl	1.26340E-01
Pb	4.78079E+15
Bi	2.58879E+02
Th	-8.40596E-03
U	1.18888E+15
Np	5.54030E-39
Pu	4.19233E+06
Totals:	4.41291E+22

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.588E+02	2.253E+03	6.089E-02	1.742E-04	1.003E-09	1.847787E+04
338.6 (d)	4.741E-08	9.874E+00	2.320E+01	6.271E-04	2.857E-05	4.401E-13	1.847787E+04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

For a volume of 1.0000E+00(cm3) of NBS Concrete Sl :

Time	Becquerel	Sv/h	ALI	Watt

zero	2.253E+03	3.795E-04	1.742E-04	1.003E-09
338.6 (d)	2.320E+01	4.741E-08	2.857E-05	4.401E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.588E+05	4.268E-10	2.591E-05	1.518E+03
338.6 (d)	9.874E+03	1.873E-13	2.669E-07	1.896E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.588E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	9.874E+00	4.741E-08	1.873E-13	4.195E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2411E+03	6.0571E-08	1.7080E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3024E-13	1.847787E+04	1.8637E-01	1.8127E+01	4.8992E-10	2.6703E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2451E+03	6.0678E-08	1.7275E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3648E-13	1.847787E+04	1.8775E-01	2.0433E+01	5.5225E-10	2.7616E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2473E+03	6.0738E-08	1.7362E-04

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        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :       4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05


Step :   5

Elapsed Time    :       4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :       5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05


Step :   6
    AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time    :       5.07 (y)          Cooling Time 0.

Nuclide      N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23      1.0907E+19
Na 24      4.3305E+05   4.1691E-12   3.2444E-07   9.7660E+00   5.5646E+00   1.5040E-10   2.3883E-06   1.498E+01 (h)   Na 24
Na 24m1    1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27      1.1068E+22
Al 28      3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
 S 32      8.8903E+20
 S 33      7.0172E+18
 S 34      3.9390E+19
 S 35      1.0524E+07   7.5482E-15   8.2323E-08   0.0000E+00   9.6490E-01   2.6078E-11   7.4223E-07   8.750E+01 (d)    S 35
 S 36      1.8713E+17
Ar 37      6.5520E+07   6.4391E-15   2.8118E-08   2.0654E-03   1.5004E+01   4.0551E-10   1.2608E-06   3.503E+01 (d)   Ar 37
 K 39      1.2658E+21
 K 40      1.5880E+17   2.9639E-13   1.7272E+04   1.8228E-01   2.7250E+00   7.3649E-11   1.6926E-05   1.280E+03(My)    K 40
 K 41      9.1347E+19
 K 42      1.3033E+07   5.5665E-11   3.5775E-06   2.5576E+01   2.0279E+02   5.4807E-09   8.7033E-05   1.237E+01 (h)    K 42
Ca 40      2.7445E+22
Ca 41      1.1188E+11   1.2541E-17   5.8793E-05   4.4388E-06   2.3865E-02   6.4499E-13   6.9173E-09   1.030E+05 (y)   Ca 41
Ca 42      1.8317E+20
Ca 43      3.8219E+19
Ca 44      5.9056E+20
Ca 45      8.6904E+08   5.3008E-13   1.0750E-05   0.0000E+00   4.2852E+01   1.1582E-09   3.2464E-05   1.627E+02 (d)   Ca 45
Ca 46      1.1324E+18
Ca 47      2.5711E+05   1.0232E-13   5.7873E-08   2.0512E-01   4.5458E-01   1.2286E-11   7.2733E-07   4.538E+00 (d)   Ca 47
Ca 48      5.2941E+19
Ca 49      2.2915E+04   1.9634E-11   1.4818E-08   4.0919E+01   3.0362E+01   8.2060E-10   3.9482E-06   8.719E+00 (m)   Ca 49
Sc 45      1.2591E+16
Sc 47      1.8220E+05   1.8972E-14   7.9117E-09   2.0179E-02   4.3691E-01   1.1808E-11   2.3617E-07   3.346E+00 (d)   Sc 47
Sc 49      1.5031E+05   3.9817E-12   1.9711E-08   1.2920E-02   3.0362E+01   8.2060E-10   2.4887E-06   5.719E+01 (m)   Sc 49
Ti 46      2.5495E+17
Ti 47      2.2992E+17
Ti 48      2.2782E+18
Ti 49      1.6719E+17
Ti 50      1.6008E+17
 V 50      2.2221E+14   5.7258E-24   3.8824E+01   1.5176E-11   3.2771E-11   8.8571E-22   1.6064E-16   1.489E+11(My)    V 50
 V 51      8.8661E+16
 V 52      9.2658E+01   1.1506E-13   3.7298E-11   1.7618E-01   2.8585E-01   7.7256E-12   4.0035E-09   3.745E+00 (m)    V 52
Cr 50      3.1921E+15
Cr 52      6.1558E+16
Cr 53      6.9793E+15
Cr 54      1.7375E+15
Mn 55      3.2198E+17
Mn 56      7.7761E+04   2.3479E-12   3.1448E-08   4.2015E+00   5.8057E+00   1.5691E-10   1.4514E-06   2.579E+00 (h)   Mn 56
Fe 54      1.4290E+20
Fe 55      1.7685E+09   1.3403E-14   1.6689E-06   1.0094E-02   1.4203E+01   3.8386E-10   4.6874E-06   2.735E+00 (y)   Fe 55
Fe 56      2.2412E+21
Fe 57      5.1785E+19
Fe 58      6.8395E+18
Fe 59      2.3192E+07   8.7561E-13   4.8564E-06   2.1161E+00   4.1816E+00   1.1302E-10   7.5208E-06   4.450E+01 (d)   Fe 59
Co 59      1.4406E+16
    AJBRF Reactor

Nuclide      N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Co 60m1    6.2401E+02   7.0265E-15   6.3704E-12   2.0292E-03   6.8829E-01   1.8602E-11   1.1706E-09   1.047E+01 (m)   Co 60m1
Ni 58      2.9537E+16
Ni 60      1.1378E+16
Ni 61      4.9463E+14
Ni 62      1.5767E+15
Ni 64      4.0178E+14
Cu 63      2.0027E+16
Cu 65      8.9265E+15
Zn 64      2.2091E+16
Zn 66      1.2682E+16
Zn 67      1.8637E+15
Zn 68      8.5456E+15
Zn 70      2.7273E+14
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Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239
here are	113 Nuclides.								
Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2542E+03	6.0925E-08	1.7455E-04		

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 5.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	8.81937E+07
He	3.27817E+09
Na	1.09073E+19
Mg	7.55915E+07
Al	1.10676E+22
Si	2.84966E+10
P	5.71010E+05
S	9.35628E+20
Cl	5.95452E+08
Ar	1.48704E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	3.79873E+06
As	1.13335E+16

Se	1.12320E+07
Br	3.54167E+15
Kr	5.11024E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	2.11043E+05
In	3.12104E-07
Sn	4.93729E+04
Sb	1.16227E+15
Te	2.87440E+06
I	8.91239E-04
Xe	5.30148E+05
Cs	5.55339E+04
Ba	2.08115E+17
La	4.88975E+05
Ce	2.42764E-02
Pr	8.00920E-03
Nd	1.17339E+03
Pm	1.26205E+04
Sm	1.88252E+15
Eu	2.25708E+07
Gd	6.56395E+04
Lu	0.00000E+00
Hf	2.56490E-03
Ta	2.99203E+03
W	7.69706E+14
Re	3.54047E+05
Hg	3.10546E-02
Tl	1.50075E-01
Pb	4.78079E+15
Bi	3.10267E+02
Th	-1.03241E-02
U	1.18888E+15
Np	1.08052E+05
Pu	4.92206E+06

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0575E-01	1.9227E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	9.6133E-01	9.6133E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	1.1188E+11	1.2540E-17	5.8793E-05	4.4388E-06	2.3864E-02	6.4499E-13	6.9172E-09	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							

Ca 44	5.9056E+20							
Ca 45	2.0533E+08	1.2524E-13	2.5399E-06	0.0000E+00	1.0125E+01	2.7364E-10	7.6703E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.3981E+09	1.0596E-14	1.3194E-06	7.9799E-03	1.1229E+01	3.0347E-10	3.7058E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							
Ga 71	4.0485E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4104E-13	1.847787E+04	1.9029E-01	2.4118E+01	6.5184E-10	2.8872E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.8779E-02	3.4143E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.7072E-01	1.7072E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	8.81937E+07
He	3.27817E+09
Na	1.09073E+19
Mg	7.60246E+07
Al	1.10676E+22
Si	2.84970E+10
P	5.52673E+01
S	9.35628E+20
Cl	6.70695E+08
Ar	8.30766E+07
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	3.81070E+06
As	1.13335E+16
Se	1.13424E+07
Br	3.54167E+15
Kr	5.13216E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	2.26120E+05
In	0.00000E+00
Sn	5.06167E+04
Sb	1.16227E+15
Te	3.06604E+06
I	1.02562E-03
Xe	6.09141E+05
Cs	3.77734E+04
Ba	2.08115E+17
La	4.89233E+05
Ce	2.50438E-02
Pr	8.01627E-03
Nd	1.68388E+03
Pm	1.51370E+04
Sm	1.88252E+15
Eu	2.29600E+07
Gd	8.62791E+04
Lu	0.00000E+00
Hf	2.56493E-03
Ta	3.54117E+03
W	7.69706E+14
Re	3.67181E+05
Hg	2.95411E-02
Tl	1.51648E-01
Pb	4.78079E+15

Bi	3.10655E+02
Th	-9.81022E-03
U	1.18888E+15
Np	5.54030E-39
Pu	5.03073E+06
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.592E+02	2.254E+03	6.093E-02	1.746E-04	1.003E-09	1.847787E+04
338.6 (d)	4.757E-08	1.026E+01	2.412E+01	6.518E-04	2.887E-05	4.410E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete Sl :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.254E+03	3.795E-04	1.746E-04	1.003E-09
338.6 (d)	2.412E+01	4.757E-08	2.887E-05	4.410E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.592E+05	4.268E-10	2.593E-05	1.518E+03
338.6 (d)	1.026E+04	1.877E-13	2.774E-07	1.903E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.592E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.026E+01	4.757E-08	1.877E-13	4.208E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2411E+03	6.0571E-08	1.7080E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3024E-13	1.847787E+04	1.8637E-01	1.8127E+01	4.8992E-10	2.6703E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2451E+03	6.0678E-08	1.7275E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3648E-13	1.847787E+04	1.8775E-01	2.0433E+01	5.5225E-10	2.7616E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2473E+03	6.0738E-08	1.7362E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 4.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3884E-13	1.847787E+04	1.8882E-01	2.2017E+01	5.9504E-10	2.8170E-05

Step : 5

Elapsed Time : 4.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2489E+03	6.0780E-08	1.7416E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 5.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4014E-13	1.847787E+04	1.8965E-01	2.3204E+01	6.2714E-10	2.8569E-05

Step : 6

Elapsed Time : 5.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2500E+03	6.0812E-08	1.7455E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4104E-13	1.847787E+04	1.9029E-01	2.4118E+01	6.5184E-10	2.8872E-05

Step : 7
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 6.07 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0524E+07	7.5482E-15	8.2323E-08	0.0000E+00	9.6490E-01	2.6078E-11	7.4223E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03 (My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	1.3053E+11	1.4631E-17	6.8592E-05	5.1786E-06	2.7842E-02	7.5249E-13	8.0701E-09	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6910E+08	5.3012E-13	1.0751E-05	0.0000E+00	4.2855E+01	1.1583E-09	3.2466E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								

Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.8793E+09	1.4243E-14	1.7735E-06	1.0726E-02	1.5093E+01	4.0791E-10	4.9811E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59
Co 59	1.4406E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239
here are	113 Nuclides.								

Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2551E+03	6.0949E-08	1.7485E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 6.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.02893E+08
He	3.82453E+09
Na	1.09073E+19
Mg	8.82623E+07
Al	1.10676E+22
Si	3.32462E+10
P	5.71010E+05
S	9.35628E+20
Cl	7.07367E+08
Ar	1.62450E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	4.43385E+06
As	1.13335E+16
Se	1.31224E+07
Br	3.54167E+15
Kr	5.96560E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	2.48861E+05
In	3.12104E-07
Sn	5.78090E+04
Sb	1.16227E+15
Te	3.38589E+06
I	1.06221E-03
Xe	6.31671E+05
Cs	6.59182E+04
Ba	2.08115E+17
La	5.70514E+05
Ce	2.84504E-02
Pr	9.34524E-03
Nd	1.72697E+03
Pm	1.53405E+04
Sm	1.88252E+15
Eu	2.63918E+07
Gd	8.79717E+04
Lu	0.00000E+00
Hf	2.99239E-03
Ta	3.59758E+03
W	7.69706E+14
Re	4.15324E+05
Hg	3.59769E-02
Tl	1.75384E-01
Pb	4.78079E+15
Bi	3.62043E+02
Th	-1.17217E-02
U	1.18888E+15
Np	1.08052E+05
Pu	5.76045E+06

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0723E-01	1.9496E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00

9 (1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10 (1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11 (2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12 (2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13 (3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14 (4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15 (5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	9.7479E-01	9.7479E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	1.3053E+11	1.4631E-17	6.8591E-05	5.1786E-06	2.7842E-02	7.5248E-13	8.0701E-09	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0534E+08	1.2525E-13	2.5401E-06	0.0000E+00	1.0126E+01	2.7366E-10	7.6708E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.4858E+09	1.1260E-14	1.4021E-06	8.4800E-03	1.1932E+01	3.2249E-10	3.9380E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							
Ga 71	4.0485E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							

Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4171E-13	1.847787E+04	1.9080E-01	2.4826E+01	6.7098E-10	2.9106E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.9950E-02	3.6272E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.8136E-01	1.8136E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.02893E+08
He	3.82453E+09
Na	1.09073E+19
Mg	8.86953E+07
Al	1.10676E+22
Si	3.32465E+10
P	5.52673E+01
S	9.35628E+20
Cl	7.82610E+08
Ar	9.67912E+07
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16

Ga	1.01490E+16
Ge	4.44582E+06
As	1.13335E+16
Se	1.32328E+07
Br	3.54167E+15
Kr	5.98751E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	2.63943E+05
In	0.00000E+00
Sn	5.90529E+04
Sb	1.16227E+15
Te	3.57753E+06
I	1.19659E-03
Xe	7.10665E+05
Cs	4.94203E+04
Ba	2.08115E+17
La	5.70772E+05
Ce	2.92178E-02
Pr	9.35232E-03
Nd	2.33483E+03
Pm	1.77781E+04
Sm	1.88252E+15
Eu	2.67798E+07
Gd	1.10636E+05
Lu	0.00000E+00
Hf	2.99242E-03
Ta	4.14672E+03
W	7.69706E+14
Re	4.28457E+05
Hg	3.44636E-02
Tl	1.76971E-01
Pb	4.78079E+15
Bi	3.62431E+02
Th	-1.11222E-02
U	1.18888E+15
Np	5.54030E-39
Pu	5.86910E+06
Totals:	4.41291E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.596E+02	2.255E+03	6.095E-02	1.748E-04	1.003E-09	1.847787E+04
338.6 (d)	4.770E-08	1.056E+01	2.483E+01	6.710E-04	2.911E-05	4.417E-13	1.847787E+04

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.255E+03	3.795E-04	1.748E-04	1.003E-09
338.6 (d)	2.483E+01	4.770E-08	2.911E-05	4.417E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.596E+05	4.268E-10	2.594E-05	1.518E+03
338.6 (d)	1.056E+04	1.880E-13	2.855E-07	1.908E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.596E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.056E+01	4.770E-08	1.880E-13	4.218E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	

```
Step    6 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      5.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.00 (y)

Step    7 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      6.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.99 (y)

Step    8 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      7.07 (y)        Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :     26.35 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :   2

Elapsed Time   :      1.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :      2.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :      3.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05
```

Step : 7

Elapsed Time : 6.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2509E+03	6.0836E-08	1.7485E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4171E-13	1.847787E+04	1.9080E-01	2.4826E+01	6.7098E-10	2.9106E-05

Step : 8
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 7.07 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0524E+07	7.5482E-15	8.2323E-08	0.0000E+00	9.6490E-01	2.6078E-11	7.4223E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	1.4918E+11	1.6721E-17	7.8390E-05	5.9184E-06	3.1819E-02	8.5998E-13	9.2230E-09	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6911E+08	5.3013E-13	1.0751E-05	0.0000E+00	4.2856E+01	1.1583E-09	3.2467E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.9653E+09	1.4895E-14	1.8547E-06	1.1217E-02	1.5784E+01	4.2659E-10	5.2091E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59
Co 59	1.4406E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								

Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 113 Nuclides.

Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2558E+03	6.0968E-08	1.7508E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 7.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.17592E+08
He	4.37089E+09
Na	1.09073E+19
Mg	1.00933E+08
Al	1.10676E+22
Si	3.79957E+10
P	5.71010E+05
S	9.35628E+20
Cl	8.19283E+08
Ar	1.76162E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	5.06896E+06
As	1.13335E+16
Se	1.50128E+07
Br	3.54167E+15
Kr	6.82096E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16

Nb	4.56952E+15
Mo	2.86684E+05
In	3.12104E-07
Sn	6.62452E+04
Sb	1.16227E+15
Te	3.89739E+06
I	1.23318E-03
Xe	7.33195E+05
Cs	7.76602E+04
Ba	2.08115E+17
La	6.52053E+05
Ce	3.26244E-02
Pr	1.06813E-02
Nd	2.38537E+03
Pm	1.79751E+04
Sm	1.88252E+15
Eu	3.02116E+07
Gd	1.12475E+05
Lu	0.00000E+00
Hf	3.41988E-03
Ta	4.20313E+03
W	7.69706E+14
Re	4.76601E+05
Hg	4.08994E-02
Tl	2.00708E-01
Pb	4.78079E+15
Bi	4.13819E+02
Th	-1.30270E-02
U	1.18888E+15
Np	1.08052E+05
Pu	6.59882E+06

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0838E-01	1.9705E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	9.8524E-01	9.8524E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	1.4918E+11	1.6721E-17	7.8390E-05	5.9183E-06	3.1819E-02	8.5997E-13	9.2229E-09	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0535E+08	1.2525E-13	2.5401E-06	0.0000E+00	1.0126E+01	2.7367E-10	7.6710E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							

Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.5538E+09	1.1776E-14	1.4663E-06	8.8681E-03	1.2478E+01	3.3725E-10	4.1183E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							
Ga 71	4.0485E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4223E-13	1.847787E+04	1.9118E-01	2.5377E+01	6.8586E-10	2.9287E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.0859E-02	3.7926E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05

5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.8963E-01	1.8963E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.17592E+08
He	4.37089E+09
Na	1.09073E+19
Mg	1.01366E+08
Al	1.10676E+22
Si	3.79960E+10
P	5.52673E+01
S	9.35628E+20
Cl	8.94526E+08
Ar	1.10472E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	5.08094E+06
As	1.13335E+16
Se	1.51232E+07
Br	3.54167E+15
Kr	6.84287E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	3.01770E+05
In	0.00000E+00
Sn	6.74890E+04
Sb	1.16227E+15
Te	4.08903E+06
I	1.36756E-03
Xe	8.12188E+05
Cs	6.23450E+04
Ba	2.08115E+17
La	6.52311E+05
Ce	3.33918E-02
Pr	1.06884E-02
Nd	3.08735E+03
Pm	2.03273E+04
Sm	1.88252E+15
Eu	3.05987E+07
Gd	1.36895E+05
Lu	0.00000E+00
Hf	3.41991E-03
Ta	4.75227E+03
W	7.69706E+14
Re	4.89734E+05
Hg	3.93861E-02
Tl	2.02312E-01
Pb	4.78079E+15
Bi	4.14207E+02
Th	-1.23418E-02
U	1.18888E+15
Np	5.54030E-39
Pu	6.70744E+06
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.599E+02	2.256E+03	6.097E-02	1.751E-04	1.003E-09	1.847787E+04
338.6 (d)	4.780E-08	1.080E+01	2.538E+01	6.859E-04	2.929E-05	4.422E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.256E+03	3.795E-04	1.751E-04	1.003E-09
338.6 (d)	2.538E+01	4.780E-08	2.929E-05	4.422E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.599E+05	4.268E-10	2.594E-05	1.518E+03
338.6 (d)	1.080E+04	1.882E-13	2.919E-07	1.912E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.599E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.080E+01	4.780E-08	1.882E-13	4.226E-01

			Elapsed Time.	
Step 1 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2411E+03	6.0571E-08	1.7080E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3024E-13	1.847787E+04	1.8637E-01	1.8127E+01	4.8992E-10	2.6703E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2451E+03	6.0678E-08	1.7275E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3648E-13	1.847787E+04	1.8775E-01	2.0433E+01	5.5225E-10	2.7616E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2473E+03	6.0738E-08	1.7362E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 4.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3884E-13	1.847787E+04	1.8882E-01	2.2017E+01	5.9504E-10	2.8170E-05

Step : 5

Elapsed Time : 4.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2489E+03	6.0780E-08	1.7416E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 5.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4014E-13	1.847787E+04	1.8965E-01	2.3204E+01	6.2714E-10	2.8569E-05

Step : 6

Elapsed Time : 5.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2500E+03	6.0812E-08	1.7455E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4104E-13	1.847787E+04	1.9029E-01	2.4118E+01	6.5184E-10	2.8872E-05

Step : 7

Elapsed Time : 6.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2509E+03	6.0836E-08	1.7485E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4171E-13	1.847787E+04	1.9080E-01	2.4826E+01	6.7098E-10	2.9106E-05

Step : 8

Elapsed Time : 7.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2516E+03	6.0855E-08	1.7508E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 7.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4223E-13	1.847787E+04	1.9118E-01	2.5377E+01	6.8586E-10	2.9287E-05

Step : 9
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 8.07 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28

S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0524E+07	7.5482E-15	8.2323E-08	0.0000E+00	9.6490E-01	2.6078E-11	7.4223E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	1.6782E+11	1.8811E-17	8.8189E-05	6.6582E-06	3.5797E-02	9.6747E-13	1.0376E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6911E+08	5.3013E-13	1.0751E-05	0.0000E+00	4.2856E+01	1.1583E-09	3.2467E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.0321E+09	1.5401E-14	1.9177E-06	1.1598E-02	1.6320E+01	4.4108E-10	5.3861E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59
Co 59	1.4406E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								

Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 113 Nuclides.

Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2564E+03	6.0983E-08	1.7526E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 8.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.32291E+08
He	4.91725E+09
Na	1.09073E+19
Mg	1.13604E+08
Al	1.10676E+22
Si	4.27452E+10
P	5.71010E+05
S	9.35628E+20
Cl	9.31199E+08
Ar	1.89841E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	5.70408E+06
As	1.13335E+16
Se	1.69032E+07
Br	3.54167E+15
Kr	7.67631E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	3.24511E+05
In	3.12104E-07
Sn	7.46813E+04
Sb	1.16227E+15
Te	4.40888E+06
I	1.40415E-03
Xe	8.34718E+05
Cs	9.06739E+04
Ba	2.08115E+17
La	7.33592E+05
Ce	3.67984E-02
Pr	1.20173E-02
Nd	3.14509E+03
Pm	2.05177E+04
Sm	1.88252E+15
Eu	3.40304E+07
Gd	1.38861E+05
Lu	0.00000E+00
Hf	3.84737E-03
Ta	4.80868E+03
W	7.69706E+14
Re	5.37878E+05
Hg	4.58219E-02
Tl	2.26050E-01
Pb	4.78079E+15
Bi	4.65595E+02

Th	-1.42400E-02
U	1.18888E+15
Np	1.08052E+05
Pu	7.43716E+06

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0927E-01	1.9867E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	9.9336E-01	9.9336E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	1.6782E+11	1.8811E-17	8.8188E-05	6.6581E-06	3.5796E-02	9.6747E-13	1.0376E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0535E+08	1.2525E-13	2.5402E-06	0.0000E+00	1.0126E+01	2.7367E-10	7.6710E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.6066E+09	1.2176E-14	1.5161E-06	9.1695E-03	1.2902E+01	3.4871E-10	4.2582E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							

Zn 70	2.7273E+14							
Ga 69	6.1006E+15							
Ga 71	4.0485E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4263E-13	1.847787E+04	1.9149E-01	2.5805E+01	6.9742E-10	2.9428E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.1566E-02	3.9210E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.9605E-01	1.9605E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.32291E+08
He	4.91725E+09
Na	1.09073E+19
Mg	1.14037E+08
Al	1.10676E+22
Si	4.27455E+10
P	5.52673E+01
S	9.35628E+20
Cl	1.00644E+09
Ar	1.24120E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	5.71605E+06
As	1.13335E+16
Se	1.70136E+07
Br	3.54167E+15
Kr	7.69822E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	3.39602E+05
In	0.00000E+00
Sn	7.59251E+04
Sb	1.16227E+15
Te	4.60052E+06
I	1.53853E-03
Xe	9.13712E+05
Cs	7.64663E+04
Ba	2.08115E+17
La	7.33850E+05
Ce	3.75658E-02
Pr	1.20244E-02
Nd	3.93782E+03
Pm	2.27833E+04
Sm	1.88252E+15
Eu	3.44168E+07
Gd	1.64802E+05
Lu	0.00000E+00
Hf	3.84739E-03
Ta	5.35782E+03
W	7.69706E+14
Re	5.51011E+05
Hg	4.43087E-02
Tl	2.27669E-01
Pb	4.78079E+15
Bi	4.65983E+02
Th	-1.34691E-02
U	1.18888E+15
Np	5.54030E-39
Pu	7.54576E+06
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.602E+02	2.256E+03	6.098E-02	1.753E-04	1.003E-09	1.847787E+04
338.6 (d)	4.787E-08	1.098E+01	2.580E+01	6.974E-04	2.943E-05	4.426E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.256E+03	3.795E-04	1.753E-04	1.003E-09
338.6 (d)	2.580E+01	4.787E-08	2.943E-05	4.426E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.602E+05	4.268E-10	2.595E-05	1.518E+03
338.6 (d)	1.098E+04	1.884E-13	2.968E-07	1.915E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index

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  zero          9.602E+02    3.795E-04    4.268E-10    2.768E+03
338.6 (d)       1.098E+01    4.787E-08    1.884E-13    4.232E-01


                                                          Elapsed Time.

Step    1 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     26.35 (d)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    365.00 (d)

Step    2 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      1.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      2.00 (y)

Step    3 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      2.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      3.00 (y)

Step    4 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      3.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      4.00 (y)

Step    5 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      4.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      5.00 (y)

Step    6 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      5.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.00 (y)

Step    7 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      6.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.99 (y)

Step    8 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      7.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      7.99 (y)

Step    9 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      8.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      8.99 (y)

Step   10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      9.07 (y)        Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.
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Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10
     AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :      9.07 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     4.3305E+05   4.1691E-12   3.2444E-07   9.7660E+00   5.5646E+00   1.5040E-10   2.3883E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
 S 32     8.8903E+20
 S 33     7.0172E+18
 S 34     3.9390E+19
 S 35     1.0524E+07   7.5482E-15   8.2323E-08   0.0000E+00   9.6490E-01   2.6078E-11   7.4223E-07   8.750E+01 (d)    S 35
 S 36     1.8713E+17
Ar 37     6.5520E+07   6.4391E-15   2.8118E-08   2.0654E-03   1.5004E+01   4.0551E-10   1.2608E-06   3.503E+01 (d)   Ar 37
 K 39     1.2658E+21
 K 40     1.5880E+17   2.9639E-13   1.7272E+04   1.8228E-01   2.7250E+00   7.3649E-11   1.6926E-05   1.280E+03(My)    K 40
 K 41     9.1347E+19
 K 42     1.3033E+07   5.5665E-11   3.5775E-06   2.5576E+01   2.0279E+02   5.4807E-09   8.7033E-05   1.237E+01 (h)    K 42
Ca 40     2.7445E+22
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Ca 41	1.8647E+11	2.0901E-17	9.7987E-05	7.3979E-06	3.9774E-02	1.0750E-12	1.1529E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6912E+08	5.3013E-13	1.0751E-05	0.0000E+00	4.2856E+01	1.1583E-09	3.2467E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.0840E+09	1.5794E-14	1.9666E-06	1.1894E-02	1.6736E+01	4.5233E-10	5.5235E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59
Co 59	1.4406E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1376E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2

Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 113 Nuclides.

Totals: 4.4129E+22 1.0029E-09 1.847787E+04 1.5180E+03 2.2568E+03 6.0994E-08 1.7540E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 9.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.46989E+08
He	5.46361E+09
Na	1.09073E+19
Mg	1.26275E+08
Al	1.10676E+22
Si	4.74947E+10
P	5.71010E+05
S	9.35628E+20
Cl	1.04311E+09
Ar	2.03486E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	6.33920E+06
As	1.13335E+16
Se	1.87936E+07
Br	3.54167E+15
Kr	8.53166E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	3.62344E+05
In	3.12104E-07
Sn	8.31174E+04
Sb	1.16227E+15
Te	4.92037E+06
I	1.57513E-03
Xe	9.36242E+05
Cs	1.04879E+05
Ba	2.08115E+17
La	8.15131E+05
Ce	4.09723E-02
Pr	1.33534E-02
Nd	4.00248E+03
Pm	2.29669E+04
Sm	1.88252E+15
Eu	3.78484E+07
Gd	1.66879E+05
Lu	0.00000E+00
Hf	4.27485E-03
Ta	5.41423E+03
W	7.69706E+14
Re	5.99154E+05
Hg	5.07445E-02
Tl	2.51408E-01
Pb	4.78079E+15
Bi	5.17371E+02
Th	-1.53606E-02
U	1.18888E+15
Np	1.08052E+05
Pu	8.27548E+06

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0996E-01	1.9993E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	9.9967E-01	9.9967E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	1.8647E+11	2.0901E-17	9.7987E-05	7.3979E-06	3.9774E-02	1.0750E-12	1.1529E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0535E+08	1.2525E-13	2.5402E-06	0.0000E+00	1.0126E+01	2.7367E-10	7.6710E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.6476E+09	1.2486E-14	1.5548E-06	9.4034E-03	1.3232E+01	3.5761E-10	4.3668E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							
Ga 71	4.0485E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
As 75	1.1334E+16						
Br 79	1.7953E+15						

Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4295E-13	1.847787E+04	1.9172E-01	2.6138E+01	7.0643E-10	2.9538E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.2114E-02	4.0208E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.0104E-01	2.0104E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.46989E+08
He	5.46361E+09
Na	1.09073E+19
Mg	1.26708E+08
Al	1.10676E+22
Si	4.74950E+10
P	5.52673E+01
S	9.35628E+20

Cl	1.11836E+09
Ar	1.37735E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	6.35117E+06
As	1.13335E+16
Se	1.89040E+07
Br	3.54167E+15
Kr	8.55357E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	3.77439E+05
In	0.00000E+00
Sn	8.43612E+04
Sb	1.16227E+15
Te	5.11201E+06
I	1.70950E-03
Xe	1.01524E+06
Cs	9.17084E+04
Ba	2.08115E+17
La	8.15388E+05
Ce	4.17397E-02
Pr	1.33605E-02
Nd	4.88259E+03
Pm	2.51472E+04
Sm	1.88252E+15
Eu	3.82343E+07
Gd	1.94139E+05
Lu	0.00000E+00
Hf	4.27488E-03
Ta	5.96337E+03
W	7.69706E+14
Re	6.12288E+05
Hg	4.92314E-02
Tl	2.53044E-01
Pb	4.78079E+15
Bi	5.17759E+02
Th	-1.45042E-02
U	1.18888E+15
Np	5.54030E-39
Pu	8.38406E+06
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.603E+02	2.257E+03	6.099E-02	1.754E-04	1.003E-09	1.847787E+04
338.6 (d)	4.793E-08	1.112E+01	2.614E+01	7.064E-04	2.954E-05	4.429E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.257E+03	3.795E-04	1.754E-04	1.003E-09
338.6 (d)	2.614E+01	4.793E-08	2.954E-05	4.429E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.603E+05	4.268E-10	2.595E-05	1.518E+03
338.6 (d)	1.112E+04	1.885E-13	3.006E-07	1.917E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.603E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.112E+01	4.793E-08	1.885E-13	4.237E-01

Elapsed Time.

Step 1 : Activation of 2.27682E+06(s), i.e. 26.35 (d) 26.35 (d) Intervals : 2

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                Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)    365.00 (d)

Step    2 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      1.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      2.00 (y)

Step    3 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      2.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      3.00 (y)

Step    4 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      3.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      4.00 (y)

Step    5 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      4.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      5.00 (y)

Step    6 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      5.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      6.00 (y)

Step    7 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      6.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      6.99 (y)

Step    8 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      7.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      7.99 (y)

Step    9 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      8.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      8.99 (y)

Step   10 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      9.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      9.99 (y)

Step   11 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     10.06 (y)        Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5
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Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11
     AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     10.06 (y)          Cooling Time 0.

Nuclide     N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     4.3305E+05   4.1691E-12   3.2444E-07   9.7660E+00   5.5646E+00   1.5040E-10   2.3883E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28     4.7345E+10
 S 32     8.8903E+20
 S 33     7.0172E+18
 S 34     3.9390E+19
 S 35     1.0524E+07   7.5482E-15   8.2323E-08   0.0000E+00   9.6490E-01   2.6078E-11   7.4223E-07   8.750E+01 (d)    S 35
 S 36     1.8713E+17
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Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	2.0512E+11	2.2991E-17	1.0779E-04	8.1377E-06	4.3751E-02	1.1825E-12	1.2681E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6912E+08	5.3013E-13	1.0751E-05	0.0000E+00	4.2856E+01	1.1583E-09	3.2467E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.1242E+09	1.6099E-14	2.0046E-06	1.2124E-02	1.7060E+01	4.6107E-10	5.6302E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								

W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02 (My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03 (My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239
here are	114 Nuclides.								
Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2571E+03	6.1003E-08	1.7550E-04		

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 10.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.61688E+08
He	6.00997E+09
Na	1.09073E+19
Mg	1.38945E+08
Al	1.10676E+22
Si	5.22442E+10
P	5.71010E+05
S	9.35628E+20
Cl	1.15503E+09
Ar	2.17098E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	6.97431E+06
As	1.13335E+16
Se	2.06840E+07
Br	3.54167E+15
Kr	9.38701E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	4.00182E+05
In	3.12104E-07
Sn	9.15536E+04
Sb	1.16227E+15
Te	5.43186E+06
I	1.74610E-03
Xe	1.03777E+06
Cs	1.20199E+05
Ba	2.08115E+17
La	8.96670E+05
Ce	4.51463E-02
Pr	1.46894E-02
Nd	4.95393E+03
Pm	2.53242E+04
Sm	1.88252E+15
Eu	4.16659E+07
Gd	1.96310E+05
Lu	0.00000E+00
Hf	4.70234E-03
Ta	6.01978E+03
W	7.69706E+14
Re	6.60431E+05
Hg	5.56672E-02
Tl	2.76785E-01
Pb	4.78079E+15
Bi	5.69147E+02
Th	-1.63890E-02
U	1.18888E+15
Np	1.08052E+05
Pu	9.11378E+06

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1050E-01	2.0091E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	1.0046E+00	1.0046E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	4.7345E+10							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	2.0511E+11	2.2991E-17	1.0778E-04	8.1376E-06	4.3751E-02	1.1825E-12	1.2681E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0535E+08	1.2525E-13	2.5402E-06	0.0000E+00	1.0126E+01	2.7367E-10	7.6710E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.6794E+09	1.2728E-14	1.5848E-06	9.5850E-03	1.3487E+01	3.6451E-10	4.4512E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4319E-13	1.847787E+04	1.9190E-01	2.6397E+01	7.1344E-10	2.9623E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.2540E-02	4.0983E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.0491E-01	2.0491E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.61688E+08

He	6.00997E+09
Na	1.09073E+19
Mg	1.39378E+08
Al	1.10676E+22
Si	5.22445E+10
P	5.52673E+01
S	9.35628E+20
Cl	1.23027E+09
Ar	1.51316E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	6.98629E+06
As	1.13335E+16
Se	2.07944E+07
Br	3.54167E+15
Kr	9.40892E+06
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	4.15282E+05
In	0.00000E+00
Sn	9.27974E+04
Sb	1.16227E+15
Te	5.62350E+06
I	1.88048E-03
Xe	1.11676E+06
Cs	1.08000E+05
Ba	2.08115E+17
La	8.96927E+05
Ce	4.59137E-02
Pr	1.46965E-02
Nd	5.91812E+03
Pm	2.74213E+04
Sm	1.88252E+15
Eu	4.20515E+07
Gd	2.24713E+05
Lu	0.00000E+00
Hf	4.70237E-03
Ta	6.56892E+03
W	7.69706E+14
Re	6.73565E+05
Hg	5.41542E-02
Tl	2.78438E-01
Pb	4.78079E+15
Bi	5.69535E+02
Th	-1.54469E-02
U	1.18888E+15
Np	5.54030E-39
Pu	9.22234E+06
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.605E+02	2.257E+03	6.100E-02	1.755E-04	1.003E-09	1.847787E+04
338.6 (d)	4.798E-08	1.123E+01	2.640E+01	7.134E-04	2.962E-05	4.432E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.257E+03	3.795E-04	1.755E-04	1.003E-09
338.6 (d)	2.640E+01	4.798E-08	2.962E-05	4.432E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.605E+05	4.268E-10	2.596E-05	1.518E+03
338.6 (d)	1.123E+04	1.886E-13	3.036E-07	1.919E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.605E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.123E+01	4.798E-08	1.886E-13	4.240E-01

```
                                                                    Elapsed Time.

Step    1 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     26.35 (d)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    365.00 (d)

Step    2 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      1.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      2.00 (y)

Step    3 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      2.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      3.00 (y)

Step    4 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      3.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      4.00 (y)

Step    5 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      4.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      5.00 (y)

Step    6 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      5.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.00 (y)

Step    7 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      6.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.99 (y)

Step    8 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      7.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      7.99 (y)

Step    9 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      8.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      8.99 (y)

Step   10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      9.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      9.99 (y)

Step   11 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     10.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     10.99 (y)

Step   12 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     11.06 (y)        Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :       4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :       5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :       6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :       7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :       8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :       9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :      10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      10.99 (y)
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	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4319E-13	1.847787E+04	1.9190E-01	2.6397E+01	7.1344E-10	2.9623E-05

Step : 12
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 11.06 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24ml	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24ml
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	5.1649E+10								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0524E+07	7.5482E-15	8.2323E-08	0.0000E+00	9.6490E-01	2.6078E-11	7.4223E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	2.2376E+11	2.5081E-17	1.1758E-04	8.8775E-06	4.7728E-02	1.2900E-12	1.3834E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6912E+08	5.3013E-13	1.0751E-05	0.0000E+00	4.2856E+01	1.1583E-09	3.2467E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.1554E+09	1.6336E-14	2.0341E-06	1.2302E-02	1.7310E+01	4.6785E-10	5.7130E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60ml	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60ml
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								

Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239
here are	114 Nuclides.								
Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2574E+03	6.1010E-08	1.7559E-04		

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 11.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.76387E+08
He	6.55634E+09
Na	1.09073E+19
Mg	1.51616E+08
Al	1.10676E+22
Si	5.69937E+10
P	5.71010E+05
S	9.35628E+20
Cl	1.26695E+09
Ar	2.30677E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	7.60943E+06
As	1.13335E+16
Se	2.25744E+07
Br	3.54167E+15
Kr	1.02424E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	4.38024E+05
In	3.12104E-07
Sn	9.99897E+04
Sb	1.16227E+15
Te	5.94335E+06
I	1.91707E-03
Xe	1.13929E+06
Cs	1.36564E+05

Ba	2.08115E+17
La	9.78209E+05
Ce	4.93203E-02
Pr	1.60255E-02
Nd	5.99587E+03
Pm	2.75920E+04
Sm	1.88252E+15
Eu	4.54831E+07
Gd	2.26968E+05
Lu	0.00000E+00
Hf	5.12983E-03
Ta	6.62533E+03
W	7.69706E+14
Re	7.21708E+05
Hg	6.05900E-02
Tl	3.02180E-01
Pb	4.78079E+15
Bi	6.20922E+02
Th	-1.73250E-02
U	1.18888E+15
Np	1.08052E+05
Pu	9.95205E+06

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1092E-01	2.0167E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	1.0084E+00	1.0084E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	5.1649E+10							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	2.2376E+11	2.5080E-17	1.1758E-04	8.8774E-06	4.7728E-02	1.2899E-12	1.3834E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0535E+08	1.2525E-13	2.5402E-06	0.0000E+00	1.0126E+01	2.7367E-10	7.6710E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							

Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.7041E+09	1.2915E-14	1.6081E-06	9.7259E-03	1.3685E+01	3.6987E-10	4.5166E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4338E-13	1.847787E+04	1.9204E-01	2.6600E+01	7.1891E-10	2.9690E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.2872E-02	4.1585E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10

13 (3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14 (4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15 (5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.0792E-01	2.0792E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.76387E+08
He	6.55634E+09
Na	1.09073E+19
Mg	1.52049E+08
Al	1.10676E+22
Si	5.69940E+10
P	5.52673E+01
S	9.35628E+20
Cl	1.34219E+09
Ar	1.64864E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	7.62140E+06
As	1.13335E+16
Se	2.26848E+07
Br	3.54167E+15
Kr	1.02643E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	4.53129E+05
In	0.00000E+00
Sn	1.01234E+05
Sb	1.16227E+15
Te	6.13499E+06
I	2.05145E-03
Xe	1.21828E+06
Cs	1.25275E+05
Ba	2.08115E+17*
La	9.78466E+05
Ce	5.00877E-02
Pr	1.60325E-02
Nd	7.04093E+03
Pm	2.96087E+04
Sm	1.88252E+15
Eu	4.58684E+07
Gd	2.56361E+05
Lu	0.00000E+00
Hf	5.12986E-03
Ta	7.17447E+03
W	7.69706E+14
Re	7.34842E+05
Hg	5.90770E-02
Tl	3.03850E-01
Pb	4.78079E+15
Bi	6.21310E+02
Th	-1.62973E-02
U	1.18888E+15
Np	5.54030E-39
Pu	1.00606E+07
Totals:	4.41291E+22

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.606E+02	2.257E+03	6.101E-02	1.756E-04	1.003E-09	1.847787E+04
338.6 (d)	4.801E-08	1.132E+01	2.660E+01	7.189E-04	2.969E-05	4.434E-13	1.847787E+04

AJBRF Reactor

AJBRF Soil (Side) Flux

AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete Sl :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.257E+03	3.795E-04	1.756E-04	1.003E-09
338.6 (d)	2.660E+01	4.801E-08	2.969E-05	4.434E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.606E+05	4.268E-10	2.596E-05	1.518E+03
338.6 (d)	1.132E+04	1.887E-13	3.059E-07	1.920E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.606E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.132E+01	4.801E-08	1.887E-13	4.243E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2411E+03	6.0571E-08	1.7080E-04

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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time    :       2.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


 Step :   3

 Elapsed Time    :       2.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time    :       3.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05


 Step :   4

 Elapsed Time    :       3.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time    :       4.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05


 Step :   5

 Elapsed Time    :       4.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time    :       5.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05


 Step :   6

 Elapsed Time    :       5.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time    :       6.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05


 Step :   7

 Elapsed Time    :       6.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time    :       6.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05


 Step :   8

 Elapsed Time    :       7.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time    :       7.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05


 Step :   9

 Elapsed Time    :       8.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time    :       8.99 (y)
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	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4263E-13	1.847787E+04	1.9149E-01	2.5805E+01	6.9742E-10	2.9428E-05

Step : 10

Elapsed Time : 9.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2526E+03	6.0881E-08	1.7540E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 9.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4295E-13	1.847787E+04	1.9172E-01	2.6138E+01	7.0643E-10	2.9538E-05

Step : 11

Elapsed Time : 10.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2529E+03	6.0889E-08	1.7550E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 10.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4319E-13	1.847787E+04	1.9190E-01	2.6397E+01	7.1344E-10	2.9623E-05

Step : 12

Elapsed Time : 11.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2532E+03	6.0896E-08	1.7559E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 11.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4338E-13	1.847787E+04	1.9204E-01	2.6600E+01	7.1891E-10	2.9690E-05

Step : 13
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 12.06 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	5.5953E+10								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0524E+07	7.5482E-15	8.2323E-08	0.0000E+00	9.6490E-01	2.6078E-11	7.4223E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	2.4241E+11	2.7171E-17	1.2738E-04	9.6172E-06	5.1705E-02	1.3974E-12	1.4987E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6912E+08	5.3013E-13	1.0751E-05	0.0000E+00	4.2856E+01	1.1583E-09	3.2467E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								

Fe 55	2.1797E+09	1.6519E-14	2.0570E-06	1.2441E-02	1.7505E+01	4.7311E-10	5.7773E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2576E+03	6.1015E-08	1.7565E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 12.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.91086E+08
He	7.10270E+09

Na	1.09073E+19
Mg	1.64287E+08
Al	1.10676E+22
Si	6.17432E+10
P	5.71010E+05
S	9.35628E+20
Cl	1.37886E+09
Ar	2.44223E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	8.24455E+06
As	1.13335E+16
Se	2.44647E+07
Br	3.54167E+15
Kr	1.10977E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	4.75871E+05
In	3.12104E-07
Sn	1.08426E+05
Sb	1.16227E+15
Te	6.45485E+06
I	2.08804E-03
Xe	1.24081E+06
Cs	1.53908E+05
Ba	2.08115E+17
La	1.05975E+06
Ce	5.34943E-02
Pr	1.73615E-02
Nd	7.12486E+03
Pm	2.97732E+04
Sm	1.88252E+15
Eu	4.93000E+07
Gd	2.58688E+05
Lu	0.00000E+00
Hf	5.55732E-03
Ta	7.23088E+03
W	7.69706E+14
Re	7.82985E+05
Hg	6.55128E-02
Tl	3.27594E-01
Pb	4.78079E+15
Bi	6.72698E+02
Th	-1.81687E-02
U	1.18888E+15
Np	1.08052E+05
Pu	1.07903E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1125E-01	2.0227E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02

4.4103E+00 4.3264E-01 4.3264E-01 9.9714E-01 1.0113E+00 1.0113E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	5.5953E+10							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	2.4241E+11	2.7170E-17	1.2738E-04	9.6172E-06	5.1705E-02	1.3974E-12	1.4987E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0535E+08	1.2525E-13	2.5402E-06	0.0000E+00	1.0126E+01	2.7367E-10	7.6710E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.7232E+09	1.3060E-14	1.6262E-06	9.8353E-03	1.3839E+01	3.7404E-10	4.5674E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148

Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4353E-13	1.847787E+04	1.9215E-01	2.6757E+01	7.2318E-10	2.9742E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.3129E-02	4.2053E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.1027E-01	2.1027E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.91086E+08
He	7.10270E+09
Na	1.09073E+19
Mg	1.64720E+08
Al	1.10676E+22
Si	6.17436E+10
P	5.52673E+01
S	9.35628E+20
Cl	1.45410E+09
Ar	1.78379E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	8.25652E+06
As	1.13335E+16
Se	2.45751E+07
Br	3.54167E+15
Kr	1.11196E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	4.90980E+05

In	0.00000E+00
Sn	1.09670E+05
Sb	1.16227E+15
Te	6.64648E+06
I	2.22242E-03
Xe	1.31981E+06
Cs	1.43471E+05
Ba	2.08115E+17
La	1.06000E+06
Ce	5.42617E-02
Pr	1.73686E-02
Nd	8.24771E+03
Pm	3.17123E+04
Sm	1.88252E+15
Eu	4.96853E+07
Gd	2.88940E+05
Lu	0.00000E+00
Hf	5.55735E-03
Ta	7.78002E+03
W	7.69706E+14
Re	7.96118E+05
Hg	6.39998E-02
Tl	3.29282E-01
Pb	4.78079E+15
Bi	6.73086E+02
Th	-1.70553E-02
U	1.18888E+15
Np	5.54030E-39
Pu	1.08988E+07
Totals:	4.41291E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.607E+02	2.258E+03	6.102E-02	1.757E-04	1.003E-09	1.847787E+04
338.6 (d)	4.804E-08	1.139E+01	2.676E+01	7.232E-04	2.974E-05	4.435E-13	1.847787E+04

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.258E+03	3.795E-04	1.757E-04	1.003E-09
338.6 (d)	2.676E+01	4.804E-08	2.974E-05	4.435E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.607E+05	4.268E-10	2.596E-05	1.518E+03
338.6 (d)	1.139E+04	1.887E-13	3.077E-07	1.922E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.607E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.139E+01	4.804E-08	1.887E-13	4.245E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	

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Step   10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     9.07 (y)       Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     9.99 (y)

Step   11 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    10.06 (y)       Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    10.99 (y)

Step   12 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    11.06 (y)       Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    11.99 (y)

Step   13 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    12.06 (y)       Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    12.99 (y)

Step   14 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    13.06 (y)       Intervals :  2

Cooling Times (s)  :

   2.9259E+07

    338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05


Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05


Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
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        Production of He  :      0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals: 4.4129E+22 4.4353E-13 1.847787E+04 1.9215E-01 2.6757E+01 7.2318E-10 2.9742E-05

Step : 14
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 13.06 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	6.0257E+10								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0524E+07	7.5482E-15	8.2323E-08	0.0000E+00	9.6490E-01	2.6078E-11	7.4223E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	2.6105E+11	2.9261E-17	1.3718E-04	1.0357E-05	5.5683E-02	1.5049E-12	1.6140E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6912E+08	5.3013E-13	1.0751E-05	0.0000E+00	4.2856E+01	1.1583E-09	3.2467E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.1985E+09	1.6662E-14	2.0747E-06	1.2548E-02	1.7656E+01	4.7720E-10	5.8272E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								

Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2577E+03	6.1019E-08	1.7570E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 13.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.05785E+08
He	7.64906E+09
Na	1.09073E+19
Mg	1.76958E+08
Al	1.10676E+22
Si	6.64927E+10
P	5.71010E+05
S	9.35628E+20
Cl	1.49078E+09
Ar	2.57736E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	8.87966E+06
As	1.13335E+16
Se	2.63551E+07
Br	3.54167E+15
Kr	1.19531E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	5.13724E+05
In	3.12104E-07
Sn	1.16862E+05
Sb	1.16227E+15
Te	6.96634E+06
I	2.25901E-03
Xe	1.34234E+06
Cs	1.72168E+05
Ba	2.08115E+17

La	1.14129E+06
Ce	5.76682E-02
Pr	1.86976E-02
Nd	8.33757E+03
Pm	3.18709E+04
Sm	1.88252E+15
Eu	5.31169E+07
Gd	2.91329E+05
Lu	0.00000E+00
Hf	5.98481E-03
Ta	7.83643E+03
W	7.69706E+14
Re	8.44262E+05
Hg	7.04356E-02
Tl	3.53027E-01
Pb	4.78079E+15
Bi	7.24474E+02
Th	-1.89202E-02
U	1.18888E+15
Np	1.08052E+05
Pu	1.16285E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1150E-01	2.0273E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	1.0136E+00	1.0136E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	6.0257E+10							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	2.6105E+11	2.9260E-17	1.3718E-04	1.0357E-05	5.5682E-02	1.5049E-12	1.6140E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0535E+08	1.2525E-13	2.5402E-06	0.0000E+00	1.0126E+01	2.7367E-10	7.6710E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							

Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.7381E+09	1.3173E-14	1.6402E-06	9.9203E-03	1.3959E+01	3.7727E-10	4.6069E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4364E-13	1.847787E+04	1.9224E-01	2.6881E+01	7.2651E-10	2.9783E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.3330E-02	4.2417E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10

14 (4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15 (5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.1209E-01	2.1209E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.05785E+08
He	7.64906E+09
Na	1.09073E+19
Mg	1.77391E+08
Al	1.10676E+22
Si	6.64931E+10
P	5.52673E+01
S	9.35628E+20
Cl	1.56602E+09
Ar	1.91861E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	8.89164E+06
As	1.13335E+16
Se	2.64655E+07
Br	3.54167E+15
Kr	1.19750E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	5.28837E+05
In	0.00000E+00
Sn	1.18106E+05
Sb	1.16227E+15
Te	7.15798E+06
I	2.39339E-03
Xe	1.42133E+06
Cs	1.62530E+05
Ba	2.08115E+17
La	1.14154E+06
Ce	5.84356E-02
Pr	1.87046E-02
Nd	9.53522E+03
Pm	3.37353E+04
Sm	1.88252E+15
Eu	5.35022E+07
Gd	3.22325E+05
Lu	0.00000E+00
Hf	5.98483E-03
Ta	8.38558E+03
W	7.69706E+14
Re	8.57395E+05
Hg	6.89227E-02
Tl	3.54733E-01
Pb	4.78079E+15
Bi	7.24862E+02
Th	-1.77211E-02
U	1.18888E+15
Np	5.54030E-39
Pu	1.17370E+07
Totals:	4.41291E+22

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.607E+02	2.258E+03	6.102E-02	1.757E-04	1.003E-09	1.847787E+04
338.6 (d)	4.806E-08	1.144E+01	2.688E+01	7.265E-04	2.978E-05	4.436E-13	1.847787E+04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.258E+03	3.795E-04	1.757E-04	1.003E-09
338.6 (d)	2.688E+01	4.806E-08	2.978E-05	4.436E-13

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.607E+05	4.268E-10	2.597E-05	1.518E+03
338.6 (d)	1.144E+04	1.888E-13	3.092E-07	1.922E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.607E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.144E+01	4.806E-08	1.888E-13	4.247E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

```
Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :       9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :      10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :      11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :      12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :      13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15
     AJBRF Reactor
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Elapsed Time   :      14.06 (y)          Cooling Time 0.

Nuclide     N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     4.3305E+05   4.1691E-12   3.2444E-07   9.7660E+00   5.5646E+00   1.5040E-10   2.3883E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28     6.4561E+10
 S 32     8.8903E+20
 S 33     7.0172E+18
 S 34     3.9390E+19
 S 35     1.0524E+07   7.5482E-15   8.2323E-08   0.0000E+00   9.6490E-01   2.6078E-11   7.4223E-07   8.750E+01 (d)    S 35
 S 36     1.8713E+17
Ar 37     6.5520E+07   6.4391E-15   2.8118E-08   2.0654E-03   1.5004E+01   4.0551E-10   1.2608E-06   3.503E+01 (d)   Ar 37
 K 39     1.2658E+21
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K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	2.7970E+11	3.1350E-17	1.4698E-04	1.1097E-05	5.9660E-02	1.6124E-12	1.7293E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6912E+08	5.3013E-13	1.0751E-05	0.0000E+00	4.2856E+01	1.1583E-09	3.2467E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.2131E+09	1.6773E-14	2.0885E-06	1.2631E-02	1.7774E+01	4.8037E-10	5.8659E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239
here are	114 Nuclides.								
Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2578E+03	6.1023E-08	1.7574E-04		

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 14.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.20484E+08
He	8.19542E+09
Na	1.09073E+19
Mg	1.89628E+08
Al	1.10676E+22
Si	7.12422E+10
P	5.71010E+05
S	9.35628E+20
Cl	1.60269E+09
Ar	2.71215E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	9.51478E+06
As	1.13335E+16
Se	2.82455E+07
Br	3.54167E+15
Kr	1.28084E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	5.51581E+05
In	3.12104E-07
Sn	1.25298E+05
Sb	1.16227E+15
Te	7.47783E+06
I	2.42999E-03
Xe	1.44386E+06
Cs	1.91286E+05
Ba	2.08115E+17
La	1.22283E+06
Ce	6.18422E-02
Pr	2.00336E-02
Nd	9.63079E+03
Pm	3.38883E+04
Sm	1.88252E+15
Eu	5.69338E+07
Gd	3.24768E+05
Lu	0.00000E+00
Hf	6.41230E-03
Ta	8.44198E+03
W	7.69706E+14
Re	9.05538E+05
Hg	7.53585E-02
Tl	3.78479E-01
Pb	4.78079E+15
Bi	7.76250E+02
Th	-1.95793E-02
U	1.18888E+15
Np	1.08052E+05
Pu	1.24667E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1170E-01	2.0308E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	1.0154E+00	1.0154E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	6.4561E+10							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	2.7970E+11	3.1350E-17	1.4698E-04	1.1097E-05	5.9659E-02	1.6124E-12	1.7293E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0535E+08	1.2525E-13	2.5402E-06	0.0000E+00	1.0126E+01	2.7367E-10	7.6710E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.7497E+09	1.3260E-14	1.6511E-06	9.9862E-03	1.4052E+01	3.7977E-10	4.6375E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4373E-13	1.847787E+04	1.9231E-01	2.6978E+01	7.2913E-10	2.9814E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.3485E-02	4.2701E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.1350E-01	2.1350E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.20484E+08
He	8.19542E+09
Na	1.09073E+19

Mg	1.90061E+08
Al	1.10676E+22
Si	7.12426E+10
P	5.52673E+01
S	9.35628E+20
Cl	1.67793E+09
Ar	2.05310E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	9.52675E+06
As	1.13335E+16
Se	2.83559E+07
Br	3.54167E+15
Kr	1.28303E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	5.66699E+05
In	0.00000E+00
Sn	1.26542E+05
Sb	1.16227E+15
Te	7.66947E+06
I	2.56436E-03
Xe	1.52285E+06
Cs	1.82396E+05
Ba	2.08115E+17
La	1.22308E+06
Ce	6.26096E-02
Pr	2.00407E-02
Nd	1.09004E+04
Pm	3.56808E+04
Sm	1.88252E+15
Eu	5.73192E+07
Gd	3.56410E+05
Lu	0.00000E+00
Hf	6.41232E-03
Ta	8.99113E+03
W	7.69706E+14
Re	9.18672E+05
Hg	7.38456E-02
Tl	3.80203E-01
Pb	4.78079E+15
Bi	7.76638E+02
Th	-1.82946E-02
U	1.18888E+15
Np	5.54030E-39
Pu	1.25752E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.608E+02	2.258E+03	6.102E-02	1.757E-04	1.003E-09	1.847787E+04
338.6 (d)	4.808E-08	1.148E+01	2.698E+01	7.291E-04	2.981E-05	4.437E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.258E+03	3.795E-04	1.757E-04	1.003E-09
338.6 (d)	2.698E+01	4.808E-08	2.981E-05	4.437E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.608E+05	4.268E-10	2.597E-05	1.518E+03
338.6 (d)	1.148E+04	1.888E-13	3.103E-07	1.923E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.608E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.148E+01	4.808E-08	1.888E-13	4.248E-01

```
                                                                    Elapsed Time.

Step    1 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     26.35 (d)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    365.00 (d)

Step    2 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      1.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      2.00 (y)

Step    3 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      2.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      3.00 (y)

Step    4 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      3.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      4.00 (y)

Step    5 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      4.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      5.00 (y)

Step    6 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      5.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.00 (y)

Step    7 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      6.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.99 (y)

Step    8 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      7.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      7.99 (y)

Step    9 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      8.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      8.99 (y)

Step   10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      9.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      9.99 (y)

Step   11 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     10.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     10.99 (y)

Step   12 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     11.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     11.99 (y)

Step   13 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     12.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     12.99 (y)

Step   14 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     13.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     13.99 (y)

Step   15 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     14.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     14.99 (y)

Step   16 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     15.06 (y)        Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
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Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05
```

Step : 11

Elapsed Time : 10.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2529E+03	6.0889E-08	1.7550E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 10.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4319E-13	1.847787E+04	1.9190E-01	2.6397E+01	7.1344E-10	2.9623E-05

Step : 12

Elapsed Time : 11.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2532E+03	6.0896E-08	1.7559E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 11.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4338E-13	1.847787E+04	1.9204E-01	2.6600E+01	7.1891E-10	2.9690E-05

Step : 13

Elapsed Time : 12.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2534E+03	6.0902E-08	1.7565E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 12.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4353E-13	1.847787E+04	1.9215E-01	2.6757E+01	7.2318E-10	2.9742E-05

Step : 14

Elapsed Time : 13.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2535E+03	6.0906E-08	1.7570E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 13.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4364E-13	1.847787E+04	1.9224E-01	2.6881E+01	7.2651E-10	2.9783E-05

Step : 15

Elapsed Time : 14.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2536E+03	6.0909E-08	1.7574E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 14.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4373E-13	1.847787E+04	1.9231E-01	2.6978E+01	7.2913E-10	2.9814E-05

Step : 16
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 15.06 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	6.8865E+10								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0524E+07	7.5482E-15	8.2323E-08	0.0000E+00	9.6490E-01	2.6078E-11	7.4223E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03 (My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	2.9834E+11	3.3440E-17	1.5678E-04	1.1836E-05	6.3637E-02	1.7199E-12	1.8445E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								

Ca 45	8.6912E+08	5.3013E-13	1.0751E-05	0.0000E+00	4.2856E+01	1.1583E-09	3.2467E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.2245E+09	1.6859E-14	2.0992E-06	1.2696E-02	1.7865E+01	4.8283E-10	5.8959E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							

Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals: 4.4129E+22 1.0029E-09 1.847787E+04 1.5180E+03 2.2579E+03 6.1025E-08 1.7578E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 15.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.35183E+08
He	8.74178E+09
Na	1.09073E+19
Mg	2.02299E+08
Al	1.10676E+22
Si	7.59917E+10
P	5.71010E+05
S	9.35628E+20
Cl	1.71461E+09
Ar	2.84662E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.01499E+07
As	1.13335E+16
Se	3.01359E+07
Br	3.54167E+15
Kr	1.36638E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	5.89443E+05
In	3.12104E-07
Sn	1.33734E+05
Sb	1.16227E+15
Te	7.98932E+06
I	2.60096E-03
Xe	1.54538E+06
Cs	2.11209E+05
Ba	2.08115E+17
La	1.30436E+06
Ce	6.60162E-02
Pr	2.13696E-02
Nd	1.10014E+04
Pm	3.58282E+04
Sm	1.88252E+15
Eu	6.07509E+07
Gd	3.58899E+05
Lu	0.00000E+00
Hf	6.83978E-03
Ta	9.04753E+03
W	7.69706E+14
Re	9.66815E+05
Hg	8.02814E-02
Tl	4.03951E-01
Pb	4.78079E+15
Bi	8.28026E+02
Th	-2.01461E-02
U	1.18888E+15
Np	1.08052E+05
Pu	1.33049E+07

Production of H : 0. appm/y,

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1185E-01	2.0336E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	1.0168E+00	1.0168E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	6.8865E+10							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	2.9834E+11	3.3440E-17	1.5678E-04	1.1836E-05	6.3636E-02	1.7199E-12	1.8445E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0535E+08	1.2525E-13	2.5402E-06	0.0000E+00	1.0126E+01	2.7367E-10	7.6710E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.7586E+09	1.3328E-14	1.6596E-06	1.0037E-02	1.4124E+01	3.8172E-10	4.6613E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87

Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4380E-13	1.847787E+04	1.9236E-01	2.7054E+01	7.3118E-10	2.9839E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.3607E-02	4.2921E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.1461E-01	2.1461E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.35183E+08
He	8.74178E+09
Na	1.09073E+19
Mg	2.02732E+08
Al	1.10676E+22
Si	7.59921E+10
P	5.52673E+01
S	9.35628E+20
Cl	1.78985E+09
Ar	2.18727E+08
K	1.35727E+21

Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.01619E+07
As	1.13335E+16
Se	3.02463E+07
Br	3.54167E+15
Kr	1.36857E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	6.04566E+05
In	0.00000E+00
Sn	1.34978E+05
Sb	1.16227E+15
Te	8.18096E+06
I	2.73534E-03
Xe	1.62438E+06
Cs	2.03019E+05
Ba	2.08115E+17
La	1.30462E+06
Ce	6.67836E-02
Pr	2.13767E-02
Nd	1.23402E+04
Pm	3.75515E+04
Sm	1.88252E+15
Eu	6.11365E+07
Gd	3.91100E+05
Lu	0.00000E+00
Hf	6.83981E-03
Ta	9.59667E+03
W	7.69706E+14
Re	9.79949E+05
Hg	7.87685E-02
Tl	4.05694E-01
Pb	4.78079E+15
Bi	8.28414E+02
Th	-1.87757E-02
U	1.18888E+15
Np	5.54030E-39
Pu	1.34133E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.608E+02	2.258E+03	6.103E-02	1.758E-04	1.003E-09	1.847787E+04
338.6 (d)	4.809E-08	1.151E+01	2.705E+01	7.312E-04	2.984E-05	4.438E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.258E+03	3.795E-04	1.758E-04	1.003E-09
338.6 (d)	2.705E+01	4.809E-08	2.984E-05	4.438E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.608E+05	4.268E-10	2.597E-05	1.518E+03
338.6 (d)	1.151E+04	1.889E-13	3.111E-07	1.924E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.608E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.151E+01	4.809E-08	1.889E-13	4.249E-01

			Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2

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                Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      2.00 (y)

Step    3 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      2.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      3.00 (y)

Step    4 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      3.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      4.00 (y)

Step    5 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      4.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      5.00 (y)

Step    6 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      5.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      6.00 (y)

Step    7 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      6.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      6.99 (y)

Step    8 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      7.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      7.99 (y)

Step    9 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      8.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      8.99 (y)

Step   10 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      9.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      9.99 (y)

Step   11 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     10.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     10.99 (y)

Step   12 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     11.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     11.99 (y)

Step   13 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     12.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     12.99 (y)

Step   14 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     13.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     13.99 (y)

Step   15 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     14.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     14.99 (y)

Step   16 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     15.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     15.99 (y)

Step   17 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     16.06 (y)        Intervals :  2

Cooling Times (s)  :

   2.9259E+07

    338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05
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Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
```

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otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17
     AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     16.06 (y)          Cooling Time 0.

Nuclide     N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     4.3305E+05   4.1691E-12   3.2444E-07   9.7660E+00   5.5646E+00   1.5040E-10   2.3883E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28     7.3169E+10
S 32      8.8903E+20
S 33      7.0172E+18
S 34      3.9390E+19
S 35      1.0524E+07   7.5482E-15   8.2323E-08   0.0000E+00   9.6490E-01   2.6078E-11   7.4223E-07   8.750E+01 (d)   S 35
S 36      1.8713E+17
Ar 37     6.5520E+07   6.4391E-15   2.8118E-08   2.0654E-03   1.5004E+01   4.0551E-10   1.2608E-06   3.503E+01 (d)   Ar 37
K 39      1.2658E+21
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K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	3.1699E+11	3.5530E-17	1.6657E-04	1.2576E-05	6.7614E-02	1.8274E-12	1.9598E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6912E+08	5.3013E-13	1.0751E-05	0.0000E+00	4.2856E+01	1.1583E-09	3.2467E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.2333E+09	1.6925E-14	2.1075E-06	1.2746E-02	1.7935E+01	4.8474E-10	5.9193E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239
here are	114 Nuclides.								
Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2580E+03	6.1027E-08	1.7580E-04		

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 16.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.49882E+08
He	9.28814E+09
Na	1.09073E+19
Mg	2.14970E+08
Al	1.10676E+22
Si	8.07412E+10
P	5.71010E+05
S	9.35628E+20
Cl	1.82652E+09
Ar	2.98076E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.07850E+07
As	1.13335E+16
Se	3.20263E+07
Br	3.54167E+15
Kr	1.45191E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	6.27310E+05
In	3.12104E-07
Sn	1.42170E+05
Sb	1.16227E+15
Te	8.50081E+06
I	2.77193E-03
Xe	1.64691E+06
Cs	2.31884E+05
Ba	2.08115E+17
La	1.38590E+06
Ce	7.01902E-02
Pr	2.27057E-02
Nd	1.24465E+04
Pm	3.76937E+04
Sm	1.88252E+15
Eu	6.45682E+07
Gd	3.93630E+05
Lu	0.00000E+00
Hf	7.26727E-03
Ta	9.65308E+03
W	7.69706E+14
Re	1.02809E+06
Hg	8.52043E-02
Tl	4.29443E-01
Pb	4.78079E+15
Bi	8.79802E+02
Th	-2.06206E-02
U	1.18888E+15
Np	1.08052E+05
Pu	1.41430E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1197E-01	2.0358E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	1.0179E+00	1.0179E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	7.3170E+10							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	3.1699E+11	3.5530E-17	1.6657E-04	1.2576E-05	6.7613E-02	1.8274E-12	1.9598E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0535E+08	1.2525E-13	2.5402E-06	0.0000E+00	1.0126E+01	2.7367E-10	7.6710E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.7656E+09	1.3381E-14	1.6662E-06	1.0077E-02	1.4180E+01	3.8323E-10	4.6797E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4386E-13	1.847787E+04	1.9240E-01	2.7114E+01	7.3280E-10	2.9859E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.3701E-02	4.3093E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1,22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.1547E-01	2.1547E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.49882E+08
He	9.28814E+09
Na	1.09073E+19

Mg	2.15403E+08
Al	1.10676E+22
Si	8.07416E+10
P	5.52673E+01
S	9.35628E+20
Cl	1.90177E+09
Ar	2.32110E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.07970E+07
As	1.13335E+16
Se	3.21367E+07
Br	3.54167E+15
Kr	1.45410E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	6.42437E+05
In	0.00000E+00
Sn	1.43414E+05
Sb	1.16227E+15
Te	8.69245E+06
I	2.90631E-03
Xe	1.72590E+06
Cs	2.24351E+05
Ba	2.08115E+17
La	1.38616E+06
Ce	7.09576E-02
Pr	2.27128E-02
Nd	1.38518E+04
Pm	3.93505E+04
Sm	1.88252E+15
Eu	6.49541E+07
Gd	4.26316E+05
Lu	0.00000E+00
Hf	7.26730E-03
Ta	1.02022E+04
W	7.69706E+14
Re	1.04123E+06
Hg	8.36914E-02
Tl	4.31205E-01
Pb	4.78079E+15
Bi	8.80190E+02
Th	-1.91646E-02
U	1.18888E+15
Np	5.54030E-39
Pu	1.42515E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.609E+02	2.258E+03	6.103E-02	1.758E-04	1.003E-09	1.847787E+04
338.6 (d)	4.810E-08	1.154E+01	2.711E+01	7.328E-04	2.986E-05	4.439E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.258E+03	3.795E-04	1.758E-04	1.003E-09
338.6 (d)	2.711E+01	4.810E-08	2.986E-05	4.439E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.609E+05	4.268E-10	2.597E-05	1.518E+03
338.6 (d)	1.154E+04	1.889E-13	3.118E-07	1.924E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.609E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.154E+01	4.810E-08	1.889E-13	4.250E-01

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                                                                    Elapsed Time.

Step    1 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     26.35 (d)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    365.00 (d)

Step    2 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      1.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      2.00 (y)

Step    3 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      2.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      3.00 (y)

Step    4 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      3.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      4.00 (y)

Step    5 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      4.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      5.00 (y)

Step    6 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      5.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.00 (y)

Step    7 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      6.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.99 (y)

Step    8 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      7.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      7.99 (y)

Step    9 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      8.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      8.99 (y)

Step   10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      9.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      9.99 (y)

Step   11 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     10.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     10.99 (y)

Step   12 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     11.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     11.99 (y)

Step   13 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     12.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     12.99 (y)

Step   14 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     13.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     13.99 (y)

Step   15 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     14.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     14.99 (y)

Step   16 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     15.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     15.99 (y)

Step   17 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     16.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     16.99 (y)

Step   18 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     17.06 (y)        Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor


Step :  1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :  2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


Step :  3
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Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
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        Production of He  :      0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
```

otals:	4.4129E+22	4.4386E-13	1.847787E+04	1.9240E-01	2.7114E+01	7.3280E-10	2.9859E-05

Step : 18
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 17.06 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	7.7473E+10								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0524E+07	7.5482E-15	8.2323E-08	0.0000E+00	9.6490E-01	2.6078E-11	7.4223E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03 (My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	3.3564E+11	3.7620E-17	1.7637E-04	1.3316E-05	7.1591E-02	1.9349E-12	2.0751E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6912E+08	5.3013E-13	1.0751E-05	0.0000E+00	4.2856E+01	1.1583E-09	3.2467E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11 (My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.2401E+09	1.6977E-14	2.1140E-06	1.2785E-02	1.7990E+01	4.8622E-10	5.9374E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04 (My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								

Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2581E+03	6.1029E-08	1.7582E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 17.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.64581E+08
He	9.83451E+09
Na	1.09073E+19
Mg	2.27641E+08
Al	1.10676E+22
Si	8.54907E+10
P	5.71010E+05
S	9.35628E+20
Cl	1.93844E+09
Ar	3.11457E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.14201E+07
As	1.13335E+16
Se	3.39167E+07
Br	3.54167E+15
Kr	1.53745E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	6.65182E+05
In	3.12104E-07
Sn	1.50606E+05
Sb	1.16227E+15
Te	9.01230E+06
I	2.94290E-03
Xe	1.74843E+06
Cs	2.53265E+05
Ba	2.08115E+17

La	1.46744E+06
Ce	7.43641E-02
Pr	2.40417E-02
Nd	1.39632E+04
Pm	3.94876E+04
Sm	1.88252E+15
Eu	6.83858E+07
Gd	4.28880E+05
Lu	0.00000E+00
Hf	7.69476E-03
Ta	1.02586E+04
W	7.69706E+14
Re	1.08937E+06
Hg	9.01272E-02
Tl	4.54955E-01
Pb	4.78079E+15
Bi	9.31578E+02
Th	-2.10027E-02
U	1.18888E+15
Np	1.08052E+05
Pu	1.49812E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1206E-01	2.0375E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	1.0187E+00	1.0187E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	7.7474E+10							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	3.3563E+11	3.7620E-17	1.7637E-04	1.3316E-05	7.1591E-02	1.9349E-12	2.0751E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0535E+08	1.2525E-13	2.5402E-06	0.0000E+00	1.0126E+01	2.7367E-10	7.6710E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							

Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.7710E+09	1.3422E-14	1.6713E-06	1.0108E-02	1.4223E+01	3.8440E-10	4.6940E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4390E-13	1.847787E+04	1.9243E-01	2.7161E+01	7.3408E-10	2.9874E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.3775E-02	4.3227E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10

14 (4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15 (5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.1614E-01	2.1614E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.64581E+08
He	9.83451E+09
Na	1.09073E+19
Mg	2.28074E+08
Al	1.10676E+22
Si	8.54911E+10
P	5.52673E+01
S	9.35628E+20
Cl	2.01368E+09
Ar	2.45461E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.14321E+07
As	1.13335E+16
Se	3.40271E+07
Br	3.54167E+15
Kr	1.53964E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	6.80313E+05
In	0.00000E+00
Sn	1.51850E+05
Sb	1.16227E+15
Te	9.20394E+06
I	3.07728E-03
Xe	1.82742E+06
Cs	2.46346E+05
Ba	2.08115E+17
La	1.46770E+06
Ce	7.51315E-02
Pr	2.40488E-02
Nd	1.54325E+04
Pm	4.10805E+04
Sm	1.88252E+15
Eu	6.87721E+07
Gd	4.61987E+05
Lu	0.00000E+00
Hf	7.69479E-03
Ta	1.08078E+04
W	7.69706E+14
Re	1.10250E+06
Hg	8.86144E-02
Tl	4.56736E-01
Pb	4.78079E+15
Bi	9.31966E+02
Th	-1.94611E-02
U	1.18888E+15
Np	5.54030E-39
Pu	1.50896E+07
Totals:	4.41291E+22

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.609E+02	2.258E+03	6.103E-02	1.758E-04	1.003E-09	1.847787E+04
338.6 (d)	4.811E-08	1.156E+01	2.716E+01	7.341E-04	2.987E-05	4.439E-13	1.847787E+04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.258E+03	3.795E-04	1.758E-04	1.003E-09
338.6 (d)	2.716E+01	4.811E-08	2.987E-05	4.439E-13

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.609E+05	4.268E-10	2.597E-05	1.518E+03
338.6 (d)	1.156E+04	1.889E-13	3.124E-07	1.924E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.609E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.156E+01	4.811E-08	1.889E-13	4.251E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

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Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :       8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :       9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :      10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :      11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :      12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :      13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :      14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      14.99 (y)
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	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4373E-13	1.847787E+04	1.9231E-01	2.6978E+01	7.2913E-10	2.9814E-05

Step : 16

Elapsed Time : 15.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2537E+03	6.0912E-08	1.7578E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 15.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4380E-13	1.847787E+04	1.9236E-01	2.7054E+01	7.3118E-10	2.9839E-05

Step : 17

Elapsed Time : 16.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2538E+03	6.0914E-08	1.7580E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 16.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4386E-13	1.847787E+04	1.9240E-01	2.7114E+01	7.3280E-10	2.9859E-05

Step : 18

Elapsed Time : 17.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2539E+03	6.0915E-08	1.7582E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 17.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4390E-13	1.847787E+04	1.9243E-01	2.7161E+01	7.3408E-10	2.9874E-05

Step : 19
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 18.06 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	8.1777E+10								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0524E+07	7.5482E-15	8.2323E-08	0.0000E+00	9.6490E-01	2.6078E-11	7.4223E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	3.5428E+11	3.9710E-17	1.8617E-04	1.4056E-05	7.5568E-02	2.0424E-12	2.1904E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.6912E+08	5.3013E-13	1.0751E-05	0.0000E+00	4.2856E+01	1.1583E-09	3.2467E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								

Fe 55	2.2454E+09	1.7017E-14	2.1190E-06	1.2816E-02	1.8033E+01	4.8738E-10	5.9515E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1816E+00	1.1302E-10	7.5208E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals: 4.4129E+22 1.0029E-09 1.847787E+04 1.5180E+03 2.2581E+03 6.1030E-08 1.7583E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 18.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.79280E+08
He	1.03809E+10

Na	1.09073E+19
Mg	2.40311E+08
Al	1.10676E+22
Si	9.02402E+10
P	5.71010E+05
S	9.35628E+20
Cl	2.05035E+09
Ar	3.24806E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.20552E+07
As	1.13335E+16
Se	3.58071E+07
Br	3.54167E+15
Kr	1.62298E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	7.03058E+05
In	3.12104E-07
Sn	1.59043E+05
Sb	1.16227E+15
Te	9.52379E+06
I	3.11387E-03
Xe	1.84995E+06
Cs	2.75307E+05
Ba	2.08115E+17
La	1.54898E+06
Ce	7.85381E-02
Pr	2.53778E-02
Nd	1.55488E+04
Pm	4.12127E+04
Sm	1.88252E+15
Eu	7.22038E+07
Gd	4.64582E+05
Lu	0.00000E+00
Hf	8.12225E-03
Ta	1.08642E+04
W	7.69706E+14
Re	1.15065E+06
Hg	9.50502E-02
Tl	4.80488E-01
Pb	4.78079E+15
Bi	9.83354E+02
Th	-2.12926E-02
U	1.18888E+15
Np	1.08052E+05
Pu	1.58193E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1213E-01	2.0388E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02

4.4103E+00 4.3264E-01 4.3264E-01 9.9714E-01 1.0194E+00 1.0194E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	8.1778E+10							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	3.5428E+11	3.9710E-17	1.8617E-04	1.4056E-05	7.5568E-02	2.0424E-12	2.1904E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0535E+08	1.2525E-13	2.5402E-06	0.0000E+00	1.0126E+01	2.7367E-10	7.6710E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.7752E+09	1.3454E-14	1.6752E-06	1.0132E-02	1.4257E+01	3.8531E-10	4.7051E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148

Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4393E-13	1.847787E+04	1.9246E-01	2.7199E+01	7.3510E-10	2.9887E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.3833E-02	4.3332E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.1666E-01	2.1666E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.79280E+08
He	1.03809E+10
Na	1.09073E+19
Mg	2.40744E+08
Al	1.10676E+22
Si	9.02406E+10
P	5.52673E+01
S	9.35628E+20
Cl	2.12560E+09
Ar	2.58780E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.20672E+07
As	1.13335E+16
Se	3.59175E+07
Br	3.54167E+15
Kr	1.62517E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	7.18195E+05

In	0.00000E+00
Sn	1.60286E+05
Sb	1.16227E+15
Te	9.71543E+06
I	3.24825E-03
Xe	1.92895E+06
Cs	2.68963E+05
Ba	2.08115E+17
La	1.54924E+06
Ce	7.93055E-02
Pr	2.53848E-02
Nd	1.70796E+04
Pm	4.27440E+04
Sm	1.88252E+15
Eu	7.25905E+07
Gd	4.98052E+05
Lu	0.00000E+00
Hf	8.12228E-03
Ta	1.14133E+04
W	7.69706E+14
Re	1.16378E+06
Hg	9.35373E-02
Tl	4.82287E-01
Pb	4.78079E+15
Bi	9.83742E+02
Th	-1.96653E-02
U	1.18888E+15
Np	5.54030E-39
Pu	1.59277E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.609E+02	2.258E+03	6.103E-02	1.758E-04	1.003E-09	1.847787E+04
338.6 (d)	4.811E-08	1.157E+01	2.720E+01	7.351E-04	2.989E-05	4.439E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete Sl :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.258E+03	3.795E-04	1.758E-04	1.003E-09
338.6 (d)	2.720E+01	4.811E-08	2.989E-05	4.439E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.609E+05	4.268E-10	2.597E-05	1.518E+03
338.6 (d)	1.157E+04	1.889E-13	3.128E-07	1.925E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.609E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.157E+01	4.811E-08	1.889E-13	4.251E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	

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Step   10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     9.07 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     9.99 (y)

Step   11 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    10.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    10.99 (y)

Step   12 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    11.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    11.99 (y)

Step   13 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    12.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    12.99 (y)

Step   14 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    13.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    13.99 (y)

Step   15 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    14.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    14.99 (y)

Step   16 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    15.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    15.99 (y)

Step   17 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    16.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    16.99 (y)

Step   18 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    17.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    17.99 (y)

Step   19 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    18.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    18.99 (y)

Step   20 : Activation of  3.31020E+06(s), i.e.     38.31 (d)    19.09 (y)      Intervals :  2

Cooling Times (s)  :

  2.8226E+07

   326.7 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :     26.35 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :    365.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :   2

Elapsed Time   :      1.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      2.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :      2.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      3.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :      3.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      4.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5
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Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
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        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     18.99 (y)
```

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4393E-13	1.847787E+04	1.9246E-01	2.7199E+01	7.3510E-10	2.9887E-05

Step : 20
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 19.09 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24ml	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24ml
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	8.8036E+10								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.4341E+07	1.0287E-14	1.1219E-07	0.0000E+00	1.3149E+00	3.5539E-11	1.0115E-06	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	8.5669E+07	8.4194E-15	3.6766E-08	2.7006E-03	1.9618E+01	5.3022E-10	1.6486E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	3.8139E+11	4.2749E-17	2.0042E-04	1.5131E-05	8.1350E-02	2.1987E-12	2.3580E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	1.1467E+09	6.9942E-13	1.4184E-05	0.0000E+00	5.6541E+01	1.5281E-09	4.2834E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.6104E+05	1.0388E-13	5.8755E-08	2.0825E-01	4.6151E-01	1.2473E-11	7.3842E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.9109E+05	1.9899E-14	8.2981E-09	2.1164E-02	4.5825E-01	1.2385E-11	2.4770E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.4620E+09	1.8659E-14	2.3233E-06	1.4052E-02	1.9772E+01	5.3438E-10	6.5255E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	3.0920E+07	1.1674E-12	6.4745E-06	2.8211E+00	5.5748E+00	1.5067E-10	1.0027E-05	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60ml	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60ml
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								

Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0472E+05	8.8563E-14	2.1480E-08	4.3992E-02	1.6686E+00	4.5098E-11	1.2360E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0810E+05	2.6257E-14	7.7067E-09	2.8552E-02	3.6829E-01	9.9537E-12	2.9463E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals:	4.4129E+22	1.0034E-09	1.847787E+04	1.5187E+03	2.2799E+03	6.1620E-08	1.8996E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 19.09 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.00651E+08
He	1.11752E+10
Na	1.09073E+19
Mg	2.58733E+08
Al	1.10676E+22
Si	9.71465E+10
P	7.22043E+05
S	9.35628E+20
Cl	2.18911E+09
Ar	3.64583E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.29786E+07
As	1.13335E+16
Se	3.85555E+07
Br	3.54167E+15
Kr	1.74734E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	7.52090E+05
In	3.12104E-07
Sn	1.71306E+05
Sb	1.16227E+15
Te	1.02164E+07
I	3.32043E-03
Xe	1.97977E+06
Cs	3.09506E+05

Ba	2.08115E+17
La	1.66751E+06
Ce	8.46034E-02
Pr	2.73202E-02
Nd	1.72556E+04
Pm	4.29826E+04
Sm	1.88252E+15
Eu	7.77633E+07
Gd	5.01986E+05
Lu	0.00000E+00
Hf	8.74376E-03
Ta	1.15214E+04
W	7.69706E+14
Re	1.23577E+06
Hg	1.02731E-01
Tl	4.94326E-01
Pb	4.78079E+15
Bi	1.05913E+03
Th	-1.94777E-02
U	1.18888E+15
Np	1.08098E+05
Pu	1.70379E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1608E-01	2.1105E+00
2	(0.1 -> 0.2 MeV)	1.6726E-01	1.0791E+00
3	(0.2 -> 0.4 MeV)	2.6095E-01	8.6985E-01
4	(0.4 -> 0.6 MeV)	2.2054E+00	4.4107E+00
5	(0.6 -> 0.8 MeV)	5.7840E-02	8.2628E-02
6	(0.8 -> 1.0 MeV)	5.0453E+00	5.6058E+00
7	(1.0 ->1.22 MeV)	3.6143E+00	3.2561E+00
8	(1.22 ->1.44 MeV)	1.1914E+01	8.9581E+00
9	(1.44 ->1.66 MeV)	5.8871E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6939E+01	3.2561E+00	5.6058E+00	8.2628E-02
4.4107E+00	4.3492E-01	4.3492E-01	1.0791E+00	1.0553E+00	1.0553E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 326.69 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	8.8036E+10							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	3.8139E+11	4.2748E-17	2.0041E-04	1.5131E-05	8.1350E-02	2.1986E-12	2.3580E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.8509E+08	1.7389E-13	3.5265E-06	0.0000E+00	1.4058E+01	3.7993E-10	1.0650E-05	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							

Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.9626E+09	1.4874E-14	1.8521E-06	1.1202E-02	1.5762E+01	4.2600E-10	5.2019E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
326.7 (d)		4.9399E-13	1.847787E+04	1.9353E-01	3.2642E+01	8.8220E-10	3.3364E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 326.69 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.6337E-02	4.7885E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10

13 (3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14 (4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15 (5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.3943E-01	2.3943E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 326.69 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.00651E+08
He	1.11752E+10
Na	1.09073E+19
Mg	2.59166E+08
Al	1.10676E+22
Si	9.71468E+10
P	9.68641E+01
S	9.35628E+20
Cl	2.28791E+09
Ar	2.78438E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.29906E+07
As	1.13335E+16
Se	3.86659E+07
Br	3.54167E+15
Kr	1.74953E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	7.72848E+05
In	0.00000E+00
Sn	1.72551E+05
Sb	1.16227E+15
Te	1.04575E+07
I	3.49668E-03
Xe	2.07655E+06
Cs	2.92998E+05
Ba	2.08115E+17
La	1.66777E+06
Ce	8.53739E-02
Pr	2.73273E-02
Nd	1.88050E+04
Pm	4.50693E+04
Sm	1.88252E+15
Eu	7.81494E+07
Gd	5.36602E+05
Lu	0.00000E+00
Hf	8.74379E-03
Ta	1.22528E+04
W	7.69706E+14
Re	1.25262E+06
Hg	1.00710E-01
Tl	4.96644E-01
Pb	4.78079E+15
Bi	1.05952E+03
Th	-1.77878E-02
U	1.18888E+15
Np	1.87402E-37
Pu	1.71463E+07
Totals:	4.41291E+22

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.797E-04	9.702E+02	2.280E+03	6.162E-02	1.900E-04	1.003E-09	1.847787E+04
326.7 (d)	4.838E-08	1.389E+01	3.264E+01	8.822E-04	3.336E-05	4.940E-13	1.847787E+04

AJBRF Reactor

AJBRF Soil (Side) Flux

AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.280E+03	3.797E-04	1.900E-04	1.003E-09
326.7 (d)	3.264E+01	4.838E-08	3.336E-05	4.940E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.702E+05	4.270E-10	2.622E-05	1.519E+03
326.7 (d)	1.389E+04	2.102E-13	3.754E-07	1.935E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.702E+02	3.797E-04	4.270E-10	2.768E+03
326.7 (d)	1.389E+01	4.838E-08	2.102E-13	4.278E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2

Cooling Times (s) :

2.8710E+07

332.3 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2411E+03	6.0571E-08	1.7080E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3024E-13	1.847787E+04	1.8637E-01	1.8127E+01	4.8992E-10	2.6703E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2451E+03	6.0678E-08	1.7275E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3648E-13	1.847787E+04	1.8775E-01	2.0433E+01	5.5225E-10	2.7616E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2473E+03	6.0738E-08	1.7362E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 4.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3884E-13	1.847787E+04	1.8882E-01	2.2017E+01	5.9504E-10	2.8170E-05

Step : 5

Elapsed Time : 4.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2489E+03	6.0780E-08	1.7416E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 5.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4014E-13	1.847787E+04	1.8965E-01	2.3204E+01	6.2714E-10	2.8569E-05

Step : 6

Elapsed Time : 5.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2500E+03	6.0812E-08	1.7455E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4104E-13	1.847787E+04	1.9029E-01	2.4118E+01	6.5184E-10	2.8872E-05

Step : 7

Elapsed Time : 6.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2509E+03	6.0836E-08	1.7485E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4171E-13	1.847787E+04	1.9080E-01	2.4826E+01	6.7098E-10	2.9106E-05

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Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15
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Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05


Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05


Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05


Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05


Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05


Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05


Step :  21
     AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     20.07 (y)          Cooling Time 0.

Nuclide      N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23      1.0907E+19
Na 24      4.3305E+05   4.1691E-12   3.2444E-07   9.7660E+00   5.5646E+00   1.5040E-10   2.3883E-06   1.498E+01 (h)   Na 24
Na 24m1    1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27      1.1068E+22
Al 28      3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28      9.3376E+10
 S 32      8.8903E+20
 S 33      7.0172E+18
 S 34      3.9390E+19
 S 35      1.2874E+07   9.2341E-15   1.0071E-07   0.0000E+00   1.1804E+00   3.1903E-11   9.0802E-07   8.750E+01 (d)    S 35
 S 36      1.8713E+17
```

Ar 37	7.6847E+07	7.5524E-15	3.2980E-08	2.4225E-03	1.7598E+01	4.7562E-10	1.4788E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	4.0453E+11	4.5343E-17	2.1258E-04	1.6049E-05	8.6287E-02	2.3321E-12	2.5011E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	1.0877E+09	6.6348E-13	1.3455E-05	0.0000E+00	5.3636E+01	1.4496E-09	4.0634E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.6002E+05	1.0347E-13	5.8526E-08	2.0744E-01	4.5971E-01	1.2425E-11	7.3554E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8866E+05	1.9645E-14	8.1924E-09	2.0894E-02	4.5241E-01	1.2227E-11	2.4455E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.5459E+09	1.9295E-14	2.4025E-06	1.4531E-02	2.0446E+01	5.5259E-10	6.7478E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.7521E+07	1.0390E-12	5.7628E-06	2.5110E+00	4.9620E+00	1.3411E-10	8.9245E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0471E+05	8.8563E-14	2.1480E-08	4.3992E-02	1.6686E+00	4.5098E-11	1.2360E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								

W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0809E+05	2.6255E-14	7.7063E-09	2.8551E-02	3.6827E-01	9.9532E-12	2.9462E-07	2.355E+00 (d)	Np239
here are	114 Nuclides.								
Totals:	4.4129E+22	1.0032E-09	1.847787E+04	1.5184E+03	2.2749E+03	6.1485E-08	1.8661E-04		

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 20.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.18895E+08
He	1.18534E+10
Na	1.09073E+19
Mg	2.74459E+08
Al	1.10676E+22
Si	1.03039E+11
P	6.57396E+05
S	9.35628E+20
Cl	2.33829E+09
Ar	3.72404E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.37669E+07
As	1.13335E+16
Se	4.09019E+07
Br	3.54167E+15
Kr	1.85350E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	8.01589E+05
In	3.12104E-07
Sn	1.81777E+05
Sb	1.16227E+15
Te	1.08732E+07
I	3.55107E-03
Xe	2.11298E+06
Cs	3.28794E+05
Ba	2.08115E+17
La	1.76870E+06
Ce	8.97848E-02
Pr	2.89785E-02
Nd	1.89634E+04
Pm	4.52927E+04
Sm	1.88252E+15
Eu	8.25064E+07
Gd	5.40136E+05
Lu	0.00000E+00
Hf	9.27436E-03
Ta	1.23418E+04
W	7.69706E+14
Re	1.31344E+06
Hg	1.08622E-01
Tl	5.06915E-01
Pb	4.78079E+15
Bi	1.12391E+03
Th	-1.56629E-02
U	1.18888E+15
Np	1.08092E+05
Pu	1.80782E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1674E-01	2.1226E+00
2	(0.1 -> 0.2 MeV)	1.6206E-01	1.0455E+00
3	(0.2 -> 0.4 MeV)	2.6036E-01	8.6786E-01
4	(0.4 -> 0.6 MeV)	2.2053E+00	4.4106E+00
5	(0.6 -> 0.8 MeV)	5.7837E-02	8.2624E-02
6	(0.8 -> 1.0 MeV)	5.0452E+00	5.6057E+00
7	(1.0 ->1.22 MeV)	3.2324E+00	2.9120E+00
8	(1.22 ->1.44 MeV)	1.1571E+01	8.7003E+00
9	(1.44 ->1.66 MeV)	5.8871E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6681E+01	2.9120E+00	5.6057E+00	8.2624E-02
4.4106E+00	4.3393E-01	4.3393E-01	1.0455E+00	1.0613E+00	1.0613E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 332.29 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	9.3376E+10							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	4.0453E+11	4.5342E-17	2.1258E-04	1.6049E-05	8.6286E-02	2.3321E-12	2.5010E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.6406E+08	1.6107E-13	3.2664E-06	0.0000E+00	1.3021E+01	3.5191E-10	9.8641E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	2.0216E+09	1.5322E-14	1.9078E-06	1.1538E-02	1.6236E+01	4.3880E-10	5.3583E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
332.3 (d)		4.8162E-13	1.847787E+04	1.9386E-01	3.2083E+01	8.6712E-10	3.2736E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 332.29 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.7126E-02	4.9321E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.4660E-01	2.4660E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 332.29 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.18895E+08

He	1.18534E+10
Na	1.09073E+19
Mg	2.74892E+08
Al	1.10676E+22
Si	1.03040E+11
P	7.56830E+01
S	9.35628E+20
Cl	2.42698E+09
Ar	2.95007E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.37789E+07
As	1.13335E+16
Se	4.10123E+07
Br	3.54167E+15
Kr	1.85569E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	8.20035E+05
In	0.00000E+00
Sn	1.83022E+05
Sb	1.16227E+15
Te	1.10931E+07
I	3.70896E-03
Xe	2.20256E+06
Cs	3.18052E+05
Ba	2.08115E+17
La	1.76895E+06
Ce	9.05547E-02
Pr	2.89856E-02
Nd	2.06216E+04
Pm	4.73591E+04
Sm	1.88252E+15
Eu	8.28919E+07
Gd	5.76504E+05
Lu	0.00000E+00
Hf	9.27439E-03
Ta	1.30189E+04
W	7.69706E+14
Re	1.32879E+06
Hg	1.06825E-01
Tl	5.09036E-01
Pb	4.78079E+15
Bi	1.12429E+03
Th	-1.38397E-02
U	1.18888E+15
Np	3.60006E-38
Pu	1.81866E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.796E-04	9.681E+02	2.275E+03	6.148E-02	1.866E-04	1.003E-09	1.847787E+04
332.3 (d)	4.847E-08	1.365E+01	3.208E+01	8.671E-04	3.274E-05	4.816E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.275E+03	3.796E-04	1.866E-04	1.003E-09
332.3 (d)	3.208E+01	4.847E-08	3.274E-05	4.816E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.681E+05	4.269E-10	2.616E-05	1.518E+03
332.3 (d)	1.365E+04	2.049E-13	3.690E-07	1.939E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.681E+02	3.796E-04	4.269E-10	2.768E+03
332.3 (d)	1.365E+01	4.847E-08	2.049E-13	4.283E-01

```
                                                                    Elapsed Time.
Step   1 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     26.35 (d)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    365.00 (d)

Step   2 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      1.07 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      2.00 (y)

Step   3 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      2.07 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      3.00 (y)

Step   4 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      3.07 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      4.00 (y)

Step   5 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      4.07 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      5.00 (y)

Step   6 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      5.07 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.00 (y)

Step   7 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      6.07 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.99 (y)

Step   8 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      7.07 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      7.99 (y)

Step   9 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      8.07 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      8.99 (y)

Step  10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      9.07 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      9.99 (y)

Step  11 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     10.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     10.99 (y)

Step  12 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     11.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     11.99 (y)

Step  13 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     12.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     12.99 (y)

Step  14 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     13.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     13.99 (y)

Step  15 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     14.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     14.99 (y)

Step  16 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     15.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     15.99 (y)

Step  17 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     16.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     16.99 (y)

Step  18 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     17.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     17.99 (y)

Step  19 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     18.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     18.99 (y)

Step  20 : Activation of  3.31020E+06(s), i.e.     38.31 (d)     19.09 (y)        Intervals :  2
           Cold Pause of  2.82258E+07(s), i.e.    326.69 (d)     19.98 (y)

Step  21 : Activation of  2.82600E+06(s), i.e.     32.71 (d)     20.07 (y)        Intervals :  2
           Cold Pause of  2.87100E+07(s), i.e.    332.29 (d)     20.98 (y)

Step  22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)     21.05 (y)        Intervals :  2

Cooling Times (s)  :

   2.9394E+07

    340.2 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2
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Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
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        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     15.99 (y)
```

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4380E-13	1.847787E+04	1.9236E-01	2.7054E+01	7.3118E-10	2.9839E-05

Step : 17

Elapsed Time : 16.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2538E+03	6.0914E-08	1.7580E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 16.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4386E-13	1.847787E+04	1.9240E-01	2.7114E+01	7.3280E-10	2.9859E-05

Step : 18

Elapsed Time : 17.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2539E+03	6.0915E-08	1.7582E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 17.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4390E-13	1.847787E+04	1.9243E-01	2.7161E+01	7.3408E-10	2.9874E-05

Step : 19

Elapsed Time : 18.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2539E+03	6.0917E-08	1.7583E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 18.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4393E-13	1.847787E+04	1.9246E-01	2.7199E+01	7.3510E-10	2.9887E-05

Step : 20

Elapsed Time : 19.09 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0031E-09	1.847787E+04	1.5179E+03	2.2757E+03	6.1506E-08	1.8996E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 19.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.9399E-13	1.847787E+04	1.9353E-01	3.2642E+01	8.8220E-10	3.3364E-05

Step : 21

Elapsed Time : 20.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5176E+03	2.2707E+03	6.1371E-08	1.8661E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 20.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.8162E-13	1.847787E+04	1.9386E-01	3.2083E+01	8.6712E-10	3.2736E-05

Step : 22
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 21.05 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24ml	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24ml
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	9.7424E+10								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0168E+07	7.2929E-15	7.9539E-08	0.0000E+00	9.3227E-01	2.5197E-11	7.1713E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.2538E+07	6.1461E-15	2.6839E-08	1.9714E-03	1.4321E+01	3.8706E-10	1.2035E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	4.2207E+11	4.7309E-17	2.2179E-04	1.6745E-05	9.0028E-02	2.4332E-12	2.6095E-08	1.030E+05 (y)	Ca 41

Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.8468E+08	5.3962E-13	1.0943E-05	0.0000E+00	4.3623E+01	1.1790E-09	3.3048E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5586E+05	1.0182E-13	5.7589E-08	2.0412E-01	4.5235E-01	1.2226E-11	7.2377E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.7955E+05	1.8696E-14	7.7966E-09	1.9885E-02	4.3055E-01	1.1637E-11	2.3273E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.4639E+09	1.8674E-14	2.3252E-06	1.4063E-02	1.9788E+01	5.3480E-10	6.5306E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.2099E+07	8.3433E-13	4.6274E-06	2.0163E+00	3.9844E+00	1.0769E-10	7.1662E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0466E+05	8.8551E-14	2.1477E-08	4.3986E-02	1.6684E+00	4.5092E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2
W186	2.1883E+14							

Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02 (My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03 (My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0803E+05	2.6239E-14	7.7015E-09	2.8533E-02	3.6804E-01	9.9471E-12	2.9443E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals: 4.4129E+22 1.0029E-09 1.847787E+04 1.5179E+03 2.2597E+03 6.1074E-08 1.7656E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 21.05 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.32724E+08
He	1.23674E+10
Na	1.09073E+19
Mg	2.86381E+08
Al	1.10676E+22
Si	1.07507E+11
P	5.47427E+05
S	9.35628E+20
Cl	2.46061E+09
Ar	3.70512E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.43644E+07
As	1.13335E+16
Se	4.26803E+07
Br	3.54167E+15
Kr	1.93397E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	8.41399E+05
In	3.12104E-07
Sn	1.89716E+05
Sb	1.16227E+15
Te	1.13901E+07
I	3.74168E-03
Xe	2.22213E+06
Cs	3.45402E+05
Ba	2.08115E+17
La	1.84537E+06
Ce	9.37154E-02
Pr	3.02354E-02
Nd	2.07477E+04
Pm	4.75000E+04
Sm	1.88252E+15
Eu	8.60964E+07
Gd	5.79208E+05
Lu	0.00000E+00
Hf	9.67653E-03
Ta	1.30732E+04
W	7.69706E+14
Re	1.37388E+06
Hg	1.12900E-01
Tl	5.16639E-01
Pb	4.78079E+15
Bi	1.17268E+03
Th	-1.56553E-02
U	1.18888E+15
Np	1.08025E+05
Pu	1.88666E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1490E-01	2.0890E+00
2	(0.1 -> 0.2 MeV)	1.5239E-01	9.8316E-01
3	(0.2 -> 0.4 MeV)	2.5939E-01	8.6462E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4101E+00
5	(0.6 -> 0.8 MeV)	5.7826E-02	8.2609E-02
6	(0.8 -> 1.0 MeV)	5.0448E+00	5.6053E+00
7	(1.0 ->1.22 MeV)	2.6231E+00	2.3631E+00
8	(1.22 ->1.44 MeV)	1.1020E+01	8.2857E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7980E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6266E+01	2.3631E+00	5.6053E+00	8.2609E-02
4.4101E+00	4.3231E-01	4.3231E-01	9.8316E-01	1.0445E+00	1.0445E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 340.21 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	9.7425E+10							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	4.2207E+11	4.7308E-17	2.2179E-04	1.6745E-05	9.0027E-02	2.4332E-12	2.6095E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0764E+08	1.2665E-13	2.5685E-06	0.0000E+00	1.0239E+01	2.7672E-10	7.7566E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.9458E+09	1.4747E-14	1.8363E-06	1.1106E-02	1.5627E+01	4.2235E-10	5.1574E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Ga 71	4.0485E+15						
As 75	1.1334E+16						
Br 79	1.7953E+15						

Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
340.2 (d)		4.4663E-13	1.847787E+04	1.9343E-01	2.8697E+01	7.7558E-10	3.0429E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 340.21 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.6116E-02	4.7484E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

*18-Group gamma source distribution (Photons/cm3*s)*
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.3742E-01	2.3742E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 340.21 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.32724E+08
He	1.23674E+10
Na	1.09073E+19
Mg	2.86814E+08
Al	1.10676E+22
Si	1.07507E+11
P	5.07758E+01
S	9.35628E+20

Cl	2.53255E+09
Ar	3.07348E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.43764E+07
As	1.13335E+16
Se	4.27907E+07
Br	3.54167E+15
Kr	1.93616E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	8.55948E+05
In	0.00000E+00
Sn	1.90959E+05
Sb	1.16227E+15
Te	1.15753E+07
I	3.86989E-03
Xe	2.29807E+06
Cs	3.43461E+05
Ba	2.08115E+17
La	1.84563E+06
Ce	9.44815E-02
Pr	3.02425E-02
Nd	2.25164E+04
Pm	4.90787E+04
Sm	1.88252E+15
Eu	8.64826E+07
Gd	6.16046E+05
Lu	0.00000E+00
Hf	9.67656E-03
Ta	1.36169E+04
W	7.69706E+14
Re	1.38660E+06
Hg	1.11458E-01
Tl	5.18431E-01
Pb	4.78079E+15
Bi	1.17307E+03
Th	-1.37077E-02
U	1.18888E+15
Np	3.49920E-39
Pu	1.89749E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.616E+02	2.260E+03	6.107E-02	1.766E-04	1.003E-09	1.847787E+04
340.2 (d)	4.836E-08	1.221E+01	2.870E+01	7.756E-04	3.043E-05	4.466E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete Sl :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.260E+03	3.795E-04	1.766E-04	1.003E-09
340.2 (d)	2.870E+01	4.836E-08	3.043E-05	4.466E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.616E+05	4.268E-10	2.599E-05	1.518E+03
340.2 (d)	1.221E+04	1.901E-13	3.300E-07	1.934E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.616E+02	3.795E-04	4.268E-10	2.768E+03
340.2 (d)	1.221E+01	4.836E-08	1.901E-13	4.271E-01

Elapsed Time.

Step 1 : Activation of 2.27682E+06(s), i.e. 26.35 (d) 26.35 (d) Intervals : 2

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                Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     365.00 (d)

      Step    2 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      1.07 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      2.00 (y)

      Step    3 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      2.07 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      3.00 (y)

      Step    4 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      3.07 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      4.00 (y)

      Step    5 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      4.07 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      5.00 (y)

      Step    6 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      5.07 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.00 (y)

      Step    7 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      6.07 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.99 (y)

      Step    8 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      7.07 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      7.99 (y)

      Step    9 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      8.07 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      8.99 (y)

      Step   10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      9.07 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      9.99 (y)

      Step   11 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     10.06 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     10.99 (y)

      Step   12 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     11.06 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     11.99 (y)

      Step   13 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     12.06 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     12.99 (y)

      Step   14 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     13.06 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     13.99 (y)

      Step   15 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     14.06 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     14.99 (y)

      Step   16 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     15.06 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     15.99 (y)

      Step   17 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     16.06 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     16.99 (y)

      Step   18 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     17.06 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     17.99 (y)

      Step   19 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     18.06 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     18.99 (y)

      Step   20 : Activation of  3.31020E+06(s), i.e.     38.31 (d)     19.09 (y)        Intervals :  2
                  Cold Pause of  2.82258E+07(s), i.e.    326.69 (d)     19.98 (y)

      Step   21 : Activation of  2.82600E+06(s), i.e.     32.71 (d)     20.07 (y)        Intervals :  2
                  Cold Pause of  2.87100E+07(s), i.e.    332.29 (d)     20.98 (y)

      Step   22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)     21.05 (y)        Intervals :  2
                  Cold Pause of  2.93940E+07(s), i.e.    340.21 (d)     21.98 (y)

      Step   23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)     22.05 (y)        Intervals :  2

Cooling Times (s)  :

   2.9412E+07

    340.4 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)     Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)     Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)     Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
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        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :      2.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time    :      2.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :      3.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time    :      3.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :      4.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time    :      4.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :      5.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time    :      5.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :      6.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time    :      6.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :      6.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time    :      7.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :      7.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time    :      8.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :      8.99 (y)
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            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05
```

Step : 17

Elapsed Time : 16.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2538E+03	6.0914E-08	1.7580E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 16.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4386E-13	1.847787E+04	1.9240E-01	2.7114E+01	7.3280E-10	2.9859E-05

Step : 18

Elapsed Time : 17.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2539E+03	6.0915E-08	1.7582E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 17.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4390E-13	1.847787E+04	1.9243E-01	2.7161E+01	7.3408E-10	2.9874E-05

Step : 19

Elapsed Time : 18.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2539E+03	6.0917E-08	1.7583E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 18.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4393E-13	1.847787E+04	1.9246E-01	2.7199E+01	7.3510E-10	2.9887E-05

Step : 20

Elapsed Time : 19.09 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0031E-09	1.847787E+04	1.5179E+03	2.2757E+03	6.1506E-08	1.8996E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 19.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.9399E-13	1.847787E+04	1.9353E-01	3.2642E+01	8.8220E-10	3.3364E-05

Step : 21

Elapsed Time : 20.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5176E+03	2.2707E+03	6.1371E-08	1.8661E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 20.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.8162E-13	1.847787E+04	1.9386E-01	3.2083E+01	8.6712E-10	3.2736E-05

Step : 22

Elapsed Time : 21.05 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2555E+03	6.0960E-08	1.7656E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 21.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4663E-13	1.847787E+04	1.9343E-01	2.8697E+01	7.7558E-10	3.0429E-05

Step : 23
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 22.05 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.0144E+11								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								

S 35	9.9006E+06	7.1014E-15	7.7450E-08	0.0000E+00	9.0778E-01	2.4535E-11	6.9829E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.2110E+07	6.1041E-15	2.6655E-08	1.9580E-03	1.4223E+01	3.8441E-10	1.1952E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	4.3947E+11	4.9258E-17	2.3093E-04	1.7435E-05	9.3738E-02	2.5335E-12	2.7170E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.2892E+08	5.0561E-13	1.0254E-05	0.0000E+00	4.0874E+01	1.1047E-09	3.0965E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5566E+05	1.0174E-13	5.7546E-08	2.0397E-01	4.5201E-01	1.2217E-11	7.2322E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.7915E+05	1.8655E-14	7.7793E-09	1.9841E-02	4.2960E-01	1.1611E-11	2.3222E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.3857E+09	1.8081E-14	2.2514E-06	1.3616E-02	1.9160E+01	5.1783E-10	6.3233E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.1917E+07	8.2745E-13	4.5893E-06	1.9997E+00	3.9516E+00	1.0680E-10	7.1071E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0465E+05	8.8550E-14	2.1477E-08	4.3986E-02	1.6684E+00	4.5091E-11	1.2358E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								

W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0802E+05	2.6238E-14	7.7012E-09	2.8532E-02	3.6803E-01	9.9467E-12	2.9442E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals: 4.4129E+22 1.0028E-09 1.847787E+04 1.5179E+03 2.2562E+03 6.0978E-08 1.7418E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 22.05 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.46436E+08
He	1.28771E+10
Na	1.09073E+19
Mg	2.98199E+08
Al	1.10676E+22
Si	1.11937E+11
P	5.44187E+05
S	9.35628E+20
Cl	2.56569E+09
Ar	3.82346E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.49569E+07
As	1.13335E+16
Se	4.44439E+07
Br	3.54167E+15
Kr	2.01377E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	8.77066E+05
In	3.12104E-07
Sn	1.97586E+05
Sb	1.16227E+15
Te	1.18690E+07
I	3.90207E-03
Xe	2.31727E+06
Cs	3.70582E+05
Ba	2.08115E+17
La	1.92141E+06
Ce	9.76094E-02
Pr	3.14818E-02
Nd	2.26459E+04
Pm	4.91888E+04
Sm	1.88252E+15
Eu	8.96568E+07
Gd	6.18695E+05
Lu	0.00000E+00
Hf	1.00753E-02
Ta	1.36667E+04
W	7.69706E+14
Re	1.43125E+06
Hg	1.17492E-01
Tl	5.26029E-01
Pb	4.78079E+15
Bi	1.22146E+03
Th	-1.35655E-02
U	1.18888E+15
Np	1.08021E+05

Attachment G1: ANITA Output for Concrete Based on Long Term Activation Multiple Years

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
340.4 (d)		4.3808E-13	1.847787E+04	1.9308E-01	2.7548E+01	7.4455E-10	2.9770E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 340.42 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.5290E-02	4.5981E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.2991E-01	2.2991E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 340.42 (d)

COMPOSITION :

ELEMENT ATOMES/cm3

H	3.46436E+08
He	1.28771E+10
Na	1.09073E+19
Mg	2.98632E+08
Al	1.10676E+22
Si	1.11937E+11
P	5.01891E+01
S	9.35628E+20
Cl	2.63695E+09
Ar	3.19581E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.49689E+07
As	1.13335E+16
Se	4.45543E+07
Br	3.54167E+15
Kr	2.01596E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	8.91331E+05
In	0.00000E+00
Sn	1.98829E+05
Sb	1.16227E+15
Te	1.20525E+07
I	4.02939E-03
Xe	2.39278E+06
Cs	3.69141E+05
Ba	2.08115E+17
La	1.92166E+06
Ce	9.83753E-02
Pr	3.14889E-02
Nd	2.44712E+04
Pm	5.04628E+04
Sm	1.88252E+15
Eu	9.00441E+07
Gd	6.55125E+05
Lu	0.00000E+00
Hf	1.00754E-02
Ta	1.41860E+04
W	7.69706E+14
Re	1.44377E+06
Hg	1.16063E-01
Tl	5.27829E-01
Pb	4.78079E+15
Bi	1.22185E+03
Th	-1.15364E-02
U	1.18888E+15
Np	3.29092E-39
Pu	1.97566E+07
Totals:	4.41291E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.601E+02	2.256E+03	6.098E-02	1.742E-04	1.003E-09	1.847787E+04
340.4 (d)	4.827E-08	1.172E+01	2.755E+01	7.445E-04	2.977E-05	4.381E-13	1.847787E+04

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.256E+03	3.795E-04	1.742E-04	1.003E-09
340.4 (d)	2.755E+01	4.827E-08	2.977E-05	4.381E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.601E+05	4.267E-10	2.595E-05	1.518E+03
340.4 (d)	1.172E+04	1.864E-13	3.168E-07	1.931E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.601E+02	3.795E-04	4.267E-10	2.768E+03
340.4 (d)	1.172E+01	4.827E-08	1.864E-13	4.263E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals : 2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)	
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals : 2

Cooling Times (s) :

3.0155E+07

349.0 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.

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        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :   2

Elapsed Time   :       1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :       2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :       3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :       4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :       5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :       6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :       7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16
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Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
```

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 22.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3808E-13	1.847787E+04	1.9308E-01	2.7548E+01	7.4455E-10	2.9770E-05

Step : 24
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 23.03 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.0405E+11								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	6.8608E+06	4.9210E-15	5.3670E-08	0.0000E+00	6.2907E-01	1.7002E-11	4.8390E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	4.3731E+07	4.2978E-15	1.8768E-08	1.3786E-03	1.0014E+01	2.7066E-10	8.4155E-07	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	4.5077E+11	5.0525E-17	2.3687E-04	1.7884E-05	9.6149E-02	2.5986E-12	2.7869E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	6.0645E+08	3.6991E-13	7.5018E-06	0.0000E+00	2.9904E+01	8.0822E-10	2.2655E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.3899E+05	9.5107E-14	5.3793E-08	1.9067E-01	4.2254E-01	1.1420E-11	6.7606E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.4880E+05	1.5495E-14	6.4615E-09	1.6480E-02	3.5682E-01	9.6439E-12	1.9288E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.1713E+09	1.6456E-14	2.0490E-06	1.2392E-02	1.7437E+01	4.7128E-10	5.7549E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	1.5213E+07	5.7434E-13	3.1855E-06	1.3880E+00	2.7428E+00	7.4131E-11	4.9332E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6378E-08	1.4869E-01	8.0640E-01	2.1795E-11	1.2902E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								

Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0335E+05	8.8265E-14	2.1408E-08	4.3844E-02	1.6630E+00	4.4946E-11	1.2319E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0711E+05	2.6017E-14	7.6364E-09	2.8292E-02	3.6493E-01	9.8630E-12	2.9195E-07	2.355E+00 (d)	Np239
here are	114 Nuclides.								

Totals:	4.4129E+22	1.0024E-09	1.847787E+04	1.5172E+03	2.2377E+03	6.0478E-08	1.6247E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 23.03 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.55350E+08
He	1.32084E+10
Na	1.09073E+19
Mg	3.05882E+08
Al	1.10676E+22
Si	1.14817E+11
P	3.93543E+05
S	9.35628E+20
Cl	2.65499E+09
Ar	3.71665E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.53420E+07
As	1.13335E+16
Se	4.55902E+07
Br	3.54167E+15
Kr	2.06563E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	9.04632E+05
In	3.12104E-07
Sn	2.02720E+05
Sb	1.16227E+15

Te	1.22220E+07
I	4.04372E-03
Xe	2.39950E+06
Cs	3.85160E+05
Ba	2.08115E+17
La	1.97082E+06
Ce	1.00164E-01
Pr	3.22919E-02
Nd	2.45577E+04
Pm	5.05078E+04
Sm	1.88252E+15
Eu	9.19671E+07
Gd	6.56791E+05
Lu	0.00000E+00
Hf	1.03345E-02
Ta	1.42098E+04
W	7.69706E+14
Re	1.47160E+06
Hg	1.20038E-01
Tl	5.32668E-01
Pb	4.78079E+15
Bi	1.25323E+03
Th	-1.14406E-02
U	1.18888E+15
Np	1.07113E+05
Pu	2.01572E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0977E-01	1.9958E+00
2	(0.1 -> 0.2 MeV)	1.3477E-01	8.6952E-01
3	(0.2 -> 0.4 MeV)	2.5790E-01	8.5967E-01
4	(0.4 -> 0.6 MeV)	2.2041E+00	4.4082E+00
5	(0.6 -> 0.8 MeV)	5.7780E-02	8.2542E-02
6	(0.8 -> 1.0 MeV)	5.0432E+00	5.6036E+00
7	(1.0 ->1.22 MeV)	1.8492E+00	1.6660E+00
8	(1.22 ->1.44 MeV)	1.0300E+01	7.7443E+00
9	(1.44 ->1.66 MeV)	5.8869E+01	3.7980E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.5724E+01	1.6660E+00	5.6036E+00	8.2542E-02
4.4082E+00	4.2984E-01	4.2984E-01	8.6952E-01	9.9792E-01	9.9792E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 349.02 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.0405E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	4.5077E+11	5.0525E-17	2.3687E-04	1.7884E-05	9.6149E-02	2.5986E-12	2.7869E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.3709E+08	8.3622E-14	1.6958E-06	0.0000E+00	6.7600E+00	1.8270E-10	5.1212E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50

V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.7043E+09	1.2916E-14	1.6083E-06	9.7271E-03	1.3687E+01	3.6992E-10	4.5171E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
349.0 (d)		4.0177E-13	1.847787E+04	1.9205E-01	2.3284E+01	6.2930E-10	2.7155E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 349.02 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.2894E-02	4.1626E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09

9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.0813E-01	2.0813E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 349.02 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.55350E+08
He	1.32084E+10
Na	1.09073E+19
Mg	3.06315E+08
Al	1.10676E+22
Si	1.14817E+11
P	2.86988E+01
S	9.35628E+20
Cl	2.70511E+09
Ar	3.27212E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.53540E+07
As	1.13335E+16
Se	4.57005E+07
Br	3.54167E+15
Kr	2.06782E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	9.14606E+05
In	0.00000E+00
Sn	2.03944E+05
Sb	1.16227E+15
Te	1.23637E+07
I	4.13314E-03
Xe	2.45434E+06
Cs	3.94451E+05
Ba	2.08115E+17
La	1.97108E+06
Ce	1.00906E-01
Pr	3.22990E-02
Nd	2.64652E+04
Pm	5.11306E+04
Sm	1.88252E+15
Eu	9.23550E+07
Gd	6.92205E+05
Lu	0.00000E+00
Hf	1.03346E-02
Ta	1.45811E+04
W	7.69706E+14
Re	1.48109E+06
Hg	1.19047E-01
Tl	5.34058E-01
Pb	4.78079E+15
Bi	1.25362E+03
Th	-9.30665E-03
U	1.18888E+15
Np	2.59244E-40
Pu	2.02645E+07
Totals:	4.41291E+22

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3

zero	3.793E-04	9.522E+02	2.238E+03	6.048E-02	1.625E-04	1.002E-09	1.847787E+04
349.0 (d)	4.801E-08	9.908E+00	2.328E+01	6.293E-04	2.715E-05	4.018E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.238E+03	3.793E-04	1.625E-04	1.002E-09
349.0 (d)	2.328E+01	4.801E-08	2.715E-05	4.018E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.522E+05	4.266E-10	2.574E-05	1.517E+03
349.0 (d)	9.908E+03	1.710E-13	2.678E-07	1.921E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.522E+02	3.793E-04	4.266E-10	2.768E+03
349.0 (d)	9.908E+00	4.801E-08	1.710E-13	4.238E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	

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Step   22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)     21.05 (y)        Intervals :  2
            Cold Pause of  2.93940E+07(s), i.e.    340.21 (d)     21.98 (y)

Step   23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)     22.05 (y)        Intervals :  2
            Cold Pause of  2.94120E+07(s), i.e.    340.42 (d)     22.98 (y)

Step   24 : Activation of  1.38060E+06(s), i.e.     15.98 (d)     23.03 (y)        Intervals :  2
            Cold Pause of  3.01554E+07(s), i.e.    349.02 (d)     23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.      7.98 (d)     24.00 (y)        Intervals :  2

Cooling Times (s)  :

  3.0847E+07

   357.0 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :      26.35 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     365.00 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :   2

Elapsed Time   :       1.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       2.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :       2.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       3.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :       3.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       4.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :       4.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       5.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :       5.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05
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Step :  14

Elapsed Time    :      13.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :      13.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time    :      14.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :      14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time    :      15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :      15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time    :      16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :      16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time    :      17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :      17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time    :      18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :      18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time    :      19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :      19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time    :      20.07 (y)
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	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5176E+03	2.2707E+03	6.1371E-08	1.8661E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 20.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.8162E-13	1.847787E+04	1.9386E-01	3.2083E+01	8.6712E-10	3.2736E-05

Step : 22

Elapsed Time : 21.05 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2555E+03	6.0960E-08	1.7656E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 21.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4663E-13	1.847787E+04	1.9343E-01	2.8697E+01	7.7558E-10	3.0429E-05

Step : 23

Elapsed Time : 22.05 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5170E+03	2.2520E+03	6.0865E-08	1.7418E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 22.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3808E-13	1.847787E+04	1.9308E-01	2.7548E+01	7.4455E-10	2.9770E-05

Step : 24

Elapsed Time : 23.03 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0021E-09	1.847787E+04	1.5164E+03	2.2335E+03	6.0365E-08	1.6247E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 23.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0177E-13	1.847787E+04	1.9205E-01	2.3284E+01	6.2930E-10	2.7155E-05

Step : 25
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 24.00 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3298E+05	4.1685E-12	3.2440E-07	9.7646E+00	5.5638E+00	1.5037E-10	2.3879E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.0535E+11								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	3.6368E+06	2.6085E-15	2.8450E-08	0.0000E+00	3.3346E-01	9.0123E-12	2.5650E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	2.3568E+07	2.3162E-15	1.0115E-08	7.4296E-04	5.3971E+00	1.4587E-10	4.5354E-07	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3032E+07	5.5664E-11	3.5774E-06	2.5575E+01	2.0278E+02	5.4806E-09	8.7031E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	4.5641E+11	5.1158E-17	2.3984E-04	1.8108E-05	9.7353E-02	2.6312E-12	2.8218E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	3.4826E+08	2.1243E-13	4.3080E-06	0.0000E+00	1.7173E+01	4.6412E-10	1.3010E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	1.8440E+05	7.3383E-14	4.1506E-08	1.4711E-01	3.2602E-01	8.8115E-12	5.2164E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								

Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.8492E+09	1.4015E-14	1.7451E-06	1.0554E-02	1.4851E+01	4.0137E-10	4.9013E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	8.0817E+06	3.0512E-13	1.6923E-06	7.3738E-01	1.4571E+00	3.9382E-11	2.6208E-06	4.450E+01 (d)	Fe 59
Co 59	1.4406E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 60ml	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60ml
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.0953E+05	1.9172E-13	2.6209E-08	1.4773E-01	8.0123E-01	2.1655E-11	1.2820E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	3.8112E+05	8.3400E-14	2.0228E-08	4.1428E-02	1.5714E+00	4.2469E-11	1.1640E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	9.7703E+04	2.3732E-14	6.9656E-09	2.5807E-02	3.3287E-01	8.9966E-12	2.6630E-07	2.355E+00 (d)	Np239

here are 113 Nuclides.

Totals:	4.4129E+22	1.0020E-09	1.847787E+04	1.5165E+03	2.2156E+03	5.9881E-08	1.4859E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 24.00 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.59800E+08
He	1.33739E+10
Na	1.09073E+19
Mg	3.09720E+08
Al	1.10676E+22
Si	1.16257E+11
P	2.17872E+05
S	9.35628E+20
Cl	2.71228E+09
Ar	3.54942E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.55343E+07
As	1.13335E+16
Se	4.61632E+07
Br	3.54167E+15
Kr	2.09157E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	9.20723E+05
In	3.12104E-07
Sn	2.05413E+05
Sb	1.16227E+15
Te	1.24267E+07
I	4.13690E-03
Xe	2.45541E+06
Cs	4.00124E+05
Ba	2.08115E+17
La	1.99552E+06
Ce	1.01549E-01
Pr	3.26963E-02
Nd	2.65089E+04
Pm	5.11343E+04
Sm	1.88252E+15
Eu	9.31354E+07
Gd	6.92978E+05
Lu	0.00000E+00
Hf	1.04640E-02
Ta	1.45878E+04
W	7.69706E+14
Re	1.49352E+06
Hg	1.21062E-01
Tl	5.20824E-01
Pb	4.78079E+15
Bi	1.26901E+03
Th	-1.12108E-02
U	1.18888E+15
Np	9.77027E+04
Pu	2.04199E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0075E-01	1.8319E+00
2	(0.1 -> 0.2 MeV)	8.1581E-02	5.2633E-01
3	(0.2 -> 0.4 MeV)	2.5382E-01	8.4605E-01
4	(0.4 -> 0.6 MeV)	2.1995E+00	4.3991E+00
5	(0.6 -> 0.8 MeV)	5.7391E-02	8.1987E-02
6	(0.8 -> 1.0 MeV)	5.0381E+00	5.5979E+00
7	(1.0 ->1.22 MeV)	1.0475E+00	9.4371E-01
8	(1.22 ->1.44 MeV)	9.4891E+00	7.1346E+00
9	(1.44 ->1.66 MeV)	5.8866E+01	3.7978E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3619E+00	1.0497E+00
12	(2.5 -> 3.0 MeV)	1.5624E+01	5.6815E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6815E+00
1.0497E+00	1.8385E+03	4.5113E+01	9.4371E-01	5.5979E+00	8.1987E-02
4.3991E+00	4.2303E-01	4.2303E-01	5.2633E-01	9.1594E-01	9.1594E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 357.02 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.0535E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	4.5641E+11	5.1157E-17	2.3984E-04	1.8107E-05	9.7352E-02	2.6311E-12	2.8218E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	7.6088E+07	4.6411E-14	9.4121E-07	0.0000E+00	3.7519E+00	1.0140E-10	2.8424E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.4434E+09	1.0939E-14	1.3621E-06	8.2383E-03	1.1592E+01	3.1330E-10	3.8258E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							

Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
357.0 (d)		3.6259E-13	1.847787E+04	1.9057E-01	1.8182E+01	4.9141E-10	2.4185E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 357.02 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.9413E-02	3.5296E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.7648E-01	1.7648E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 357.02 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.59800E+08
He	1.33739E+10
Na	1.09073E+19
Mg	3.10153E+08
Al	1.10676E+22
Si	1.16257E+11
P	1.27712E+01
S	9.35628E+20
Cl	2.73925E+09
Ar	3.30603E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.55463E+07
As	1.13335E+16
Se	4.62729E+07
Br	3.54167E+15
Kr	2.09372E+07
Rb	2.98003E+16

Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	9.26378E+05
In	0.00000E+00
Sn	2.06498E+05
Sb	1.16227E+15
Te	1.25194E+07
I	4.18497E-03
Xe	2.48508E+06
Cs	4.18786E+05
Ba	2.08115E+17
La	1.99578E+06
Ce	1.02170E-01
Pr	3.27035E-02
Nd	2.84665E+04
Pm	5.09317E+04
Sm	1.88252E+15
Eu	9.35041E+07
Gd	7.25953E+05
Lu	0.00000E+00
Hf	1.04640E-02
Ta	1.47922E+04
W	7.69706E+14
Re	1.49979E+06
Hg	1.20537E-01
Tl	5.21773E-01
Pb	4.78079E+15
Bi	1.26940E+03
Th	-9.00066E-03
U	1.18888E+15
Np	2.24488E-41
Pu	2.05178E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.791E-04	9.428E+02	2.216E+03	5.988E-02	1.486E-04	1.002E-09	1.847787E+04
357.0 (d)	4.764E-08	7.737E+00	1.818E+01	4.914E-04	2.418E-05	3.626E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete Sl :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.216E+03	3.791E-04	1.486E-04	1.002E-09
357.0 (d)	1.818E+01	4.764E-08	2.418E-05	3.626E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.428E+05	4.264E-10	2.548E-05	1.517E+03
357.0 (d)	7.737E+03	1.543E-13	2.091E-07	1.906E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.428E+02	3.791E-04	4.264E-10	2.767E+03
357.0 (d)	7.737E+00	4.764E-08	1.543E-13	4.204E-01

			Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2

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                Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      7.99 (y)

        Step    9 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      8.07 (y)        Intervals :  2
                    Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      8.99 (y)

        Step   10 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      9.07 (y)        Intervals :  2
                    Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      9.99 (y)

        Step   11 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     10.06 (y)        Intervals :  2
                    Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     10.99 (y)

        Step   12 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     11.06 (y)        Intervals :  2
                    Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     11.99 (y)

        Step   13 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     12.06 (y)        Intervals :  2
                    Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     12.99 (y)

        Step   14 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     13.06 (y)        Intervals :  2
                    Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     13.99 (y)

        Step   15 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     14.06 (y)        Intervals :  2
                    Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     14.99 (y)

        Step   16 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     15.06 (y)        Intervals :  2
                    Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     15.99 (y)

        Step   17 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     16.06 (y)        Intervals :  2
                    Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     16.99 (y)

        Step   18 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     17.06 (y)        Intervals :  2
                    Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     17.99 (y)

        Step   19 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     18.06 (y)        Intervals :  2
                    Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     18.99 (y)

        Step   20 : Activation of  3.31020E+06(s), i.e.      38.31 (d)     19.09 (y)        Intervals :  2
                    Cold Pause of  2.82258E+07(s), i.e.     326.69 (d)     19.98 (y)

        Step   21 : Activation of  2.82600E+06(s), i.e.      32.71 (d)     20.07 (y)        Intervals :  2
                    Cold Pause of  2.87100E+07(s), i.e.     332.29 (d)     20.98 (y)

        Step   22 : Activation of  2.14200E+06(s), i.e.      24.79 (d)     21.05 (y)        Intervals :  2
                    Cold Pause of  2.93940E+07(s), i.e.     340.21 (d)     21.98 (y)

        Step   23 : Activation of  2.12400E+06(s), i.e.      24.58 (d)     22.05 (y)        Intervals :  2
                    Cold Pause of  2.94120E+07(s), i.e.     340.42 (d)     22.98 (y)

        Step   24 : Activation of  1.38060E+06(s), i.e.      15.98 (d)     23.03 (y)        Intervals :  2
                    Cold Pause of  3.01554E+07(s), i.e.     349.02 (d)     23.98 (y)

        Step   25 : Activation of  6.89330E+05(s), i.e.       7.98 (d)     24.00 (y)        Intervals :  2
                    Cold Pause of  3.08467E+07(s), i.e.     357.02 (d)     24.98 (y)

        Step   26 : Activation of  2.37945E+06(s), i.e.      27.54 (d)     25.06 (y)        Intervals :  2

Cooling Times (s)  :

   2.9157E+07

    337.5 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :       3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time    :       3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :       4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time    :       4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :       5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time    :       5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :       6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time    :       6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :       6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time    :       7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :       7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time    :       8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :       8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time    :       9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05
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Step :  18

Elapsed Time    :     17.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     17.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time    :     18.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     18.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time    :     19.09 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     19.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time    :     20.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     20.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time    :     21.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     21.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time    :     22.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     22.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time    :     23.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     23.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time    :     24.00 (y)
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	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0016E-09	1.847787E+04	1.5157E+03	2.2114E+03	5.9768E-08	1.4859E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 24.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	3.6259E-13	1.847787E+04	1.9057E-01	1.8182E+01	4.9141E-10	2.4185E-05

Step : 26
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 25.06 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.0985E+11								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0513E+07	7.5409E-15	8.2244E-08	0.0000E+00	9.6397E-01	2.6053E-11	7.4152E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.7706E+07	6.6539E-15	2.9057E-08	2.1344E-03	1.5505E+01	4.1904E-10	1.3029E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	4.7590E+11	5.3342E-17	2.5008E-04	1.8881E-05	1.0151E-01	2.7435E-12	2.9423E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	7.8237E+08	4.7722E-13	9.6779E-06	0.0000E+00	3.8578E+01	1.0427E-09	2.9226E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5789E+05	1.0263E-13	5.8047E-08	2.0574E-01	4.5595E-01	1.2323E-11	7.2952E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8387E+05	1.9147E-14	7.9844E-09	2.0364E-02	4.4093E-01	1.1917E-11	2.3834E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.9452E+09	1.4742E-14	1.8357E-06	1.1102E-02	1.5622E+01	4.2222E-10	5.1558E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3969E+07	9.0492E-13	5.0190E-06	2.1869E+00	4.3215E+00	1.1680E-10	7.7725E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								

Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0469E+05	8.8559E-14	2.1479E-08	4.3990E-02	1.6686E+00	4.5096E-11	1.2360E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0807E+05	2.6249E-14	7.7044E-09	2.8544E-02	3.6818E-01	9.9508E-12	2.9455E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5181E+03	2.2521E+03	6.0867E-08	1.7210E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 25.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.75161E+08
He	1.39449E+10
Na	1.09073E+19
Mg	3.22961E+08
Al	1.10676E+22
Si	1.21219E+11
P	5.88289E+05
S	9.35628E+20
Cl	2.77824E+09
Ar	4.12806E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.61981E+07
As	1.13335E+16
Se	4.81381E+07
Br	3.54167E+15
Kr	2.18092E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	9.50087E+05
In	3.12104E-07

Sn	2.14071E+05
Sb	1.16227E+15
Te	1.28564E+07
I	4.22459E-03
Xe	2.50999E+06
Cs	4.49247E+05
Ba	2.08115E+17
La	2.08071E+06
Ce	1.05764E-01
Pr	3.40927E-02
Nd	2.86170E+04
Pm	5.09661E+04
Sm	1.88252E+15
Eu	9.71092E+07
Gd	7.28527E+05
Lu	0.00000E+00
Hf	1.09107E-02
Ta	1.48441E+04
W	7.69706E+14
Re	1.55020E+06
Hg	1.27245E-01
Tl	5.30307E-01
Pb	4.78079E+15
Bi	1.32378E+03
Th	-1.07815E-02
U	1.18888E+15
Np	1.08066E+05
Pu	2.12852E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0825E-01	1.9682E+00
2	(0.1 -> 0.2 MeV)	1.5604E-01	1.0067E+00
3	(0.2 -> 0.4 MeV)	2.5973E-01	8.6575E-01
4	(0.4 -> 0.6 MeV)	2.2052E+00	4.4104E+00
5	(0.6 -> 0.8 MeV)	5.7831E-02	8.2616E-02
6	(0.8 -> 1.0 MeV)	5.0450E+00	5.6055E+00
7	(1.0 ->1.22 MeV)	2.8332E+00	2.5524E+00
8	(1.22 ->1.44 MeV)	1.1211E+01	8.4295E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6410E+01	2.5524E+00	5.6055E+00	8.2616E-02
4.4104E+00	4.3288E-01	4.3288E-01	1.0067E+00	9.8411E-01	9.8411E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 337.46 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.0985E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	4.7589E+11	5.3341E-17	2.5008E-04	1.8881E-05	1.0151E-01	2.7435E-12	2.9423E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.8579E+08	1.1333E-13	2.2982E-06	0.0000E+00	9.1613E+00	2.4760E-10	6.9404E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							

Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.5391E+09	1.1665E-14	1.4525E-06	8.7846E-03	1.2361E+01	3.3407E-10	4.0795E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
337.5 (d)		4.3023E-13	1.847787E+04	1.9111E-01	2.4364E+01	6.5850E-10	2.8538E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 337.46 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.0692E-02	3.7622E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09

```
Step   21 : Activation of  2.82600E+06(s), i.e.     32.71 (d)     20.07 (y)        Intervals :  2
            Cold Pause of  2.87100E+07(s), i.e.    332.29 (d)     20.98 (y)

Step   22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)     21.05 (y)        Intervals :  2
            Cold Pause of  2.93940E+07(s), i.e.    340.21 (d)     21.98 (y)

Step   23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)     22.05 (y)        Intervals :  2
            Cold Pause of  2.94120E+07(s), i.e.    340.42 (d)     22.98 (y)

Step   24 : Activation of  1.38060E+06(s), i.e.     15.98 (d)     23.03 (y)        Intervals :  2
            Cold Pause of  3.01554E+07(s), i.e.    349.02 (d)     23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.      7.98 (d)     24.00 (y)        Intervals :  2
            Cold Pause of  3.08467E+07(s), i.e.    357.02 (d)     24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.     27.54 (d)     25.06 (y)        Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.    337.46 (d)     25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)     26.06 (y)        Intervals :  2

Cooling Times (s)  :

  2.9085E+07

   336.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05


Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05
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```
Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05


Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05


Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05


Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05


Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05


Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05


Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05


Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27
     AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time  :     26.06 (y)          Cooling Time 0.

Nuclide     N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     4.3305E+05   4.1691E-12   3.2444E-07   9.7660E+00   5.5646E+00   1.5040E-10   2.3883E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
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Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.1448E+11								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.1196E+07	8.0304E-15	8.7582E-08	0.0000E+00	1.0265E+00	2.7744E-11	7.8965E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.9252E+07	6.8059E-15	2.9720E-08	2.1831E-03	1.5859E+01	4.2861E-10	1.3327E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	4.9596E+11	5.5591E-17	2.6062E-04	1.9677E-05	1.0579E-01	2.8592E-12	3.0664E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.9944E+08	5.4863E-13	1.1126E-05	0.0000E+00	4.4351E+01	1.1987E-09	3.3599E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5835E+05	1.0281E-13	5.8151E-08	2.0611E-01	4.5676E-01	1.2345E-11	7.3082E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8488E+05	1.9252E-14	8.0283E-09	2.0476E-02	4.4335E-01	1.1982E-11	2.3965E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.0539E+09	1.5566E-14	1.9383E-06	1.1723E-02	1.6495E+01	4.4581E-10	5.4439E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.4598E+07	9.2869E-13	5.1508E-06	2.2443E+00	4.4350E+00	1.1987E-10	7.9767E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148

Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0470E+05	8.8560E-14	2.1479E-08	4.3991E-02	1.6686E+00	4.5097E-11	1.2360E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0807E+05	2.6251E-14	7.7049E-09	2.8546E-02	3.6821E-01	9.9515E-12	2.9456E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals:	4.4129E+22	1.0030E-09	1.847787E+04	1.5181E+03	2.2593E+03	6.1062E-08	1.7705E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 26.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.90982E+08
He	1.45330E+10
Na	1.09073E+19
Mg	3.36597E+08
Al	1.10676E+22
Si	1.26330E+11
P	5.99971E+05
S	9.35628E+20
Cl	2.89646E+09
Ar	4.28521E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.68817E+07
As	1.13335E+16
Se	5.01727E+07
Br	3.54167E+15
Kr	2.27298E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	9.90058E+05
In	3.12104E-07
Sn	2.23150E+05
Sb	1.16227E+15
Te	1.34016E+07
I	4.40537E-03
Xe	2.61780E+06
Cs	4.75023E+05
Ba	2.08115E+17
La	2.16846E+06
Ce	1.10256E-01
Pr	3.55307E-02
Nd	3.06337E+04
Pm	5.16338E+04
Sm	1.88252E+15
Eu	1.01227E+08
Gd	7.63131E+05
Lu	0.00000E+00
Hf	1.13708E-02
Ta	1.54305E+04
W	7.69706E+14
Re	1.61560E+06
Hg	1.32582E-01
Tl	5.41094E-01

Pb	4.78079E+15
Bi	1.37956E+03
Th	-1.03713E-02
U	1.18888E+15
Np	1.08073E+05
Pu	2.21871E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0979E-01	1.9961E+00
2	(0.1 -> 0.2 MeV)	1.5715E-01	1.0139E+00
3	(0.2 -> 0.4 MeV)	2.5984E-01	8.6613E-01
4	(0.4 -> 0.6 MeV)	2.2052E+00	4.4104E+00
5	(0.6 -> 0.8 MeV)	5.7833E-02	8.2618E-02
6	(0.8 -> 1.0 MeV)	5.0450E+00	5.6056E+00
7	(1.0 ->1.22 MeV)	2.9039E+00	2.6161E+00
8	(1.22 ->1.44 MeV)	1.1275E+01	8.4776E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6458E+01	2.6161E+00	5.6056E+00	8.2618E-02
4.4104E+00	4.3306E-01	4.3306E-01	1.0139E+00	9.9806E-01	9.9806E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 336.64 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.1448E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	4.9596E+11	5.5591E-17	2.6062E-04	1.9677E-05	1.0579E-01	2.8591E-12	3.0663E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.1434E+08	1.3074E-13	2.6514E-06	0.0000E+00	1.0569E+01	2.8565E-10	8.0069E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.6261E+09	1.2324E-14	1.5345E-06	9.2807E-03	1.3059E+01	3.5294E-10	4.3099E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							

Zn 66	1.2682E+16
Zn 67	1.8637E+15
Zn 68	8.5456E+15
Zn 70	2.7273E+14
Ga 69	6.1006E+15

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
336.6 (d)		4.4830E-13	1.847787E+04	1.9161E-01	2.6475E+01	7.1553E-10	2.9836E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 336.64 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.1854E-02	3.9735E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.9868E-01	1.9868E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 336.64 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.90982E+08
He	1.45330E+10
Na	1.09073E+19
Mg	3.37030E+08
Al	1.10676E+22
Si	1.26330E+11
P	6.13478E+01
S	9.35628E+20
Cl	2.97604E+09
Ar	3.58550E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.68936E+07
As	1.13335E+16
Se	5.02831E+07
Br	3.54167E+15
Kr	2.27517E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.00622E+06
In	0.00000E+00
Sn	2.24395E+05
Sb	1.16227E+15
Te	1.36021E+07
I	4.54748E-03
Xe	2.70045E+06
Cs	4.69034E+05
Ba	2.08115E+17
La	2.16872E+06
Ce	1.11025E-01
Pr	3.55377E-02
Nd	3.25213E+04
Pm	5.26229E+04
Sm	1.88252E+15
Eu	1.01620E+08
Gd	7.95803E+05
Lu	0.00000E+00
Hf	1.13709E-02
Ta	1.60088E+04
W	7.69706E+14
Re	1.62940E+06
Hg	1.30977E-01
Tl	5.43135E-01
Pb	4.78079E+15
Bi	1.37995E+03
Th	-8.10674E-03
U	1.18888E+15
Np	1.00179E-38
Pu	2.22954E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.614E+02	2.259E+03	6.106E-02	1.771E-04	1.003E-09	1.847787E+04
336.6 (d)	4.790E-08	1.127E+01	2.647E+01	7.155E-04	2.984E-05	4.483E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.259E+03	3.795E-04	1.771E-04	1.003E-09
336.6 (d)	2.647E+01	4.790E-08	2.984E-05	4.483E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.614E+05	4.268E-10	2.598E-05	1.518E+03
336.6 (d)	1.127E+04	1.908E-13	3.045E-07	1.916E-01

AJBRF Reactor AJBRF Soil (Side) Flux

AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.614E+02	3.795E-04	4.268E-10	2.768E+03
336.6 (d)	1.127E+01	4.790E-08	1.908E-13	4.235E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals : 2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)	
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals : 2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)	
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals : 2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)	
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals : 2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)	
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals : 2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)	
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals : 2

Cooling Times (s) :

2.7352E+07

316.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2411E+03	6.0571E-08	1.7080E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3024E-13	1.847787E+04	1.8637E-01	1.8127E+01	4.8992E-10	2.6703E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2451E+03	6.0678E-08	1.7275E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3648E-13	1.847787E+04	1.8775E-01	2.0433E+01	5.5225E-10	2.7616E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2473E+03	6.0738E-08	1.7362E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 4.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3884E-13	1.847787E+04	1.8882E-01	2.2017E+01	5.9504E-10	2.8170E-05

Step : 5

Elapsed Time : 4.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2489E+03	6.0780E-08	1.7416E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 5.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4014E-13	1.847787E+04	1.8965E-01	2.3204E+01	6.2714E-10	2.8569E-05

Step : 6

Elapsed Time : 5.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2500E+03	6.0812E-08	1.7455E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4104E-13	1.847787E+04	1.9029E-01	2.4118E+01	6.5184E-10	2.8872E-05

Step : 7

Elapsed Time : 6.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2509E+03	6.0836E-08	1.7485E-04

Production of H : 0. appm/y.

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        Production of He  :      0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22
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Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28
     AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     27.11 (y)          Cooling Time 0.

Nuclide     N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     4.3305E+05   4.1691E-12   3.2444E-07   9.7660E+00   5.5646E+00   1.5040E-10   2.3883E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28     1.2239E+11
 P 33     8.1641E+05   3.1637E-15   1.0015E-08   0.0000E+00   2.5790E-01   6.9704E-12   6.1848E-08   2.540E+01 (d)    P 33
 S 32     8.8903E+20
 S 33     7.0172E+18
 S 34     3.9390E+19
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S 35	1.7338E+07	1.2436E-14	1.3563E-07	0.0000E+00	1.5898E+00	4.2966E-11	1.2229E-06	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	9.9358E+07	9.7647E-15	4.2641E-08	3.1322E-03	2.2753E+01	6.1495E-10	1.9120E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03 (My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	5.3023E+11	5.9431E-17	2.7863E-04	2.1036E-05	1.1310E-01	3.0567E-12	3.2782E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	1.3779E+09	8.4044E-13	1.7044E-05	0.0000E+00	6.7942E+01	1.8363E-09	5.1471E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.6163E+05	1.0411E-13	5.8889E-08	2.0872E-01	4.6256E-01	1.2502E-11	7.4009E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.9259E+05	2.0054E-14	8.3628E-09	2.1329E-02	4.6182E-01	1.2482E-11	2.4963E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11 (My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.4960E+09	1.8917E-14	2.3555E-06	1.4246E-02	2.0046E+01	5.4177E-10	6.6157E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Fe 59	3.6424E+07	1.3752E-12	7.6272E-06	3.3234E+00	6.5673E+00	1.7749E-10	1.1812E-05	4.450E+01 (d)	Fe 59
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04 (My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05 (My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09 (My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09 (My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0472E+05	8.8564E-14	2.1480E-08	4.3993E-02	1.6686E+00	4.5098E-11	1.2360E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								

W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W184	2.3584E+14								
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0810E+05	2.6257E-14	7.7068E-09	2.8553E-02	3.6829E-01	9.9539E-12	2.9463E-07	2.355E+00 (d)	Np239
here are	115 Nuclides.								
Totals:	4.4129E+22	1.0037E-09	1.847787E+04	1.5192E+03	2.2963E+03	6.2062E-08	2.0103E-04		

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 27.11 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.17994E+08
He	1.55369E+10
Na	1.09073E+19
Mg	3.59881E+08
Al	1.10676E+22
Si	1.35056E+11
P	8.16413E+05
S	9.35628E+20
Cl	3.06588E+09
Ar	4.83337E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.80488E+07
As	1.13335E+16
Se	5.36466E+07
Br	3.54167E+15
Kr	2.43016E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.04984E+06
In	3.12104E-07
Sn	2.38652E+05
Sb	1.16227E+15
Te	1.42616E+07
I	4.65651E-03
Xe	2.78115E+06
Cs	5.16629E+05
Ba	2.08115E+17
La	2.31828E+06
Ce	1.17924E-01
Pr	3.79858E-02
Nd	3.27951E+04
Pm	5.29141E+04
Sm	1.88252E+15
Eu	1.08266E+08
Gd	8.00827E+05
Lu	0.00000E+00
Hf	1.21564E-02
Ta	1.61737E+04
W	7.69706E+14
Re	1.72189E+06
Hg	1.42419E-01
Tl	5.42880E-01
Pb	4.78079E+15
Bi	1.47534E+03
Th	-5.82223E-03
U	1.18888E+15
Np	1.08099E+05

Pu 2.37274E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1726E-01	2.1319E+00
2	(0.1 -> 0.2 MeV)	1.7503E-01	1.1292E+00
3	(0.2 -> 0.4 MeV)	2.6192E-01	8.7307E-01
4	(0.4 -> 0.6 MeV)	2.2054E+00	4.4108E+00
5	(0.6 -> 0.8 MeV)	5.7841E-02	8.2630E-02
6	(0.8 -> 1.0 MeV)	5.0453E+00	5.6059E+00
7	(1.0 ->1.22 MeV)	4.2329E+00	3.8134E+00
8	(1.22 ->1.44 MeV)	1.2468E+01	9.3743E+00
9	(1.44 ->1.66 MeV)	5.8872E+01	3.7982E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.7356E+01	3.8134E+00	5.6059E+00	8.2630E-02
4.4108E+00	4.3654E-01	4.3654E-01	1.1292E+00	1.0660E+00	1.0660E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 316.57 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.2239E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	5.3022E+11	5.9431E-17	2.7863E-04	2.1036E-05	1.1310E-01	3.0567E-12	3.2782E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	3.5765E+08	2.1815E-13	4.4241E-06	0.0000E+00	1.7636E+01	4.7664E-10	1.3360E-05	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	2.0038E+09	1.5186E-14	1.8910E-06	1.1437E-02	1.6092E+01	4.3493E-10	5.3110E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
316.6 (d)		5.3858E-13	1.847787E+04	1.9377E-01	3.6582E+01	9.8870E-10	3.6193E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 316.57 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.6899E-02	4.8908E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.4454E-01	2.4454E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 316.57 (d)

COMPOSITION :

ELEMENT ATOMES/cm3

H	4.17994E+08
He	1.55369E+10
Na	1.09073E+19
Mg	3.60314E+08
Al	1.10676E+22
Si	1.35056E+11
P	1.44341E+02
S	9.35628E+20
Cl	3.18098E+09
Ar	3.83355E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.80607E+07
As	1.13335E+16
Se	5.37570E+07
Br	3.54167E+15
Kr	2.43235E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.07510E+06
In	0.00000E+00
Sn	2.39897E+05
Sb	1.16227E+15
Te	1.45392E+07
I	4.86141E-03
Xe	2.88701E+06
Cs	4.96389E+05
Ba	2.08115E+17
La	2.31854E+06
Ce	1.18695E-01
Pr	3.79929E-02
Nd	3.46356E+04
Pm	5.50852E+04
Sm	1.88252E+15
Eu	1.08657E+08
Gd	8.35553E+05
Lu	0.00000E+00
Hf	1.21564E-02
Ta	1.70494E+04
W	7.69706E+14
Re	1.74156E+06
Hg	1.40035E-01
Tl	5.45695E-01
Pb	4.78079E+15
Bi	1.47572E+03
Th	-3.54548E-03
U	1.18888E+15
Np	3.67867E-36
Pu	2.38356E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.798E-04	9.771E+02	2.296E+03	6.206E-02	2.010E-04	1.004E-09	1.847787E+04
316.6 (d)	4.844E-08	1.557E+01	3.658E+01	9.887E-04	3.619E-05	5.386E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.296E+03	3.798E-04	2.010E-04	1.004E-09
316.6 (d)	3.658E+01	4.844E-08	3.619E-05	5.386E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.771E+05	4.271E-10	2.641E-05	1.519E+03
316.6 (d)	1.557E+04	2.292E-13	4.207E-07	1.938E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.771E+02	3.798E-04	4.271E-10	2.768E+03
316.6 (d)	1.557E+01	4.844E-08	2.292E-13	4.288E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals : 2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)	
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals : 2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)	
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals : 2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)	
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals : 2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)	
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals : 2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)	
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals : 2
	Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)	
Step 29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals : 2

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Cooling Times (s)  :

   2.8375E+07

    328.4 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :  .    0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05


Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05


Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05


Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
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Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05
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Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time   :     21.05 (y)
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            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      21.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05


Step :  23

Elapsed Time   :      22.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      22.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05


Step :  24

Elapsed Time   :      23.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      23.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05


Step :  25

Elapsed Time   :      24.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      24.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05


Step :  26

Elapsed Time   :      25.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      25.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05


Step :  27

Elapsed Time   :      26.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      26.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05


Step :  28

Elapsed Time   :      27.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      27.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05


Step :  29
     AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :      28.08 (y)          Cooling Time 0.

Nuclide      N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3          T/2
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Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.2836E+11								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.4329E+07	1.0278E-14	1.1209E-07	0.0000E+00	1.3139E+00	3.5510E-11	1.0107E-06	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	8.3093E+07	8.1662E-15	3.5660E-08	2.6194E-03	1.9028E+01	5.1428E-10	1.5990E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	5.5611E+11	6.2333E-17	2.9223E-04	2.2063E-05	1.1862E-01	3.2059E-12	3.4382E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	1.2377E+09	7.5495E-13	1.5310E-05	0.0000E+00	6.1031E+01	1.6495E-09	4.6235E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.6081E+05	1.0379E-13	5.8704E-08	2.0807E-01	4.6111E-01	1.2462E-11	7.3778E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.9054E+05	1.9841E-14	8.2740E-09	2.1102E-02	4.5691E-01	1.2349E-11	2.4698E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.6542E+09	2.0116E-14	2.5048E-06	1.5149E-02	2.1316E+01	5.7611E-10	7.0350E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.9970E+07	1.1315E-12	6.2757E-06	2.7345E+00	5.4036E+00	1.4604E-10	9.7188E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								

Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0471E+05	8.8563E-14	2.1480E-08	4.3992E-02	1.6686E+00	4.5098E-11	1.2360E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0810E+05	2.6256E-14	7.7066E-09	2.8552E-02	3.6829E-01	9.9537E-12	2.9463E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals:	4.4129E+22	1.0034E-09	1.847787E+04	1.5186E+03	2.2852E+03	6.1763E-08	1.9353E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 28.08 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.38399E+08
He	1.62954E+10
Na	1.09073E+19
Mg	3.77469E+08
Al	1.10676E+22
Si	1.41647E+11
P	7.03155E+05
S	9.35628E+20
Cl	3.24053E+09
Ar	4.85529E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.89304E+07
As	1.13335E+16
Se	5.62709E+07
Br	3.54167E+15
Kr	2.54890E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.10761E+06
In	3.12104E-07
Sn	2.50363E+05
Sb	1.16227E+15
Te	1.50146E+07
I	4.92800E-03
Xe	2.93321E+06
Cs	5.35999E+05
Ba	2.08115E+17
La	2.43144E+06
Ce	1.23719E-01
Pr	3.98405E-02
Nd	3.48521E+04
Pm	5.53538E+04
Sm	1.88252E+15
Eu	1.13578E+08
Gd	8.39677E+05
Lu	0.00000E+00
Hf	1.27498E-02

Ta	1.71639E+04
W	7.69706E+14
Re	1.81021E+06
Hg	1.48825E-01
Tl	5.41464E-01
Pb	4.78079E+15
Bi	1.54711E+03
Th	-1.32605E-03
U	1.18888E+15
Np	1.08097E+05
Pu	2.48908E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1853E-01	2.1550E+00
2	(0.1 -> 0.2 MeV)	1.6584E-01	1.0699E+00
3	(0.2 -> 0.4 MeV)	2.6079E-01	8.6929E-01
4	(0.4 -> 0.6 MeV)	2.2054E+00	4.4107E+00
5	(0.6 -> 0.8 MeV)	5.7839E-02	8.2627E-02
6	(0.8 -> 1.0 MeV)	5.0452E+00	5.6058E+00
7	(1.0 ->1.22 MeV)	3.5076E+00	3.1600E+00
8	(1.22 ->1.44 MeV)	1.1819E+01	8.8862E+00
9	(1.44 ->1.66 MeV)	5.8871E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6867E+01	3.1600E+00	5.6058E+00	8.2627E-02
4.4107E+00	4.3465E-01	4.3465E-01	1.0699E+00	1.0775E+00	1.0775E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 328.42 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.2836E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	5.5611E+11	6.2332E-17	2.9223E-04	2.2063E-05	1.1862E-01	3.2059E-12	3.4382E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	3.0546E+08	1.8632E-13	3.7785E-06	0.0000E+00	1.5062E+01	4.0709E-10	1.1411E-05	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	2.1133E+09	1.6016E-14	1.9943E-06	1.2062E-02	1.6972E+01	4.5871E-10	5.6014E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							

Ni 62	1.5767E+15
Ni 64	4.0178E+14
Cu 63	2.0027E+16
Cu 65	8.9265E+15
Zn 64	2.2091E+16
Zn 66	1.2682E+16
Zn 67	1.8637E+15
Zn 68	8.5456E+15
Zn 70	2.7273E+14
Ga 69	6.1006E+15

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
328.4 (d)		5.0758E-13	1.847787E+04	1.9439E-01	3.4894E+01	9.4308E-10	3.4535E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 328.42 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.8364E-02	5.1570E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.5785E-01	2.5785E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 328.42 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.38399E+08
He	1.62954E+10
Na	1.09073E+19
Mg	3.77902E+08
Al	1.10676E+22
Si	1.41648E+11
P	8.99789E+01
S	9.35628E+20
Cl	3.33677E+09
Ar	4.01677E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	1.89424E+07
As	1.13335E+16
Se	5.63813E+07
Br	3.54167E+15
Kr	2.55109E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.12812E+06
In	0.00000E+00
Sn	2.51608E+05
Sb	1.16227E+15
Te	1.52510E+07
I	5.09892E-03
Xe	3.02795E+06
Cs	5.24912E+05
Ba	2.08115E+17
La	2.43170E+06
Ce	1.24489E-01
Pr	3.98476E-02
Nd	3.68479E+04
Pm	5.75235E+04
Sm	1.88252E+15
Eu	1.13968E+08
Gd	8.77405E+05
Lu	0.00000E+00
Hf	1.27499E-02
Ta	1.79240E+04
W	7.69706E+14
Re	1.82688E+06
Hg	1.46866E-01
Tl	5.43892E-01
Pb	4.78079E+15
Bi	1.54750E+03
Th	1.15118E-03
U	1.18888E+15
Np	1.12607E-37
Pu	2.49990E+07
Totals:	4.41291E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.797E-04	9.724E+02	2.285E+03	6.176E-02	1.935E-04	1.003E-09	1.847787E+04
328.4 (d)	4.860E-08	1.485E+01	3.489E+01	9.431E-04	3.454E-05	5.076E-13	1.847787E+04

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete Sl :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.285E+03	3.797E-04	1.935E-04	1.003E-09
328.4 (d)	3.489E+01	4.860E-08	3.454E-05	5.076E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.724E+05	4.270E-10	2.628E-05	1.519E+03
328.4 (d)	1.485E+04	2.160E-13	4.013E-07	1.944E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.724E+02	3.797E-04	4.270E-10	2.768E+03
328.4 (d)	1.485E+01	4.860E-08	2.160E-13	4.297E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals : 2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)	
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals : 2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)	
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals : 2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)	
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals : 2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)	

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Step   27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)     26.06 (y)        Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.    336.64 (d)     26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.     48.43 (d)     27.11 (y)        Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.    316.57 (d)     27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.     36.58 (d)     28.08 (y)        Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.    328.42 (d)     28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)     29.11 (y)        Intervals :  2

Cooling Times (s)  :

  2.7245E+07

   315.3 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0572E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
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Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05
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Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
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            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05


Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05


Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05


Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05


Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05


Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05


Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05


Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
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Elapsed Time : 27.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	5.3858E-13	1.847787E+04	1.9377E-01	3.6582E+01	9.8870E-10	3.6193E-05

Step : 29

Elapsed Time : 28.08 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0031E-09	1.847787E+04	1.5178E+03	2.2810E+03	6.1650E-08	1.9353E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 28.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	5.0758E-13	1.847787E+04	1.9439E-01	3.4894E+01	9.4308E-10	3.4535E-05

Step : 30
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 29.11 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.3648E+11								
P 33	8.2629E+05	3.2019E-15	1.0136E-08	0.0000E+00	2.6102E-01	7.0547E-12	6.2596E-08	2.540E+01 (d)	P 33
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.7876E+07	1.2822E-14	1.3984E-07	0.0000E+00	1.6391E+00	4.4299E-11	1.2608E-06	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	1.0087E+08	9.9130E-15	4.3288E-08	3.1797E-03	2.3099E+01	6.2429E-10	1.9411E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	5.9125E+11	6.6271E-17	3.1070E-04	2.3457E-05	1.2611E-01	3.4085E-12	3.6555E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	1.4783E+09	9.0172E-13	1.8287E-05	0.0000E+00	7.2896E+01	1.9702E-09	5.5224E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.6166E+05	1.0413E-13	5.8895E-08	2.0875E-01	4.6261E-01	1.2503E-11	7.4017E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.9266E+05	2.0062E-14	8.3659E-09	2.1337E-02	4.6199E-01	1.2486E-11	2.4973E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.9887E+09	2.2650E-14	2.8204E-06	1.7058E-02	2.4002E+01	6.4870E-10	7.9214E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Fe 59	3.7063E+07	1.3993E-12	7.7609E-06	3.3816E+00	6.6825E+00	1.8061E-10	1.2019E-05	4.450E+01 (d)	Fe 59
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								

Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0472E+05	8.8564E-14	2.1480E-08	4.3993E-02	1.6686E+00	4.5098E-11	1.2360E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W184	2.3584E+14								
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0810E+05	2.6257E-14	7.7068E-09	2.8553E-02	3.6829E-01	9.9539E-12	2.9463E-07	2.355E+00 (d)	Np239

here are 115 Nuclides.

Totals: 4.4129E+22 1.0038E-09 1.847787E+04 1.5193E+03 2.3057E+03 6.2317E-08 2.0636E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 29.11 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.66101E+08
He	1.73251E+10
Na	1.09073E+19
Mg	4.01347E+08
Al	1.10676E+22
Si	1.50599E+11
P	8.26288E+05
S	9.35628E+20
Cl	3.43015E+09
Ar	5.28573E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.01274E+07
As	1.13335E+16

Se	5.98336E+07
Br	3.54167E+15
Kr	2.71010E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.17307E+06
In	3.12104E-07
Sn	2.66262E+05
Sb	1.16227E+15
Te	1.59306E+07
I	5.21288E-03
Xe	3.11258E+06
Cs	5.73591E+05
Ba	2.08115E+17
La	2.58511E+06
Ce	1.31585E-01
Pr	4.23584E-02
Nd	3.71552E+04
Pm	5.79425E+04
Sm	1.88252E+15
Eu	1.20793E+08
Gd	8.83402E+05
Lu	0.00000E+00
Hf	1.35555E-02
Ta	1.81058E+04
W	7.69706E+14
Re	1.92197E+06
Hg	1.58584E-01
Tl	5.59688E-01
Pb	4.78079E+15
Bi	1.64489E+03
Th	1.53171E-03
U	1.18888E+15
Np	1.08099E+05
Pu	2.64703E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.2391E-01	2.2530E+00
2	(0.1 -> 0.2 MeV)	1.7591E-01	1.1349E+00
3	(0.2 -> 0.4 MeV)	2.6203E-01	8.7344E-01
4	(0.4 -> 0.6 MeV)	2.2054E+00	4.4108E+00
5	(0.6 -> 0.8 MeV)	5.7841E-02	8.2630E-02
6	(0.8 -> 1.0 MeV)	5.0453E+00	5.6059E+00
7	(1.0 ->1.22 MeV)	4.3047E+00	3.8781E+00
8	(1.22 ->1.44 MeV)	1.2532E+01	9.4225E+00
9	(1.44 ->1.66 MeV)	5.8872E+01	3.7982E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.7404E+01	3.8781E+00	5.6059E+00	8.2630E-02
4.4108E+00	4.3672E-01	4.3672E-01	1.1349E+00	1.1265E+00	1.1265E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 315.34 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.3648E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	5.9125E+11	6.6271E-17	3.1069E-04	2.3457E-05	1.2611E-01	3.4085E-12	3.6555E-08	Ca 41
Ca 42	1.8317E+20							

Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	3.8576E+08	2.3530E-13	4.7718E-06	0.0000E+00	1.9022E+01	5.1410E-10	1.4410E-05	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	2.4013E+09	1.8199E-14	2.2661E-06	1.3706E-02	1.9285E+01	5.2122E-10	6.3647E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
315.3 (d)		5.5875E-13	1.847787E+04	1.9604E-01	4.1174E+01	1.1128E-09	3.8300E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 315.34 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	3.2211E-02	5.8565E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.9283E-01	2.9283E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 315.34 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.66101E+08
He	1.73251E+10
Na	1.09073E+19
Mg	4.01780E+08
Al	1.10676E+22
Si	1.50600E+11
P	1.51109E+02
S	9.35628E+20
Cl	3.54722E+09
Ar	4.27001E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.01394E+07
As	1.13335E+16
Se	5.99440E+07
Br	3.54167E+15
Kr	2.71229E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.19902E+06
In	0.00000E+00
Sn	2.67507E+05
Sb	1.16227E+15
Te	1.62130E+07
I	5.42095E-03
Xe	3.21928E+06
Cs	5.55311E+05
Ba	2.08115E+17
La	2.58536E+06
Ce	1.32356E-01
Pr	4.23655E-02
Nd	3.91682E+04
Pm	6.06160E+04
Sm	1.88252E+15
Eu	1.21182E+08
Gd	9.23097E+05
Lu	0.00000E+00
Hf	1.35555E-02
Ta	1.90219E+04
W	7.69706E+14
Re	1.94207E+06
Hg	1.56158E-01
Tl	5.62589E-01

Pb	4.78079E+15
Bi	1.64528E+03
Th	4.06056E-03
U	1.18888E+15
Np	5.29678E-36
Pu	2.65785E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.798E-04	9.812E+02	2.306E+03	6.232E-02	2.064E-04	1.004E-09	1.847787E+04
315.3 (d)	4.901E-08	1.752E+01	4.117E+01	1.113E-03	3.830E-05	5.587E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.306E+03	3.798E-04	2.064E-04	1.004E-09
315.3 (d)	4.117E+01	4.901E-08	3.830E-05	5.587E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.812E+05	4.272E-10	2.652E-05	1.519E+03
315.3 (d)	1.752E+04	2.378E-13	4.735E-07	1.960E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.812E+02	3.798E-04	4.272E-10	2.768E+03
315.3 (d)	1.752E+01	4.901E-08	2.378E-13	4.335E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	

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Step   18 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     17.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     17.99 (y)

Step   19 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     18.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     18.99 (y)

Step   20 : Activation of  3.31020E+06(s), i.e.     38.31 (d)     19.09 (y)        Intervals :  2
            Cold Pause of  2.82258E+07(s), i.e.    326.69 (d)     19.98 (y)

Step   21 : Activation of  2.82600E+06(s), i.e.     32.71 (d)     20.07 (y)        Intervals :  2
            Cold Pause of  2.87100E+07(s), i.e.    332.29 (d)     20.98 (y)

Step   22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)     21.05 (y)        Intervals :  2
            Cold Pause of  2.93940E+07(s), i.e.    340.21 (d)     21.98 (y)

Step   23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)     22.05 (y)        Intervals :  2
            Cold Pause of  2.94120E+07(s), i.e.    340.42 (d)     22.98 (y)

Step   24 : Activation of  1.38060E+06(s), i.e.     15.98 (d)     23.03 (y)        Intervals :  2
            Cold Pause of  3.01554E+07(s), i.e.    349.02 (d)     23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.      7.98 (d)     24.00 (y)        Intervals :  2
            Cold Pause of  3.08467E+07(s), i.e.    357.02 (d)     24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.     27.54 (d)     25.06 (y)        Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.    337.46 (d)     25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)     26.06 (y)        Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.    336.64 (d)     26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.     48.43 (d)     27.11 (y)        Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.    316.57 (d)     27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.     36.58 (d)     28.08 (y)        Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.    328.42 (d)     28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)     29.11 (y)        Intervals :  2
            Cold Pause of  2.72450E+07(s), i.e.    315.34 (d)     29.98 (y)

Step   31 : Activation of  2.37474E+06(s), i.e.     27.49 (d)     30.05 (y)        Intervals :  2

Cooling Times (s)  :

  2.9161E+07

   337.5 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :       4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :       5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :       6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :       7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :       8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :       9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :      10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
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Elapsed Time   :     10.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05
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Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
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            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5178E+03   2.2810E+03   6.1650E-08   1.9353E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.0758E-13 1.847787E+04   1.9439E-01   3.4894E+01   9.4308E-10   3.4535E-05

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31
     AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     30.05 (y)          Cooling Time 0.

Nuclide     N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     4.3305E+05   4.1691E-12   3.2444E-07   9.7660E+00   5.5646E+00   1.5040E-10   2.3883E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28     1.4096E+11
 S 32     8.8903E+20
 S 33     7.0172E+18
 S 34     3.9390E+19
 S 35     1.1505E+07   8.2520E-15   8.9999E-08   0.0000E+00   1.0549E+00   2.8510E-11   8.1144E-07   8.750E+01 (d)   S 35
 S 36     1.8713E+17
Ar 37     6.7707E+07   6.6541E-15   2.9057E-08   2.1344E-03   1.5505E+01   4.1905E-10   1.3029E-06   3.503E+01 (d)   Ar 37
 K 39     1.2658E+21
 K 40     1.5880E+17   2.9639E-13   1.7272E+04   1.8228E-01   2.7250E+00   7.3649E-11   1.6926E-05   1.280E+03(My)   K 40
 K 41     9.1347E+19
 K 42     1.3033E+07   5.5665E-11   3.5775E-06   2.5576E+01   2.0279E+02   5.4807E-09   8.7033E-05   1.237E+01 (h)   K 42
Ca 40     2.7445E+22
Ca 41     6.1070E+11   6.8451E-17   3.2091E-04   2.4229E-05   1.3026E-01   3.5206E-12   3.7757E-08   1.030E+05 (y)   Ca 41
Ca 42     1.8317E+20
Ca 43     3.8219E+19
Ca 44     5.9056E+20
Ca 45     1.0565E+09   6.4443E-13   1.3069E-05   0.0000E+00   5.2096E+01   1.4080E-09   3.9467E-05   1.627E+02 (d)   Ca 45
Ca 46     1.1324E+18
Ca 47     2.5786E+05   1.0261E-13   5.8040E-08   2.0572E-01   4.5589E-01   1.2321E-11   7.2943E-07   4.538E+00 (d)   Ca 47
Ca 48     5.2941E+19
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Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8380E+05	1.9139E-14	7.9814E-09	2.0356E-02	4.4076E-01	1.1912E-11	2.3825E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.8840E+09	2.1858E-14	2.7216E-06	1.6461E-02	2.3162E+01	6.2599E-10	7.6441E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.4088E+07	9.0943E-13	5.0440E-06	2.1978E+00	4.3431E+00	1.1738E-10	7.8113E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0469E+05	8.8559E-14	2.1479E-08	4.3990E-02	1.6685E+00	4.5096E-11	1.2360E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238

U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0807E+05	2.6249E-14	7.7044E-09	2.8544E-02	3.6818E-01	9.9508E-12	2.9454E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals: 4.4129E+22 1.0031E-09 1.847787E+04 1.5181E+03 2.2733E+03 6.1440E-08 1.8495E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 30.05 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.81432E+08
He	1.78950E+10
Na	1.09073E+19
Mg	4.14563E+08
Al	1.10676E+22
Si	1.55553E+11
P	5.87573E+05
S	9.35628E+20
Cl	3.58642E+09
Ar	5.08982E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.07898E+07
As	1.13335E+16
Se	6.18053E+07
Br	3.54167E+15
Kr	2.79931E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.22302E+06
In	3.12104E-07
Sn	2.75062E+05
Sb	1.16227E+15
Te	1.65506E+07
I	5.46062E-03
Xe	3.24408E+06
Cs	5.86172E+05
Ba	2.08115E+17
La	2.67010E+06
Ce	1.35941E-01
Pr	4.37519E-02
Nd	3.93471E+04
Pm	6.08152E+04
Sm	1.88252E+15
Eu	1.24778E+08
Gd	9.26546E+05
Lu	0.00000E+00
Hf	1.40014E-02
Ta	1.90953E+04
W	7.69706E+14
Re	1.99257E+06
Hg	1.62847E-01
Tl	5.71137E-01
Pb	4.78079E+15
Bi	1.69966E+03
Th	4.28280E-03
U	1.18888E+15
Np	1.08066E+05
Pu	2.73443E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.2080E-01	2.1963E+00
2	(0.1 -> 0.2 MeV)	1.5618E-01	1.0076E+00

3 (0.2 -> 0.4 MeV)	2.5975E-01	8.6582E-01
4 (0.4 -> 0.6 MeV)	2.2052E+00	4.4104E+00
5 (0.6 -> 0.8 MeV)	5.7831E-02	8.2616E-02
6 (0.8 -> 1.0 MeV)	5.0450E+00	5.6055E+00
7 (1.0 ->1.22 MeV)	2.8466E+00	2.5645E+00
8 (1.22 ->1.44 MeV)	1.1223E+01	8.4385E+00
9 (1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10 (1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11 (2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12 (2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13 (3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14 (4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15 (5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6419E+01	2.5645E+00	5.6055E+00	8.2616E-02
4.4104E+00	4.3291E-01	4.3291E-01	1.0076E+00	1.0981E+00	1.0981E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 337.52 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.4096E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	6.1069E+11	6.8450E-17	3.2091E-04	2.4228E-05	1.3026E-01	3.5206E-12	3.7757E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.5083E+08	1.5300E-13	3.1028E-06	0.0000E+00	1.2368E+01	3.3428E-10	9.3700E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	2.2819E+09	1.7294E-14	2.1534E-06	1.3024E-02	1.8326E+01	4.9529E-10	6.0481E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							

Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
337.5 (d)		4.7554E-13	1.847787E+04	1.9536E-01	3.3565E+01	9.0717E-10	3.2944E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 337.52 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	3.0618E-02	5.5669E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.7835E-01	2.7835E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 337.52 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.81432E+08
He	1.78950E+10
Na	1.09073E+19
Mg	4.14996E+08
Al	1.10676E+22
Si	1.55553E+11
P	5.86567E+01
S	9.35628E+20
Cl	3.66475E+09
Ar	4.40364E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16

Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.08018E+07
As	1.13335E+16
Se	6.19157E+07
Br	3.54167E+15
Kr	2.80150E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.23936E+06
In	0.00000E+00
Sn	2.76306E+05
Sb	1.16227E+15
Te	1.67496E+07
I	5.59956E-03
Xe	3.32517E+06
Cs	5.86061E+05
Ba	2.08115E+17
La	2.67036E+06
Ce	1.36709E-01
Pr	4.37590E-02
Nd	4.15905E+04
Pm	6.26861E+04
Sm	1.88252E+15
Eu	1.25167E+08
Gd	9.68500E+05
Lu	0.00000E+00
Hf	1.40014E-02
Ta	1.97267E+04
W	7.69706E+14
Re	2.00646E+06
Hg	1.61275E-01
Tl	5.73240E-01
Pb	4.78079E+15
Bi	1.70005E+03
Th	7.07855E-03
U	1.18888E+15
Np	7.73469E-39
Pu	2.74523E+07
Totals:	4.41291E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.674E+02	2.273E+03	6.144E-02	1.849E-04	1.003E-09	1.847787E+04
337.5 (d)	4.884E-08	1.428E+01	3.357E+01	9.072E-04	3.294E-05	4.755E-13	1.847787E+04

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.273E+03	3.795E-04	1.849E-04	1.003E-09
337.5 (d)	3.357E+01	4.884E-08	3.294E-05	4.755E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.674E+05	4.268E-10	2.614E-05	1.518E+03
337.5 (d)	1.428E+04	2.024E-13	3.860E-07	1.954E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.674E+02	3.795E-04	4.268E-10	2.768E+03
337.5 (d)	1.428E+01	4.884E-08	2.024E-13	4.312E-01

			Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	

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Step   4 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    3.07 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    4.00 (y)

Step   5 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    4.07 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    5.00 (y)

Step   6 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    5.07 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    6.00 (y)

Step   7 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    6.07 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    6.99 (y)

Step   8 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    7.07 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    7.99 (y)

Step   9 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    8.07 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    8.99 (y)

Step  10 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    9.07 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    9.99 (y)

Step  11 : Activation of  2.27682E+06(s), i.e.    26.35 (d)   10.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)   10.99 (y)

Step  12 : Activation of  2.27682E+06(s), i.e.    26.35 (d)   11.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)   11.99 (y)

Step  13 : Activation of  2.27682E+06(s), i.e.    26.35 (d)   12.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)   12.99 (y)

Step  14 : Activation of  2.27682E+06(s), i.e.    26.35 (d)   13.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)   13.99 (y)

Step  15 : Activation of  2.27682E+06(s), i.e.    26.35 (d)   14.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)   14.99 (y)

Step  16 : Activation of  2.27682E+06(s), i.e.    26.35 (d)   15.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)   15.99 (y)

Step  17 : Activation of  2.27682E+06(s), i.e.    26.35 (d)   16.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)   16.99 (y)

Step  18 : Activation of  2.27682E+06(s), i.e.    26.35 (d)   17.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)   17.99 (y)

Step  19 : Activation of  2.27682E+06(s), i.e.    26.35 (d)   18.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)   18.99 (y)

Step  20 : Activation of  3.31020E+06(s), i.e.    38.31 (d)   19.09 (y)    Intervals :  2
           Cold Pause of  2.82258E+07(s), i.e.   326.69 (d)   19.98 (y)

Step  21 : Activation of  2.82600E+06(s), i.e.    32.71 (d)   20.07 (y)    Intervals :  2
           Cold Pause of  2.87100E+07(s), i.e.   332.29 (d)   20.98 (y)

Step  22 : Activation of  2.14200E+06(s), i.e.    24.79 (d)   21.05 (y)    Intervals :  2
           Cold Pause of  2.93940E+07(s), i.e.   340.21 (d)   21.98 (y)

Step  23 : Activation of  2.12400E+06(s), i.e.    24.58 (d)   22.05 (y)    Intervals :  2
           Cold Pause of  2.94120E+07(s), i.e.   340.42 (d)   22.98 (y)

Step  24 : Activation of  1.38060E+06(s), i.e.    15.98 (d)   23.03 (y)    Intervals :  2
           Cold Pause of  3.01554E+07(s), i.e.   349.02 (d)   23.98 (y)

Step  25 : Activation of  6.89330E+05(s), i.e.     7.98 (d)   24.00 (y)    Intervals :  2
           Cold Pause of  3.08467E+07(s), i.e.   357.02 (d)   24.98 (y)

Step  26 : Activation of  2.37945E+06(s), i.e.    27.54 (d)   25.06 (y)    Intervals :  2
           Cold Pause of  2.91565E+07(s), i.e.   337.46 (d)   25.98 (y)

Step  27 : Activation of  2.45055E+06(s), i.e.    28.36 (d)   26.06 (y)    Intervals :  2
           Cold Pause of  2.90854E+07(s), i.e.   336.64 (d)   26.98 (y)

Step  28 : Activation of  4.18396E+06(s), i.e.    48.43 (d)   27.11 (y)    Intervals :  2
           Cold Pause of  2.73520E+07(s), i.e.   316.57 (d)   27.98 (y)

Step  29 : Activation of  3.16070E+06(s), i.e.    36.58 (d)   28.08 (y)    Intervals :  2
           Cold Pause of  2.83753E+07(s), i.e.   328.42 (d)   28.98 (y)

Step  30 : Activation of  4.29096E+06(s), i.e.    49.66 (d)   29.11 (y)    Intervals :  2
           Cold Pause of  2.72450E+07(s), i.e.   315.34 (d)   29.98 (y)

Step  31 : Activation of  2.37474E+06(s), i.e.    27.49 (d)   30.05 (y)    Intervals :  2
           Cold Pause of  2.91613E+07(s), i.e.   337.52 (d)   30.98 (y)

Step  32 : Activation of  1.67827E+06(s), i.e.    19.42 (d)   31.03 (y)    Intervals :  2

Cooling Times (s)  :

  2.9858E+07

   345.6 (d)
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AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2411E+03	6.0571E-08	1.7080E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3024E-13	1.847787E+04	1.8637E-01	1.8127E+01	4.8992E-10	2.6703E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2451E+03	6.0678E-08	1.7275E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3648E-13	1.847787E+04	1.8775E-01	2.0433E+01	5.5225E-10	2.7616E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2473E+03	6.0738E-08	1.7362E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 4.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3884E-13	1.847787E+04	1.8882E-01	2.2017E+01	5.9504E-10	2.8170E-05

Step : 5

Elapsed Time : 4.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2489E+03	6.0780E-08	1.7416E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 5.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4014E-13	1.847787E+04	1.8965E-01	2.3204E+01	6.2714E-10	2.8569E-05

Step : 6

Elapsed Time : 5.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2500E+03	6.0812E-08	1.7455E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4104E-13	1.847787E+04	1.9029E-01	2.4118E+01	6.5184E-10	2.8872E-05

Step : 7

Elapsed Time : 6.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2509E+03	6.0836E-08	1.7485E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4171E-13	1.847787E+04	1.9080E-01	2.4826E+01	6.7098E-10	2.9106E-05

Step : 8

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Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
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        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

 Step :  16

 Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

 Step :  17

 Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

 Step :  18

 Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

 Step :  19

 Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

 Step :  20

 Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

 Step :  21

 Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

 Step :  22

 Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     21.98 (y)
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            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5178E+03   2.2810E+03   6.1650E-08   1.9353E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.0758E-13 1.847787E+04   1.9439E-01   3.4894E+01   9.4308E-10   3.4535E-05
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Step : 30

Elapsed Time : 29.11 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0035E-09	1.847787E+04	1.5184E+03	2.3015E+03	6.2204E-08	2.0636E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 29.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	5.5875E-13	1.847787E+04	1.9604E-01	4.1174E+01	1.1128E-09	3.8300E-05

Step : 31

Elapsed Time : 30.05 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0027E-09	1.847787E+04	1.5172E+03	2.2691E+03	6.1327E-08	1.8495E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 30.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.7554E-13	1.847787E+04	1.9536E-01	3.3565E+01	9.0717E-10	3.2944E-05

Step : 32
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 31.03 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.4414E+11								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	8.2047E+06	5.8849E-15	6.4183E-08	0.0000E+00	7.5229E-01	2.0332E-11	5.7868E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	5.1476E+07	5.0589E-15	2.2091E-08	1.6227E-03	1.1788E+01	3.1859E-10	9.9058E-07	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	6.2444E+11	6.9991E-17	3.2813E-04	2.4774E-05	1.3319E-01	3.5998E-12	3.8607E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	7.4364E+08	4.5360E-13	9.1989E-06	0.0000E+00	3.6669E+01	9.9105E-10	2.7780E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.4832E+05	9.8819E-14	5.5893E-08	1.9811E-01	4.3903E-01	1.1866E-11	7.0245E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.6490E+05	1.7171E-14	7.1604E-09	1.8262E-02	3.9542E-01	1.0687E-11	2.1374E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.6256E+09	1.9899E-14	2.4777E-06	1.4985E-02	2.1086E+01	5.6989E-10	6.9591E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	1.8017E+07	6.8022E-13	3.7727E-06	1.6439E+00	3.2485E+00	8.7797E-11	5.8426E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								

Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1795E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0432E+05	8.8476E-14	2.1459E-08	4.3949E-02	1.6670E+00	4.5054E-11	1.2348E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0774E+05	2.6170E-14	7.6813E-09	2.8458E-02	3.6707E-01	9.9209E-12	2.9366E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5175E+03	2.2506E+03	6.0827E-08	1.7001E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 31.03 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.92267E+08
He	1.82977E+10
Na	1.09073E+19
Mg	4.23904E+08
Al	1.10676E+22
Si	1.59053E+11
P	4.58143E+05
S	9.35628E+20
Cl	3.68846E+09
Ar	5.01982E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16

Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.12580E+07
As	1.13335E+16
Se	6.31987E+07
Br	3.54167E+15
Kr	2.86236E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.25579E+06
In	3.12104E-07
Sn	2.81288E+05
Sb	1.16227E+15
Te	1.69683E+07
I	5.62030E-03
Xe	3.33611E+06
Cs	6.06948E+05
Ba	2.08115E+17
La	2.73020E+06
Ce	1.39029E-01
Pr	4.47367E-02
Nd	4.17212E+04
Pm	6.27646E+04
Sm	1.88252E+15
Eu	1.27590E+08
Gd	9.70857E+05
Lu	0.00000E+00
Hf	1.43165E-02
Ta	1.97619E+04
W	7.69706E+14
Re	2.04101E+06
Hg	1.66071E-01
Tl	5.79138E-01
Pb	4.78079E+15
Bi	1.73744E+03
Th	7.24035E-03
U	1.18888E+15
Np	1.07741E+05
Pu	2.79619E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1643E-01	2.1169E+00
2	(0.1 -> 0.2 MeV)	1.4299E-01	9.2252E-01
3	(0.2 -> 0.4 MeV)	2.5858E-01	8.6194E-01
4	(0.4 -> 0.6 MeV)	2.2046E+00	4.4093E+00
5	(0.6 -> 0.8 MeV)	5.7806E-02	8.2580E-02
6	(0.8 -> 1.0 MeV)	5.0441E+00	5.6045E+00
7	(1.0 ->1.22 MeV)	2.1644E+00	1.9499E+00
8	(1.22 ->1.44 MeV)	1.0597E+01	7.9680E+00
9	(1.44 ->1.66 MeV)	5.8869E+01	3.7980E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.5948E+01	1.9499E+00	5.6045E+00	8.2580E-02
4.4093E+00	4.3097E-01	4.3097E-01	9.2252E-01	1.0585E+00	1.0585E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 345.58 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Na 23	1.0907E+19						
Al 27	1.1068E+22						
Si 28	1.4414E+11						
S 32	8.8903E+20						
S 33	7.0172E+18						
S 34	3.9390E+19						
S 36	1.8713E+17						

K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	6.2443E+11	6.9991E-17	3.2813E-04	2.4774E-05	1.3319E-01	3.5998E-12	3.8606E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.7059E+08	1.0406E-13	2.1102E-06	0.0000E+00	8.4119E+00	2.2735E-10	6.3727E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	2.0658E+09	1.5656E-14	1.9495E-06	1.1790E-02	1.6590E+01	4.4839E-10	5.4754E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
345.6 (d)		4.2497E-13	1.847787E+04	1.9413E-01	2.7876E+01	7.5341E-10	2.9375E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 345.58 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.7735E-02	5.0427E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.5214E-01	2.5214E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 345.58 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.92267E+08
He	1.82977E+10
Na	1.09073E+19
Mg	4.24337E+08
Al	1.10676E+22
Si	1.59053E+11
P	3.67041E+01
S	9.35628E+20
Cl	3.74755E+09
Ar	4.49521E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.12700E+07
As	1.13335E+16
Se	6.33091E+07
Br	3.54167E+15
Kr	2.86455E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.26763E+06
In	0.00000E+00
Sn	2.82524E+05
Sb	1.16227E+15
Te	1.71277E+07
I	5.72567E-03
Xe	3.40001E+06
Cs	6.16385E+05
Ba	2.08115E+17
La	2.73046E+06
Ce	1.39786E-01
Pr	4.47438E-02
Nd	4.40702E+04
Pm	6.36453E+04
Sm	1.88252E+15
Eu	1.27980E+08
Gd	1.01174E+06
Lu	0.00000E+00

Hf	1.43165E-02
Ta	2.02083E+04
W	7.69706E+14
Re	2.05180E+06
Hg	1.64897E-01
Tl	5.80876E-01
Pb	4.78079E+15
Bi	1.73783E+03
Th	1.01673E-02
U	1.18888E+15
Np	7.18991E-40
Pu	2.80696E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.794E-04	9.577E+02	2.251E+03	6.083E-02	1.700E-04	1.003E-09	1.847787E+04
345.6 (d)	4.853E-08	1.186E+01	2.788E+01	7.534E-04	2.938E-05	4.250E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete Sl :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.251E+03	3.794E-04	1.700E-04	1.003E-09
345.6 (d)	2.788E+01	4.853E-08	2.938E-05	4.250E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.577E+05	4.267E-10	2.588E-05	1.518E+03
345.6 (d)	1.186E+04	1.808E-13	3.206E-07	1.941E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.577E+02	3.794E-04	4.267E-10	2.768E+03
345.6 (d)	1.186E+01	4.853E-08	1.808E-13	4.282E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	

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Step  16 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     15.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     15.99 (y)

Step  17 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     16.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     16.99 (y)

Step  18 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     17.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     17.99 (y)

Step  19 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     18.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     18.99 (y)

Step  20 : Activation of  3.31020E+06(s), i.e.     38.31 (d)     19.09 (y)        Intervals :  2
           Cold Pause of  2.82258E+07(s), i.e.    326.69 (d)     19.98 (y)

Step  21 : Activation of  2.82600E+06(s), i.e.     32.71 (d)     20.07 (y)        Intervals :  2
           Cold Pause of  2.87100E+07(s), i.e.    332.29 (d)     20.98 (y)

Step  22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)     21.05 (y)        Intervals :  2
           Cold Pause of  2.93940E+07(s), i.e.    340.21 (d)     21.98 (y)

Step  23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)     22.05 (y)        Intervals :  2
           Cold Pause of  2.94120E+07(s), i.e.    340.42 (d)     22.98 (y)

Step  24 : Activation of  1.38060E+06(s), i.e.     15.98 (d)     23.03 (y)        Intervals :  2
           Cold Pause of  3.01554E+07(s), i.e.    349.02 (d)     23.98 (y)

Step  25 : Activation of  6.89330E+05(s), i.e.      7.98 (d)     24.00 (y)        Intervals :  2
           Cold Pause of  3.08467E+07(s), i.e.    357.02 (d)     24.98 (y)

Step  26 : Activation of  2.37945E+06(s), i.e.     27.54 (d)     25.06 (y)        Intervals :  2
           Cold Pause of  2.91565E+07(s), i.e.    337.46 (d)     25.98 (y)

Step  27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)     26.06 (y)        Intervals :  2
           Cold Pause of  2.90854E+07(s), i.e.    336.64 (d)     26.98 (y)

Step  28 : Activation of  4.18396E+06(s), i.e.     48.43 (d)     27.11 (y)        Intervals :  2
           Cold Pause of  2.73520E+07(s), i.e.    316.57 (d)     27.98 (y)

Step  29 : Activation of  3.16070E+06(s), i.e.     36.58 (d)     28.08 (y)        Intervals :  2
           Cold Pause of  2.83753E+07(s), i.e.    328.42 (d)     28.98 (y)

Step  30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)     29.11 (y)        Intervals :  2
           Cold Pause of  2.72450E+07(s), i.e.    315.34 (d)     29.98 (y)

Step  31 : Activation of  2.37474E+06(s), i.e.     27.49 (d)     30.05 (y)        Intervals :  2
           Cold Pause of  2.91613E+07(s), i.e.    337.52 (d)     30.98 (y)

Step  32 : Activation of  1.67827E+06(s), i.e.     19.42 (d)     31.03 (y)        Intervals :  2
           Cold Pause of  2.98577E+07(s), i.e.    345.58 (d)     31.98 (y)

Step  33 : Activation of  1.58702E+06(s), i.e.     18.37 (d)     32.03 (y)        Intervals :  2

Cooling Times (s)  :

  2.9949E+07

   346.6 (d)

AJBRF Reactor

Step :  1

Elapsed Time   :     26.35 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :    365.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :  2

Elapsed Time   :      1.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      2.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :  3

Elapsed Time   :      2.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       3.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time    :       3.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       4.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time    :       4.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       5.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time    :       5.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       6.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time    :       6.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       6.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time    :       7.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       7.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time    :       8.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       8.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time    :       9.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       9.99 (y)
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            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05
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Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
```

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otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5178E+03   2.2810E+03   6.1650E-08   1.9353E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.0758E-13 1.847787E+04   1.9439E-01   3.4894E+01   9.4308E-10   3.4535E-05

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
```

Elapsed Time : 31.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.2497E-13	1.847787E+04	1.9413E-01	2.7876E+01	7.5341E-10	2.9375E-05

Step : 33
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 32.03 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24ml	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24ml
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.4713E+11								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	7.6033E+06	5.4536E-15	5.9478E-08	0.0000E+00	6.9714E-01	1.8842E-11	5.3626E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	4.9139E+07	4.8293E-15	2.1089E-08	1.5491E-03	1.1253E+01	3.0413E-10	9.4562E-07	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	6.3743E+11	7.1447E-17	3.3496E-04	2.5289E-05	1.3596E-01	3.6747E-12	3.9410E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	6.4369E+08	3.9263E-13	7.9624E-06	0.0000E+00	3.1740E+01	8.5784E-10	2.4046E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.4596E+05	9.7881E-14	5.5362E-08	1.9623E-01	4.3486E-01	1.1753E-11	6.9578E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.6065E+05	1.6728E-14	6.9759E-09	1.7792E-02	3.8523E-01	1.0412E-11	2.0823E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.3937E+09	1.8141E-14	2.2589E-06	1.3662E-02	1.9223E+01	5.1955E-10	6.3444E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	1.7145E+07	6.4730E-13	3.5901E-06	1.5643E+00	3.0913E+00	8.3547E-11	5.5598E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60ml	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60ml
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1795E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								

Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0413E+05	8.8436E-14	2.1449E-08	4.3929E-02	1.6662E+00	4.5034E-11	1.2343E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0761E+05	2.6138E-14	7.6720E-09	2.8424E-02	3.6663E-01	9.9089E-12	2.9330E-07	2.355E+00 (d)	Np239
here are	114 Nuclides.								
Totals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5174E+03	2.2431E+03	6.0623E-08	1.6528E-04		

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 32.03 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.02513E+08
He	1.86786E+10
Na	1.09073E+19
Mg	4.32734E+08
Al	1.10676E+22
Si	1.62363E+11
P	4.38970E+05
S	9.35628E+20
Cl	3.76945E+09
Ar	5.08275E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.17007E+07
As	1.13335E+16
Se	6.45164E+07
Br	3.54167E+15
Kr	2.92198E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.28306E+06
In	3.12104E-07
Sn	2.87170E+05
Sb	1.16227E+15
Te	1.73310E+07
I	5.74431E-03
Xe	3.40953E+06

Cs	6.35837E+05
Ba	2.08115E+17
La	2.78704E+06
Ce	1.41942E-01
Pr	4.56680E-02
Nd	4.41956E+04
Pm	6.36786E+04
Sm	1.88252E+15
Eu	1.30251E+08
Gd	1.01386E+06
Lu	0.00000E+00
Hf	1.46145E-02
Ta	2.02369E+04
W	7.69706E+14
Re	2.08426E+06
Hg	1.69444E-01
Tl	5.70881E-01
Pb	4.78079E+15
Bi	1.77422E+03
Th	1.03237E-02
U	1.18888E+15
Np	1.07611E+05
Pu	2.85457E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1318E-01	2.0578E+00
2	(0.1 -> 0.2 MeV)	1.4066E-01	9.0750E-01
3	(0.2 -> 0.4 MeV)	2.5839E-01	8.6130E-01
4	(0.4 -> 0.6 MeV)	2.2045E+00	4.4090E+00
5	(0.6 -> 0.8 MeV)	5.7799E-02	8.2571E-02
6	(0.8 -> 1.0 MeV)	5.0438E+00	5.6043E+00
7	(1.0 ->1.22 MeV)	2.0664E+00	1.8616E+00
8	(1.22 ->1.44 MeV)	1.0506E+01	7.8991E+00
9	(1.44 ->1.66 MeV)	5.8869E+01	3.7980E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.5879E+01	1.8616E+00	5.6043E+00	8.2571E-02
4.4090E+00	4.3065E-01	4.3065E-01	9.0750E-01	1.0289E+00	1.0289E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 346.63 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.4714E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	6.3743E+11	7.1447E-17	3.3496E-04	2.5289E-05	1.3596E-01	3.6747E-12	3.9410E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.4700E+08	8.9664E-14	1.8184E-06	0.0000E+00	7.2485E+00	1.9591E-10	5.4913E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							

Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.8819E+09	1.4263E-14	1.7760E-06	1.0741E-02	1.5114E+01	4.0848E-10	4.9881E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
346.6 (d)		4.0918E-13	1.847787E+04	1.9308E-01	2.5239E+01	6.8214E-10	2.8007E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 346.63 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.5282E-02	4.5967E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10

12 (2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13 (3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14 (4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15 (5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.2984E-01	2.2984E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 346.63 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.02513E+08
He	1.86786E+10
Na	1.09073E+19
Mg	4.33167E+08
Al	1.10676E+22
Si	1.62363E+11
P	3.41683E+01
S	9.35628E+20
Cl	3.82566E+09
Ar	4.58124E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.17127E+07
As	1.13335E+16
Se	6.46268E+07
Br	3.54167E+15
Kr	2.92417E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.29416E+06
In	0.00000E+00
Sn	2.88405E+05
Sb	1.16227E+15
Te	1.74844E+07
I	5.84485E-03
Xe	3.47077E+06
Cs	6.46196E+05
Ba	2.08115E+17
La	2.78729E+06
Ce	1.42695E-01
Pr	4.56751E-02
Nd	4.65740E+04
Pm	6.39890E+04
Sm	1.88252E+15
Eu	1.30643E+08
Gd	1.05282E+06
Lu	0.00000E+00
Hf	1.46145E-02
Ta	2.06381E+04
W	7.69706E+14
Re	2.09454E+06
Hg	1.68328E-01
Tl	5.72583E-01
Pb	4.78079E+15
Bi	1.77460E+03
Th	1.33207E-02
U	1.18888E+15
Np	5.26151E-40
Pu	2.86533E+07
Totals:	4.41291E+22

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.794E-04	9.545E+02	2.243E+03	6.062E-02	1.653E-04	1.003E-09	1.847787E+04
346.6 (d)	4.827E-08	1.074E+01	2.524E+01	6.821E-04	2.801E-05	4.092E-13	1.847787E+04

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.243E+03	3.794E-04	1.653E-04	1.003E-09
346.6 (d)	2.524E+01	4.827E-08	2.801E-05	4.092E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.545E+05	4.266E-10	2.580E-05	1.517E+03
346.6 (d)	1.074E+04	1.741E-13	2.903E-07	1.931E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.545E+02	3.794E-04	4.266E-10	2.768E+03
346.6 (d)	1.074E+01	4.827E-08	1.741E-13	4.259E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	

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Step   23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)     22.05 (y)        Intervals :  2
            Cold Pause of  2.94120E+07(s), i.e.    340.42 (d)     22.98 (y)

Step   24 : Activation of  1.38060E+06(s), i.e.     15.98 (d)     23.03 (y)        Intervals :  2
            Cold Pause of  3.01554E+07(s), i.e.    349.02 (d)     23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.      7.98 (d)     24.00 (y)        Intervals :  2
            Cold Pause of  3.08467E+07(s), i.e.    357.02 (d)     24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.     27.54 (d)     25.06 (y)        Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.    337.46 (d)     25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)     26.06 (y)        Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.    336.64 (d)     26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.     48.43 (d)     27.11 (y)        Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.    316.57 (d)     27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.     36.58 (d)     28.08 (y)        Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.    328.42 (d)     28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)     29.11 (y)        Intervals :  2
            Cold Pause of  2.72450E+07(s), i.e.    315.34 (d)     29.98 (y)

Step   31 : Activation of  2.37474E+06(s), i.e.     27.49 (d)     30.05 (y)        Intervals :  2
            Cold Pause of  2.91613E+07(s), i.e.    337.52 (d)     30.98 (y)

Step   32 : Activation of  1.67827E+06(s), i.e.     19.42 (d)     31.03 (y)        Intervals :  2
            Cold Pause of  2.98577E+07(s), i.e.    345.58 (d)     31.98 (y)

Step   33 : Activation of  1.58702E+06(s), i.e.     18.37 (d)     32.03 (y)        Intervals :  2
            Cold Pause of  2.99490E+07(s), i.e.    346.63 (d)     32.97 (y)

Step   34 : Activation of  1.45885E+06(s), i.e.     16.88 (d)     33.02 (y)        Intervals :  2

Cooling Times (s)  :

  3.0077E+07

   348.1 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :     26.35 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :   2

Elapsed Time   :      1.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :      2.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :      3.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12
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Elapsed Time   :     11.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
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        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     25.98 (y)
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            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time    :     26.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     26.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time    :     27.11 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     27.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time    :     28.08 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5178E+03   2.2810E+03   6.1650E-08   1.9353E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     28.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.0758E-13 1.847787E+04   1.9439E-01   3.4894E+01   9.4308E-10   3.4535E-05

Step :  30

Elapsed Time    :     29.11 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     29.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time    :     30.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     30.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time    :     31.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     31.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05

Step :  33

Elapsed Time    :     32.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0022E-09 1.847787E+04   1.5166E+03   2.2389E+03   6.0510E-08   1.6528E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     32.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0918E-13 1.847787E+04   1.9308E-01   2.5239E+01   6.8214E-10   2.8007E-05
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Step : 34
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 33.02 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.4989E+11								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	7.0319E+06	5.0437E-15	5.5009E-08	0.0000E+00	6.4475E-01	1.7426E-11	4.9596E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	4.5801E+07	4.5012E-15	1.9656E-08	1.4438E-03	1.0488E+01	2.8347E-10	8.8137E-07	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	6.4937E+11	7.2786E-17	3.4124E-04	2.5763E-05	1.3851E-01	3.7436E-12	4.0148E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	5.8488E+08	3.5676E-13	7.2350E-06	0.0000E+00	2.8841E+01	7.7947E-10	2.1849E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.4194E+05	9.6279E-14	5.4456E-08	1.9301E-01	4.2775E-01	1.1561E-11	6.8439E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.5369E+05	1.6003E-14	6.6736E-09	1.7021E-02	3.6854E-01	9.9605E-12	1.9921E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.1856E+09	1.6564E-14	2.0625E-06	1.2474E-02	1.7553E+01	4.7440E-10	5.7930E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	1.5937E+07	6.0169E-13	3.3372E-06	1.4541E+00	2.8734E+00	7.7660E-11	5.1680E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0642E-01	2.1795E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								

Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0373E+05	8.8347E-14	2.1428E-08	4.3885E-02	1.6646E+00	4.4988E-11	1.2330E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0734E+05	2.6073E-14	7.6529E-09	2.8353E-02	3.6572E-01	9.8843E-12	2.9258E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5173E+03	2.2374E+03	6.0471E-08	1.6201E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 33.02 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.11931E+08
He	1.90286E+10
Na	1.09073E+19
Mg	4.40854E+08
Al	1.10676E+22
Si	1.65405E+11
P	4.11106E+05
S	9.35628E+20
Cl	3.84505E+09
Ar	5.12759E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.21076E+07
As	1.13335E+16
Se	6.57276E+07
Br	3.54167E+15
Kr	2.97679E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.30825E+06
In	3.12104E-07
Sn	2.92581E+05
Sb	1.16227E+15
Te	1.76665E+07
I	5.86074E-03
Xe	3.47850E+06
Cs	6.63620E+05
Ba	2.08115E+17
La	2.83926E+06
Ce	1.44623E-01
Pr	4.65241E-02

Nd	4.66898E+04
Pm	6.39978E+04
Sm	1.88252E+15
Eu	1.32698E+08
Gd	1.05467E+06
Lu	0.00000E+00
Hf	1.48884E-02
Ta	2.06621E+04
W	7.69706E+14
Re	2.12411E+06
Hg	1.72522E-01
Tl	5.77694E-01
Pb	4.78079E+15
Bi	1.80699E+03
Th	1.15142E-02
U	1.18888E+15
Np	1.07343E+05
Pu	2.90825E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1016E-01	2.0028E+00
2	(0.1 -> 0.2 MeV)	1.3712E-01	8.8463E-01
3	(0.2 -> 0.4 MeV)	2.5810E-01	8.6033E-01
4	(0.4 -> 0.6 MeV)	2.2043E+00	4.4085E+00
5	(0.6 -> 0.8 MeV)	5.7788E-02	8.2555E-02
6	(0.8 -> 1.0 MeV)	5.0435E+00	5.6039E+00
7	(1.0 ->1.22 MeV)	1.9306E+00	1.7393E+00
8	(1.22 ->1.44 MeV)	1.0378E+01	7.8027E+00
9	(1.44 ->1.66 MeV)	5.8869E+01	3.7980E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.5783E+01	1.7393E+00	5.6039E+00	8.2555E-02
4.4085E+00	4.3016E-01	4.3016E-01	8.8463E-01	1.0014E+00	1.0014E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 348.12 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.4989E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	6.4937E+11	7.2786E-17	3.4124E-04	2.5763E-05	1.3851E-01	3.7435E-12	4.0148E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.3273E+08	8.0959E-14	1.6418E-06	0.0000E+00	6.5448E+00	1.7689E-10	4.9582E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.7166E+09	1.3010E-14	1.6199E-06	9.7975E-03	1.3786E+01	3.7260E-10	4.5499E-06	Fe 55

Fe 56	2.2412E+21
Fe 57	5.1785E+19
Fe 58	6.8395E+18
Co 59	1.4406E+16
Ni 58	2.9537E+16
Ni 60	1.1378E+16
Ni 61	4.9463E+14
Ni 62	1.5767E+15
Ni 64	4.0178E+14
Cu 63	2.0027E+16
Cu 65	8.9265E+15
Zn 64	2.2091E+16
Zn 66	1.2682E+16
Zn 67	1.8637E+15
Zn 68	8.5456E+15
Zn 70	2.7273E+14
Ga 69	6.1006E+15

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
348.1 (d)		3.9923E-13	1.847787E+04	1.9213E-01	2.3210E+01	6.2730E-10	2.7037E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 348.12 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.3076E-02	4.1957E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.0979E-01	2.0979E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 348.12 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.11931E+08
He	1.90286E+10
Na	1.09073E+19
Mg	4.41287E+08
Al	1.10676E+22
Si	1.65405E+11
P	3.07294E+01
S	9.35628E+20
Cl	3.89739E+09
Ar	4.65919E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.21196E+07
As	1.13335E+16
Se	6.58380E+07
Br	3.54167E+15
Kr	2.97897E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.31859E+06
In	0.00000E+00
Sn	2.93810E+05
Sb	1.16227E+15
Te	1.78123E+07
I	5.95441E-03
Xe	3.53582E+06
Cs	6.75414E+05
Ba	2.08115E+17
La	2.83952E+06
Ce	1.45370E-01
Pr	4.65311E-02
Nd	4.90828E+04
Pm	6.39497E+04
Sm	1.88252E+15
Eu	1.33092E+08
Gd	1.09174E+06
Lu	0.00000E+00
Hf	1.48884E-02
Ta	2.10317E+04
W	7.69706E+14
Re	2.13383E+06
Hg	1.71484E-01
Tl	5.79340E-01
Pb	4.78079E+15
Bi	1.80738E+03
Th	1.45805E-02
U	1.18888E+15
Np	3.39116E-40
Pu	2.91897E+07
Totals:	4.41291E+22

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.793E-04	9.521E+02	2.237E+03	6.047E-02	1.620E-04	1.002E-09	1.847787E+04
348.1 (d)	4.803E-08	9.877E+00	2.321E+01	6.273E-04	2.704E-05	3.992E-13	1.847787E+04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.237E+03	3.793E-04	1.620E-04	1.002E-09
348.1 (d)	2.321E+01	4.803E-08	2.704E-05	3.992E-13

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.521E+05	4.266E-10	2.573E-05	1.517E+03
348.1 (d)	9.877E+03	1.699E-13	2.669E-07	1.921E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.521E+02	3.793E-04	4.266E-10	2.768E+03
348.1 (d)	9.877E+00	4.803E-08	1.699E-13	4.240E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals : 2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)	
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals : 2

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                Cold Pause of  3.01554E+07(s), i.e.     349.02 (d)     23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.       7.98 (d)     24.00 (y)      Intervals :  2
            Cold Pause of  3.08467E+07(s), i.e.     357.02 (d)     24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.      27.54 (d)     25.06 (y)      Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.     337.46 (d)     25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.      28.36 (d)     26.06 (y)      Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.     336.64 (d)     26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.      48.43 (d)     27.11 (y)      Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.     316.57 (d)     27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.      36.58 (d)     28.08 (y)      Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.     328.42 (d)     28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.      49.66 (d)     29.11 (y)      Intervals :  2
            Cold Pause of  2.72450E+07(s), i.e.     315.34 (d)     29.98 (y)

Step   31 : Activation of  2.37474E+06(s), i.e.      27.49 (d)     30.05 (y)      Intervals :  2
            Cold Pause of  2.91613E+07(s), i.e.     337.52 (d)     30.98 (y)

Step   32 : Activation of  1.67827E+06(s), i.e.      19.42 (d)     31.03 (y)      Intervals :  2
            Cold Pause of  2.98577E+07(s), i.e.     345.58 (d)     31.98 (y)

Step   33 : Activation of  1.58702E+06(s), i.e.      18.37 (d)     32.03 (y)      Intervals :  2
            Cold Pause of  2.99490E+07(s), i.e.     346.63 (d)     32.97 (y)

Step   34 : Activation of  1.45885E+06(s), i.e.      16.88 (d)     33.02 (y)      Intervals :  2
            Cold Pause of  3.00772E+07(s), i.e.     348.12 (d)     33.97 (y)

Step   35 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     34.05 (y)      Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor

Step :  1

Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :  2

Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :  3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :  4

Elapsed Time   :      3.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05
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Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
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            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05


Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05


Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05


Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05


Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05


Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05


Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05


Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
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Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05
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Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5178E+03   2.2810E+03   6.1650E-08   1.9353E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.0758E-13 1.847787E+04   1.9439E-01   3.4894E+01   9.4308E-10   3.4535E-05

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0022E-09 1.847787E+04   1.5166E+03   2.2389E+03   6.0510E-08   1.6528E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0918E-13 1.847787E+04   1.9308E-01   2.5239E+01   6.8214E-10   2.8007E-05

Step :  34
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Elapsed Time : 33.02 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0021E-09	1.847787E+04	1.5165E+03	2.2332E+03	6.0358E-08	1.6201E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 33.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	3.9923E-13	1.847787E+04	1.9213E-01	2.3210E+01	6.2730E-10	2.7037E-05

Step : 35
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 34.05 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.5420E+11								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0302E+07	7.3890E-15	8.0587E-08	0.0000E+00	9.4455E-01	2.5528E-11	7.2658E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5500E+07	6.4371E-15	2.8110E-08	2.0648E-03	1.4999E+01	4.0539E-10	1.2605E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	6.6802E+11	7.4876E-17	3.5104E-04	2.6503E-05	1.4249E-01	3.8510E-12	4.1301E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.0421E+08	4.9054E-13	9.9481E-06	0.0000E+00	3.9655E+01	1.0718E-09	3.0042E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.1920E+09	1.6613E-14	2.0686E-06	1.2511E-02	1.7604E+01	4.7578E-10	5.8099E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3160E+07	8.7440E-13	4.8497E-06	2.1131E+00	4.1758E+00	1.1286E-10	7.5104E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87

Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239
here are	114 Nuclides.								

Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2545E+03	6.0933E-08	1.7326E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 34.05 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.26630E+08
He	1.95750E+10
Na	1.09073E+19
Mg	4.53525E+08
Al	1.10676E+22
Si	1.70154E+11
P	5.70998E+05
S	9.35628E+20
Cl	3.93400E+09
Ar	5.45239E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.27427E+07
As	1.13335E+16
Se	6.76180E+07
Br	3.54167E+15
Kr	3.06232E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.34127E+06

In	3.12104E-07
Sn	3.01002E+05
Sb	1.16227E+15
Te	1.81318E+07
I	5.99097E-03
Xe	3.55835E+06
Cs	7.04875E+05
Ba	2.08115E+17
La	2.92080E+06
Ce	1.48776E-01
Pr	4.78601E-02
Nd	4.92636E+04
Pm	6.39750E+04
Sm	1.88252E+15
Eu	1.36524E+08
Gd	1.09454E+06
Lu	0.00000E+00
Hf	1.53159E-02
Ta	2.10833E+04
W	7.69706E+14
Re	2.18193E+06
Hg	1.77921E-01
Tl	6.03115E-01
Pb	4.78079E+15
Bi	1.85877E+03
Th	1.28611E-02
U	1.18888E+15
Np	1.08052E+05
Pu	2.99194E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1145E-01	2.0263E+00
2	(0.1 -> 0.2 MeV)	1.5451E-01	9.9686E-01
3	(0.2 -> 0.4 MeV)	2.5958E-01	8.6527E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7423E+00	2.4706E+00
8	(1.22 ->1.44 MeV)	1.1129E+01	8.3675E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6348E+01	2.4706E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3263E-01	4.3263E-01	9.9686E-01	1.0131E+00	1.0131E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.5420E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	6.6801E+11	7.4875E-17	3.5103E-04	2.6503E-05	1.4249E-01	3.8510E-12	4.1301E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.9001E+08	1.1590E-13	2.3504E-06	0.0000E+00	9.3695E+00	2.5323E-10	7.0981E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							

Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.7330E+09	1.3134E-14	1.6354E-06	9.8909E-03	1.3917E+01	3.7615E-10	4.5932E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.3429E-13	1.847787E+04	1.9223E-01	2.6170E+01	7.0730E-10	2.9221E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.3296E-02	4.2357E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09

6 (0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7 (1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8 (1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9 (1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10 (1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11 (2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12 (2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13 (3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14 (4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15 (5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.1179E-01	2.1179E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.26630E+08
He	1.95750E+10
Na	1.09073E+19
Mg	4.53958E+08
Al	1.10676E+22
Si	1.70154E+11
P	5.52661E+01
S	9.35628E+20
Cl	4.00901E+09
Ar	4.78734E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.27547E+07
As	1.13335E+16
Se	6.77284E+07
Br	3.54167E+15
Kr	3.06451E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.35628E+06
In	0.00000E+00
Sn	3.02246E+05
Sb	1.16227E+15
Te	1.83226E+07
I	6.12530E-03
Xe	3.63735E+06
Cs	7.04754E+05
Ba	2.08115E+17
La	2.92106E+06
Ce	1.49544E-01
Pr	4.78672E-02
Nd	5.15984E+04
Pm	6.43197E+04
Sm	1.88252E+15
Eu	1.36921E+08
Gd	1.13052E+06
Lu	0.00000E+00
Hf	1.53159E-02
Ta	2.16075E+04
W	7.69706E+14
Re	2.19493E+06
Hg	1.76411E-01
Tl	6.05237E-01
Pb	4.78079E+15
Bi	1.85916E+03
Th	1.59296E-02
U	1.18888E+15
Np	5.54030E-39
Pu	3.00274E+07
Totals:	4.41291E+22

AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.594E+02	2.255E+03	6.093E-02	1.733E-04	1.003E-09	1.847787E+04
338.6 (d)	4.806E-08	1.114E+01	2.617E+01	7.073E-04	2.922E-05	4.343E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.255E+03	3.795E-04	1.733E-04	1.003E-09
338.6 (d)	2.617E+01	4.806E-08	2.922E-05	4.343E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.594E+05	4.268E-10	2.593E-05	1.518E+03
338.6 (d)	1.114E+04	1.848E-13	3.010E-07	1.922E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.594E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.114E+01	4.806E-08	1.848E-13	4.245E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	

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Step   21 : Activation of  2.82600E+06(s), i.e.     32.71 (d)     20.07 (y)        Intervals :  2
            Cold Pause of  2.87100E+07(s), i.e.    332.29 (d)     20.98 (y)

Step   22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)     21.05 (y)        Intervals :  2
            Cold Pause of  2.93940E+07(s), i.e.    340.21 (d)     21.98 (y)

Step   23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)     22.05 (y)        Intervals :  2
            Cold Pause of  2.94120E+07(s), i.e.    340.42 (d)     22.98 (y)

Step   24 : Activation of  1.38060E+06(s), i.e.     15.98 (d)     23.03 (y)        Intervals :  2
            Cold Pause of  3.01554E+07(s), i.e.    349.02 (d)     23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.      7.98 (d)     24.00 (y)        Intervals :  2
            Cold Pause of  3.08467E+07(s), i.e.    357.02 (d)     24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.     27.54 (d)     25.06 (y)        Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.    337.46 (d)     25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)     26.06 (y)        Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.    336.64 (d)     26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.     48.43 (d)     27.11 (y)        Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.    316.57 (d)     27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.     36.58 (d)     28.08 (y)        Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.    328.42 (d)     28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)     29.11 (y)        Intervals :  2
            Cold Pause of  2.72450E+07(s), i.e.    315.34 (d)     29.98 (y)

Step   31 : Activation of  2.37474E+06(s), i.e.     27.49 (d)     30.05 (y)        Intervals :  2
            Cold Pause of  2.91613E+07(s), i.e.    337.52 (d)     30.98 (y)

Step   32 : Activation of  1.67827E+06(s), i.e.     19.42 (d)     31.03 (y)        Intervals :  2
            Cold Pause of  2.98577E+07(s), i.e.    345.58 (d)     31.98 (y)

Step   33 : Activation of  1.58702E+06(s), i.e.     18.37 (d)     32.03 (y)        Intervals :  2
            Cold Pause of  2.99490E+07(s), i.e.    346.63 (d)     32.97 (y)

Step   34 : Activation of  1.45885E+06(s), i.e.     16.88 (d)     33.02 (y)        Intervals :  2
            Cold Pause of  3.00772E+07(s), i.e.    348.12 (d)     33.97 (y)

Step   35 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     34.05 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     34.97 (y)

Step   36 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     35.05 (y)        Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05
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Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11
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Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :       0. appm/y.
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        Production of He  :      0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5178E+03   2.2810E+03   6.1650E-08   1.9353E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.0758E-13 1.847787E+04   1.9439E-01   3.4894E+01   9.4308E-10   3.4535E-05

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05

Step :  33
```

Elapsed Time : 32.03 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0022E-09	1.847787E+04	1.5166E+03	2.2389E+03	6.0510E-08	1.6528E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 32.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0918E-13	1.847787E+04	1.9308E-01	2.5239E+01	6.8214E-10	2.8007E-05

Step : 34

Elapsed Time : 33.02 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0021E-09	1.847787E+04	1.5165E+03	2.2332E+03	6.0358E-08	1.6201E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 33.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	3.9923E-13	1.847787E+04	1.9213E-01	2.3210E+01	6.2730E-10	2.7037E-05

Step : 35

Elapsed Time : 34.05 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5172E+03	2.2503E+03	6.0819E-08	1.7326E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 34.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3429E-13	1.847787E+04	1.9223E-01	2.6170E+01	7.0730E-10	2.9221E-05

Step : 36
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 35.05 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.5850E+11								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	1.0511E+07	7.5394E-15	8.2227E-08	0.0000E+00	9.6377E-01	2.6048E-11	7.4136E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	6.5520E+07	6.4391E-15	2.8118E-08	2.0654E-03	1.5004E+01	4.0551E-10	1.2608E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	6.8666E+11	7.6965E-17	3.6083E-04	2.7242E-05	1.4646E-01	3.9585E-12	4.2454E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	8.5541E+08	5.2177E-13	1.0581E-05	0.0000E+00	4.2180E+01	1.1400E-09	3.1955E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5711E+05	1.0232E-13	5.7873E-08	2.0512E-01	4.5458E-01	1.2286E-11	7.2733E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.8220E+05	1.8972E-14	7.9117E-09	2.0179E-02	4.3691E-01	1.1808E-11	2.3617E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.2081E+09	1.6735E-14	2.0837E-06	1.2603E-02	1.7733E+01	4.7927E-10	5.8525E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3192E+07	8.7561E-13	4.8564E-06	2.1161E+00	4.1815E+00	1.1301E-10	7.5207E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals: 4.4129E+22 1.0029E-09 1.847787E+04 1.5180E+03 2.2572E+03 6.1006E-08 1.7524E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 35.05 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.41329E+08
He	2.01213E+10
Na	1.09073E+19
Mg	4.66196E+08
Al	1.10676E+22
Si	1.74903E+11
P	5.71010E+05

S	9.35628E+20
Cl	4.04568E+09
Ar	5.58038E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.33779E+07
As	1.13335E+16
Se	6.95084E+07
Br	3.54167E+15
Kr	3.14785E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.37903E+06
In	3.12104E-07
Sn	3.09438E+05
Sb	1.16227E+15
Te	1.86425E+07
I	6.16189E-03
Xe	3.65988E+06
Cs	7.34227E+05
Ba	2.08115E+17
La	3.00234E+06
Ce	1.52950E-01
Pr	4.91961E-02
Nd	5.17802E+04
Pm	6.43662E+04
Sm	1.88252E+15
Eu	1.40353E+08
Gd	1.13332E+06
Lu	0.00000E+00
Hf	1.57433E-02
Ta	2.16633E+04
W	7.69706E+14
Re	2.24307E+06
Hg	1.82847E-01
Tl	6.29015E-01
Pb	4.78079E+15
Bi	1.91054E+03
Th	1.42169E-02
U	1.18888E+15
Np	1.08052E+05
Pu	3.07571E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1166E-01	2.0302E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	1.0151E+00	1.0151E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.5850E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	6.8666E+11	7.6965E-17	3.6083E-04	2.7242E-05	1.4646E-01	3.9585E-12	4.2453E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0211E+08	1.2328E-13	2.5001E-06	0.0000E+00	9.9660E+00	2.6935E-10	7.5500E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.7457E+09	1.3230E-14	1.6474E-06	9.9634E-03	1.4020E+01	3.7891E-10	4.6269E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							

W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4177E-13	1.847787E+04	1.9230E-01	2.6873E+01	7.2629E-10	2.9708E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.3468E-02	4.2668E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.1334E-01	2.1334E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.41329E+08
He	2.01213E+10
Na	1.09073E+19
Mg	4.66629E+08
Al	1.10676E+22
Si	1.74904E+11
P	5.52673E+01
S	9.35628E+20
Cl	4.12091E+09
Ar	4.91485E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.33898E+07
As	1.13335E+16
Se	6.96188E+07
Br	3.54167E+15
Kr	3.15004E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.39424E+06
In	0.00000E+00
Sn	3.10682E+05
Sb	1.16227E+15
Te	1.88341E+07
I	6.29627E-03

Xe	3.73887E+06
Cs	7.34250E+05
Ba	2.08115E+17
La	3.00260E+06
Ce	1.53718E-01
Pr	4.92032E-02
Nd	5.41330E+04
Pm	6.48937E+04
Sm	1.88252E+15
Eu	1.40750E+08
Gd	1.16928E+06
Lu	0.00000E+00
Hf	1.57434E-02
Ta	2.22094E+04
W	7.69706E+14
Re	2.25620E+06
Hg	1.81334E-01
Tl	6.31159E-01
Pb	4.78079E+15
Bi	1.91093E+03
Th	1.73711E-02
U	1.18888E+15
Np	5.54030E-39
Pu	3.08651E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.605E+02	2.257E+03	6.101E-02	1.752E-04	1.003E-09	1.847787E+04
338.6 (d)	4.808E-08	1.144E+01	2.687E+01	7.263E-04	2.971E-05	4.418E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete Sl :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.257E+03	3.795E-04	1.752E-04	1.003E-09
338.6 (d)	2.687E+01	4.808E-08	2.971E-05	4.418E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.605E+05	4.268E-10	2.596E-05	1.518E+03
338.6 (d)	1.144E+04	1.880E-13	3.091E-07	1.923E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.605E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.144E+01	4.808E-08	1.880E-13	4.248E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	

Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)		
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)		
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)		
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)		
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)		
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)		
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)		
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)		
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals :	2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)		
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals :	2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)		
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals :	2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)		
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals :	2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)		
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals :	2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)		
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals :	2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)		
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals :	2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)		
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals :	2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)		
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals :	2
	Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)		
Step 29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals :	2
	Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)		
Step 30 :	Activation of	4.29096E+06(s), i.e.	49.66 (d)	29.11 (y)	Intervals :	2
	Cold Pause of	2.72450E+07(s), i.e.	315.34 (d)	29.98 (y)		
Step 31 :	Activation of	2.37474E+06(s), i.e.	27.49 (d)	30.05 (y)	Intervals :	2
	Cold Pause of	2.91613E+07(s), i.e.	337.52 (d)	30.98 (y)		
Step 32 :	Activation of	1.67827E+06(s), i.e.	19.42 (d)	31.03 (y)	Intervals :	2
	Cold Pause of	2.98577E+07(s), i.e.	345.58 (d)	31.98 (y)		
Step 33 :	Activation of	1.58702E+06(s), i.e.	18.37 (d)	32.03 (y)	Intervals :	2
	Cold Pause of	2.99490E+07(s), i.e.	346.63 (d)	32.97 (y)		
Step 34 :	Activation of	1.45885E+06(s), i.e.	16.88 (d)	33.02 (y)	Intervals :	2
	Cold Pause of	3.00772E+07(s), i.e.	348.12 (d)	33.97 (y)		
Step 35 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	34.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	34.97 (y)		
Step 36 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	35.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	35.97 (y)		
Step 37 :	Activation of	1.80003E+06(s), i.e.	20.83 (d)	36.03 (y)	Intervals :	2

Cooling Times (s) :

2.9736E+07

344.2 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2411E+03	6.0571E-08	1.7080E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3024E-13	1.847787E+04	1.8637E-01	1.8127E+01	4.8992E-10	2.6703E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2451E+03	6.0678E-08	1.7275E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3648E-13	1.847787E+04	1.8775E-01	2.0433E+01	5.5225E-10	2.7616E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2473E+03	6.0738E-08	1.7362E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 4.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3884E-13	1.847787E+04	1.8882E-01	2.2017E+01	5.9504E-10	2.8170E-05

Step : 5

Elapsed Time : 4.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2489E+03	6.0780E-08	1.7416E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 5.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4014E-13	1.847787E+04	1.8965E-01	2.3204E+01	6.2714E-10	2.8569E-05

Step : 6

Elapsed Time : 5.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2500E+03	6.0812E-08	1.7455E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4104E-13	1.847787E+04	1.9029E-01	2.4118E+01	6.5184E-10	2.8872E-05

Step : 7

Elapsed Time : 6.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2509E+03	6.0836E-08	1.7485E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4171E-13	1.847787E+04	1.9080E-01	2.4826E+01	6.7098E-10	2.9106E-05

Step : 8

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Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
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            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5178E+03   2.2810E+03   6.1650E-08   1.9353E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.0758E-13 1.847787E+04   1.9439E-01   3.4894E+01   9.4308E-10   3.4535E-05
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Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05


Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05


Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05


Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0022E-09 1.847787E+04   1.5166E+03   2.2389E+03   6.0510E-08   1.6528E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0918E-13 1.847787E+04   1.9308E-01   2.5239E+01   6.8214E-10   2.8007E-05


Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5165E+03   2.2332E+03   6.0358E-08   1.6201E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.9923E-13 1.847787E+04   1.9213E-01   2.3210E+01   6.2730E-10   2.7037E-05


Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5172E+03   2.2503E+03   6.0819E-08   1.7326E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3429E-13 1.847787E+04   1.9223E-01   2.6170E+01   7.0730E-10   2.9221E-05


Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2530E+03   6.0892E-08   1.7524E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4177E-13 1.847787E+04   1.9230E-01   2.6873E+01   7.2629E-10   2.9708E-05


Step :  37
    AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital
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Elapsed Time : 36.03 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	4.3305E+05	4.1691E-12	3.2444E-07	9.7660E+00	5.5646E+00	1.5040E-10	2.3883E-06	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.6190E+11								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 35	8.6357E+06	6.1941E-15	6.7555E-08	0.0000E+00	7.9180E-01	2.1400E-11	6.0908E-07	8.750E+01 (d)	S 35
S 36	1.8713E+17								
Ar 37	5.4488E+07	5.3550E-15	2.3384E-08	1.7177E-03	1.2478E+01	3.3724E-10	1.0486E-06	3.503E+01 (d)	Ar 37
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03(My)	K 40
K 41	9.1347E+19								
K 42	1.3033E+07	5.5665E-11	3.5775E-06	2.5576E+01	2.0279E+02	5.4807E-09	8.7033E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	7.0140E+11	7.8617E-17	3.6858E-04	2.7827E-05	1.4961E-01	4.0435E-12	4.3365E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	7.3325E+08	4.4726E-13	9.0703E-06	0.0000E+00	3.6157E+01	9.7721E-10	2.7391E-05	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 47	2.5093E+05	9.9857E-14	5.6480E-08	2.0019E-01	4.4364E-01	1.1990E-11	7.0983E-07	4.538E+00 (d)	Ca 47
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 47	1.6976E+05	1.7678E-14	7.3718E-09	1.8802E-02	4.0710E-01	1.1003E-11	2.2005E-07	3.346E+00 (d)	Sc 47
Sc 49	1.5031E+05	3.9817E-12	1.9711E-08	1.2920E-02	3.0362E+01	8.2060E-10	2.4887E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.1218E+09	1.6081E-14	2.0023E-06	1.2110E-02	1.7040E+01	4.6055E-10	5.6239E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	1.9112E+07	7.2155E-13	4.0019E-06	1.7437E+00	3.4458E+00	9.3130E-11	6.1975E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1795E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								

Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0447E+05	8.8511E-14	2.1468E-08	4.3966E-02	1.6676E+00	4.5071E-11	1.2353E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0786E+05	2.6200E-14	7.6899E-09	2.8490E-02	3.6749E-01	9.9321E-12	2.9399E-07	2.355E+00 (d)	Np239
here are	114 Nuclides.								
Totals:	4.4129E+22	1.0027E-09	1.847787E+04	1.5176E+03	2.2470E+03	6.0730E-08	1.6875E-04		

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 36.03 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.52950E+08
He	2.05533E+10
Na	1.09073E+19
Mg	4.76212E+08
Al	1.10676E+22
Si	1.78658E+11
P	4.82862E+05
S	9.35628E+20
Cl	4.14706E+09
Ar	5.56852E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.38800E+07
As	1.13335E+16
Se	7.10030E+07
Br	3.54167E+15
Kr	3.21547E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.41195E+06
In	3.12104E-07
Sn	3.16112E+05
Sb	1.16227E+15
Te	1.90730E+07
I	6.31991E-03
Xe	3.75183E+06
Cs	7.56923E+05
Ba	2.08115E+17
La	3.06679E+06
Ce	1.56257E-01
Pr	5.02524E-02
Nd	5.42780E+04
Pm	6.49240E+04
Sm	1.88252E+15
Eu	1.43379E+08

Gd	1.17146E+06
Lu	0.00000E+00
Hf	1.60813E-02
Ta	2.22472E+04
W	7.69706E+14
Re	2.29349E+06
Hg	1.86466E-01
Tl	6.37583E-01
Pb	4.78079E+15
Bi	1.95132E+03
Th	1.56130E-02
U	1.18888E+15
Np	1.07863E+05
Pu	3.14194E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0990E-01	1.9982E+00
2	(0.1 -> 0.2 MeV)	1.4577E-01	9.4048E-01
3	(0.2 -> 0.4 MeV)	2.5881E-01	8.6271E-01
4	(0.4 -> 0.6 MeV)	2.2048E+00	4.4096E+00
5	(0.6 -> 0.8 MeV)	5.7813E-02	8.2590E-02
6	(0.8 -> 1.0 MeV)	5.0443E+00	5.6048E+00
7	(1.0 ->1.22 MeV)	2.2874E+00	2.0607E+00
8	(1.22 ->1.44 MeV)	1.0712E+01	8.0539E+00
9	(1.44 ->1.66 MeV)	5.8869E+01	3.7980E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6034E+01	2.0607E+00	5.6048E+00	8.2590E-02
4.4096E+00	4.3135E-01	4.3135E-01	9.4048E-01	9.9908E-01	9.9908E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 344.17 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.6190E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.0139E+11	7.8617E-17	3.6857E-04	2.7827E-05	1.4961E-01	4.0434E-12	4.3364E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.6922E+08	1.0322E-13	2.0933E-06	0.0000E+00	8.3443E+00	2.2552E-10	6.3214E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.6711E+09	1.2665E-14	1.5770E-06	9.5376E-03	1.3420E+01	3.6271E-10	4.4292E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							

Ni 58	2.9537E+16
Ni 60	1.1378E+16
Ni 61	4.9463E+14
Ni 62	1.5767E+15
Ni 64	4.0178E+14
Cu 63	2.0027E+16
Cu 65	8.9265E+15
Zn 64	2.2091E+16
Zn 66	1.2682E+16
Zn 67	1.8637E+15
Zn 68	8.5456E+15
Zn 70	2.7273E+14
Ga 69	6.1006E+15

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
344.2 (d)		4.2115E-13	1.847787E+04	1.9188E-01	2.4655E+01	6.6635E-10	2.8283E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 344.17 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.2473E-02	4.0860E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00 0.0000E+00 9.1498E-11 1.9196E-10 5.0926E-10 5.5704E-10

8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.0430E-01	2.0430E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 344.17 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.52950E+08
He	2.05533E+10
Na	1.09073E+19
Mg	4.76646E+08
Al	1.10676E+22
Si	1.78658E+11
P	4.02007E+01
S	9.35628E+20
Cl	4.20956E+09
Ar	5.01269E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.38919E+07
As	1.13335E+16
Se	7.11134E+07
Br	3.54167E+15
Kr	3.21766E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.42446E+06
In	0.00000E+00
Sn	3.17352E+05
Sb	1.16227E+15
Te	1.92392E+07
I	6.43149E-03
Xe	3.81913E+06
Cs	7.63496E+05
Ba	2.08115E+17
La	3.06705E+06
Ce	1.57017E-01
Pr	5.02595E-02
Nd	5.66849E+04
Pm	6.52088E+04
Sm	1.88252E+15
Eu	1.43777E+08
Gd	1.20701E+06
Lu	0.00000E+00
Hf	1.60813E-02
Ta	2.27056E+04
W	7.69706E+14
Re	2.30475E+06
Hg	1.85221E-01
Tl	6.39487E-01
Pb	4.78079E+15
Bi	1.95171E+03
Th	1.88874E-02
U	1.18888E+15
Np	1.08964E-39
Pu	3.15271E+07
Totals:	4.41291E+22

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.794E-04	9.562E+02	2.247E+03	6.073E-02	1.687E-04	1.003E-09	1.847787E+04
344.2 (d)	4.797E-08	1.049E+01	2.466E+01	6.664E-04	2.828E-05	4.211E-13	1.847787E+04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.247E+03	3.794E-04	1.687E-04	1.003E-09
344.2 (d)	2.466E+01	4.797E-08	2.828E-05	4.211E-13

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.562E+05	4.267E-10	2.584E-05	1.518E+03
344.2 (d)	1.049E+04	1.792E-13	2.836E-07	1.919E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.562E+02	3.794E-04	4.267E-10	2.768E+03
344.2 (d)	1.049E+01	4.797E-08	1.792E-13	4.237E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals : 2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)	
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals : 2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)	
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals : 2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)	

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Step   26 : Activation of  2.37945E+06(s), i.e.     27.54 (d)     25.06 (y)      Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.    337.46 (d)     25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)     26.06 (y)      Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.    336.64 (d)     26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.     48.43 (d)     27.11 (y)      Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.    316.57 (d)     27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.     36.58 (d)     28.08 (y)      Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.    328.42 (d)     28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)     29.11 (y)      Intervals :  2
            Cold Pause of  2.72450E+07(s), i.e.    315.34 (d)     29.98 (y)

Step   31 : Activation of  2.37474E+06(s), i.e.     27.49 (d)     30.05 (y)      Intervals :  2
            Cold Pause of  2.91613E+07(s), i.e.    337.52 (d)     30.98 (y)

Step   32 : Activation of  1.67827E+06(s), i.e.     19.42 (d)     31.03 (y)      Intervals :  2
            Cold Pause of  2.98577E+07(s), i.e.    345.58 (d)     31.98 (y)

Step   33 : Activation of  1.58702E+06(s), i.e.     18.37 (d)     32.03 (y)      Intervals :  2
            Cold Pause of  2.99490E+07(s), i.e.    346.63 (d)     32.97 (y)

Step   34 : Activation of  1.45885E+06(s), i.e.     16.88 (d)     33.02 (y)      Intervals :  2
            Cold Pause of  3.00772E+07(s), i.e.    348.12 (d)     33.97 (y)

Step   35 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     34.05 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     34.97 (y)

Step   36 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     35.05 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     35.97 (y)

Step   37 : Activation of  1.80003E+06(s), i.e.     20.83 (d)     36.03 (y)      Intervals :  2
            Cold Pause of  2.97360E+07(s), i.e.    344.17 (d)     36.97 (y)

Step   38 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     37.04 (y)      Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor

Step :  1

Elapsed Time   :     26.35 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :  2

Elapsed Time   :      1.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :  3

Elapsed Time   :      2.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :  4

Elapsed Time   :      3.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
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Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05
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Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19
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Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :       0. appm/y.
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        Production of He  :      0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5178E+03   2.2810E+03   6.1650E-08   1.9353E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.0758E-13 1.847787E+04   1.9439E-01   3.4894E+01   9.4308E-10   3.4535E-05

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0022E-09 1.847787E+04   1.5166E+03   2.2389E+03   6.0510E-08   1.6528E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   4.0918E-13 1.847787E+04   1.9308E-01   2.5239E+01   6.8214E-10   2.8007E-05

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5165E+03   2.2332E+03   6.0358E-08   1.6201E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.9923E-13 1.847787E+04   1.9213E-01   2.3210E+01   6.2730E-10   2.7037E-05

Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5172E+03   2.2503E+03   6.0819E-08   1.7326E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3429E-13 1.847787E+04   1.9223E-01   2.6170E+01   7.0730E-10   2.9221E-05

Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2530E+03   6.0892E-08   1.7524E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4177E-13 1.847787E+04   1.9230E-01   2.6873E+01   7.2629E-10   2.9708E-05

Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5168E+03   2.2428E+03   6.0617E-08   1.6875E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2115E-13 1.847787E+04   1.9188E-01   2.4655E+01   6.6635E-10   2.8283E-05

Step :  38
    AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     37.04 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     4.3305E+05   4.1691E-12   3.2444E-07   9.7660E+00   5.5646E+00   1.5040E-10   2.3883E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28     1.6621E+11
 S 32     8.8903E+20
 S 33     7.0172E+18
 S 34     3.9390E+19
 S 35     1.0398E+07   7.4584E-15   8.1343E-08   0.0000E+00   9.5342E-01   2.5768E-11   7.3340E-07   8.750E+01 (d)   S 35
 S 36     1.8713E+17
Ar 37     6.5507E+07   6.4379E-15   2.8113E-08   2.0651E-03   1.5001E+01   4.0544E-10   1.2606E-06   3.503E+01 (d)   Ar 37
 K 39     1.2658E+21
 K 40     1.5880E+17   2.9639E-13   1.7272E+04   1.8228E-01   2.7250E+00   7.3649E-11   1.6926E-05   1.280E+03(My)   K 40
 K 41     9.1347E+19
 K 42     1.3033E+07   5.5665E-11   3.5775E-06   2.5576E+01   2.0279E+02   5.4807E-09   8.7033E-05   1.237E+01 (h)   K 42
Ca 40     2.7445E+22
Ca 41     7.2004E+11   8.0707E-17   3.7837E-04   2.8567E-05   1.5358E-01   4.1509E-12   4.4517E-08   1.030E+05 (y)   Ca 41
Ca 42     1.8317E+20
Ca 43     3.8219E+19
Ca 44     5.9056E+20
Ca 45     8.3683E+08   5.1043E-13   1.0352E-05   0.0000E+00   4.1264E+01   1.1152E-09   3.1261E-05   1.627E+02 (d)   Ca 45
Ca 46     1.1324E+18
Ca 47     2.5711E+05   1.0232E-13   5.7873E-08   2.0512E-01   4.5458E-01   1.2286E-11   7.2733E-07   4.538E+00 (d)   Ca 47
Ca 48     5.2941E+19
Ca 49     2.2915E+04   1.9634E-11   1.4818E-08   4.0919E+01   3.0362E+01   8.2060E-10   3.9482E-06   8.719E+00 (m)   Ca 49
Sc 45     1.2591E+16
Sc 47     1.8220E+05   1.8972E-14   7.9117E-09   2.0179E-02   4.3691E-01   1.1808E-11   2.3617E-07   3.346E+00 (d)   Sc 47
Sc 49     1.5031E+05   3.9817E-12   1.9711E-08   1.2920E-02   3.0362E+01   8.2060E-10   2.4887E-06   5.719E+01 (m)   Sc 49
Ti 46     2.5495E+17
Ti 47     2.2992E+17
Ti 48     2.2782E+18
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Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.7761E+04	2.3479E-12	3.1448E-08	4.2015E+00	5.8057E+00	1.5691E-10	1.4514E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	2.1473E+09	1.6274E-14	2.0264E-06	1.2256E-02	1.7245E+01	4.6608E-10	5.6914E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Fe 59	2.3173E+07	8.7489E-13	4.8524E-06	2.1143E+00	4.1781E+00	1.1292E-10	7.5146E-06	4.450E+01 (d)	Fe 59

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals:	4.4129E+22	1.0029E-09	1.847787E+04	1.5180E+03	2.2558E+03	6.0967E-08	1.7438E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 37.04 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.67649E+08
He	2.10997E+10
Na	1.09073E+19
Mg	4.88883E+08
Al	1.10676E+22
Si	1.83408E+11
P	5.71003E+05
S	9.35628E+20
Cl	4.24620E+09
Ar	5.80577E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.45151E+07
As	1.13335E+16
Se	7.28933E+07
Br	3.54167E+15
Kr	3.30101E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.44717E+06
In	3.12104E-07
Sn	3.24544E+05
Sb	1.16227E+15
Te	1.95588E+07
I	6.46806E-03
Xe	3.84166E+06
Cs	7.92960E+05
Ba	2.08115E+17
La	3.14833E+06
Ce	1.60424E-01
Pr	5.15884E-02
Nd	5.68693E+04
Pm	6.52503E+04
Sm	1.88252E+15
Eu	1.47210E+08
Gd	1.20973E+06
Lu	0.00000E+00
Hf	1.65088E-02
Ta	2.27595E+04
W	7.69706E+14
Re	2.35287E+06
Hg	1.91657E-01
Tl	6.63268E-01
Pb	4.78079E+15
Bi	2.00310E+03
Th	1.71866E-02
U	1.18888E+15
Np	1.08052E+05
Pu	3.22568E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1085E-01	2.0155E+00
2	(0.1 -> 0.2 MeV)	1.5453E-01	9.9697E-01
3	(0.2 -> 0.4 MeV)	2.5958E-01	8.6527E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7438E+00	2.4719E+00
8	(1.22 ->1.44 MeV)	1.1130E+01	8.3684E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01

10 (1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11 (2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12 (2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13 (3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14 (4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15 (5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6349E+01	2.4719E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9697E-01	1.0078E+00	1.0078E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.6621E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.2004E+11	8.0706E-17	3.7837E-04	2.8567E-05	1.5358E-01	4.1509E-12	4.4517E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.9772E+08	1.2060E-13	2.4458E-06	0.0000E+00	9.7495E+00	2.6350E-10	7.3860E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.6976E+09	1.2866E-14	1.6020E-06	9.6891E-03	1.3634E+01	3.6848E-10	4.4995E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							

Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.3873E-13	1.847787E+04	1.9203E-01	2.6277E+01	7.1020E-10	2.9419E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.2829E-02	4.1508E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.0754E-01	2.0754E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.67649E+08
He	2.10997E+10
Na	1.09073E+19
Mg	4.89316E+08
Al	1.10676E+22
Si	1.83408E+11
P	5.52666E+01
S	9.35628E+20
Cl	4.32131E+09
Ar	5.13985E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16

Ga	1.01490E+16
Ge	2.45271E+07
As	1.13335E+16
Se	7.30037E+07
Br	3.54167E+15
Kr	3.30320E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.46228E+06
In	0.00000E+00
Sn	3.25788E+05
Sb	1.16227E+15
Te	1.97500E+07
I	6.60241E-03
Xe	3.92066E+06
Cs	7.92878E+05
Ba	2.08115E+17
La	3.14859E+06
Ce	1.61191E-01
Pr	5.15955E-02
Nd	5.92531E+04
Pm	6.57242E+04
Sm	1.88252E+15
Eu	1.47609E+08
Gd	1.24479E+06
Lu	0.00000E+00
Hf	1.65088E-02
Ta	2.32954E+04
W	7.69706E+14
Re	2.36592E+06
Hg	1.90146E-01
Tl	6.65447E-01
Pb	4.78079E+15
Bi	2.00348E+03
Th	2.04941E-02
U	1.18888E+15
Np	5.54030E-39
Pu	3.23647E+07
Totals:	4.41291E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.599E+02	2.256E+03	6.097E-02	1.744E-04	1.003E-09	1.847787E+04
338.6 (d)	4.801E-08	1.118E+01	2.628E+01	7.102E-04	2.942E-05	4.387E-13	1.847787E+04

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.256E+03	3.795E-04	1.744E-04	1.003E-09
338.6 (d)	2.628E+01	4.801E-08	2.942E-05	4.387E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.599E+05	4.268E-10	2.594E-05	1.518E+03
338.6 (d)	1.118E+04	1.867E-13	3.022E-07	1.920E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.599E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.118E+01	4.801E-08	1.867E-13	4.242E-01

			Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	

Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)		
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)		
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)		
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)		
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)		
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)		
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)		
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)		
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)		
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)		
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)		
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)		
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)		
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)		
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals :	2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)		
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals :	2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)		
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals :	2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)		
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals :	2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)		
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals :	2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)		
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals :	2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)		
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals :	2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)		
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals :	2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)		
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals :	2
	Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)		
Step 29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals :	2
	Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)		
Step 30 :	Activation of	4.29096E+06(s), i.e.	49.66 (d)	29.11 (y)	Intervals :	2
	Cold Pause of	2.72450E+07(s), i.e.	315.34 (d)	29.98 (y)		
Step 31 :	Activation of	2.37474E+06(s), i.e.	27.49 (d)	30.05 (y)	Intervals :	2
	Cold Pause of	2.91613E+07(s), i.e.	337.52 (d)	30.98 (y)		
Step 32 :	Activation of	1.67827E+06(s), i.e.	19.42 (d)	31.03 (y)	Intervals :	2
	Cold Pause of	2.98577E+07(s), i.e.	345.58 (d)	31.98 (y)		
Step 33 :	Activation of	1.58702E+06(s), i.e.	18.37 (d)	32.03 (y)	Intervals :	2
	Cold Pause of	2.99490E+07(s), i.e.	346.63 (d)	32.97 (y)		
Step 34 :	Activation of	1.45885E+06(s), i.e.	16.88 (d)	33.02 (y)	Intervals :	2
	Cold Pause of	3.00772E+07(s), i.e.	348.12 (d)	33.97 (y)		
Step 35 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	34.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	34.97 (y)		
Step 36 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	35.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	35.97 (y)		
Step 37 :	Activation of	1.80003E+06(s), i.e.	20.83 (d)	36.03 (y)	Intervals :	2
	Cold Pause of	2.97360E+07(s), i.e.	344.17 (d)	36.97 (y)		

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Step   38 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     37.04 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     37.97 (y)

Step   39 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     38.04 (y)        Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2

Elapsed Time   :      1.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


Step :   3

Elapsed Time   :      2.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05


Step :   4

Elapsed Time   :      3.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05


Step :   5

Elapsed Time   :      4.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05


Step :   6

Elapsed Time   :      5.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05


Step :   7
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Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
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            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time    :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time    :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time    :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time    :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time    :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time    :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time    :     27.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     27.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05
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Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5178E+03   2.2810E+03   6.1650E-08   1.9353E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   5.0758E-13 1.847787E+04   1.9439E-01   3.4894E+01   9.4308E-10   3.4535E-05

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0022E-09 1.847787E+04   1.5166E+03   2.2389E+03   6.0510E-08   1.6528E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.0918E-13 1.847787E+04   1.9308E-01   2.5239E+01   6.8214E-10   2.8007E-05

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5165E+03   2.2332E+03   6.0358E-08   1.6201E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   3.9923E-13 1.847787E+04   1.9213E-01   2.3210E+01   6.2730E-10   2.7037E-05

Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5172E+03   2.2503E+03   6.0819E-08   1.7326E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.3429E-13 1.847787E+04   1.9223E-01   2.6170E+01   7.0730E-10   2.9221E-05

Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
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otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2530E+03   6.0892E-08   1.7524E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4177E-13 1.847787E+04   1.9230E-01   2.6873E+01   7.2629E-10   2.9708E-05


Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5168E+03   2.2428E+03   6.0617E-08   1.6875E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2115E-13 1.847787E+04   1.9188E-01   2.4655E+01   6.6635E-10   2.8283E-05


Step :  38

Elapsed Time   :     37.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0854E-08   1.7438E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     37.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3873E-13 1.847787E+04   1.9203E-01   2.6277E+01   7.1020E-10   2.9419E-05


Step :  39
    AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     38.04 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     4.3305E+05   4.1691E-12   3.2444E-07   9.7660E+00   5.5646E+00   1.5040E-10   2.3883E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28     1.7051E+11
 S 32     8.8903E+20
 S 33     7.0172E+18
 S 34     3.9390E+19
 S 35     1.0517E+07   7.5432E-15   8.2269E-08   0.0000E+00   9.6426E-01   2.6061E-11   7.4174E-07   8.750E+01 (d)    S 35
 S 36     1.8713E+17
Ar 37     6.5520E+07   6.4391E-15   2.8118E-08   2.0654E-03   1.5004E+01   4.0551E-10   1.2608E-06   3.503E+01 (d)   Ar 37
 K 39     1.2658E+21
 K 40     1.5880E+17   2.9639E-13   1.7272E+04   1.8228E-01   2.7250E+00   7.3649E-11   1.6926E-05   1.280E+03(My)    K 40
 K 41     9.1347E+19
 K 42     1.3033E+07   5.5665E-11   3.5775E-06   2.5576E+01   2.0279E+02   5.4807E-09   8.7033E-05   1.237E+01 (h)    K 42
Ca 40     2.7445E+22
Ca 41     7.3868E+11   8.2797E-17   3.8817E-04   2.9306E-05   1.5756E-01   4.2584E-12   4.5670E-08   1.030E+05 (y)   Ca 41
Ca 42     1.8317E+20
Ca 43     3.8219E+19
Ca 44     5.9056E+20
Ca 45     8.6230E+08   5.2597E-13   1.0667E-05   0.0000E+00   4.2520E+01   1.1492E-09   3.2212E-05   1.627E+02 (d)   Ca 45
Ca 46     1.1324E+18
Ca 47     2.5711E+05   1.0232E-13   5.7873E-08   2.0512E-01   4.5458E-01   1.2286E-11   7.2733E-07   4.538E+00 (d)   Ca 47
Ca 48     5.2941E+19
Ca 49     2.2915E+04   1.9634E-11   1.4818E-08   4.0919E+01   3.0362E+01   8.2060E-10   3.9482E-06   8.719E+00 (m)   Ca 49
Sc 45     1.2591E+16
Sc 47     1.8220E+05   1.8972E-14   7.9117E-09   2.0179E-02   4.3691E-01   1.1808E-11   2.3617E-07   3.346E+00 (d)   Sc 47
Sc 49     1.5031E+05   3.9817E-12   1.9711E-08   1.2920E-02   3.0362E+01   8.2060E-10   2.4887E-06   5.719E+01 (m)   Sc 49
Ti 46     2.5495E+17
Ti 47     2.2992E+17
Ti 48     2.2782E+18
Ti 49     1.6719E+17
Ti 50     1.6008E+17
 V 50     2.2221E+14   5.7258E-24   3.8824E+01   1.5176E-11   3.2771E-11   8.8571E-22   1.6064E-16   1.489E+11(My)    V 50
 V 51     8.8661E+16
 V 52     9.2658E+01   1.1506E-13   3.7298E-11   1.7618E-01   2.8585E-01   7.7256E-12   4.0035E-09   3.745E+00 (m)    V 52
Cr 50     3.1921E+15
Cr 52     6.1558E+16
Cr 53     6.9793E+15
Cr 54     1.7375E+15
Mn 55     3.2198E+17
Mn 56     7.7761E+04   2.3479E-12   3.1448E-08   4.2015E+00   5.8057E+00   1.5691E-10   1.4514E-06   2.579E+00 (h)   Mn 56
Fe 54     1.4290E+20
Fe 55     2.1734E+09   1.6471E-14   2.0510E-06   1.2404E-02   1.7454E+01   4.7174E-10   5.7605E-06   2.735E+00 (y)   Fe 55
Fe 56     2.2412E+21
Fe 57     5.1785E+19
Fe 58     6.8395E+18
Fe 59     2.3192E+07   8.7561E-13   4.8564E-06   2.1161E+00   4.1815E+00   1.1301E-10   7.5208E-06   4.450E+01 (d)   Fe 59
    AJBRF Reactor

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2
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Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	1.1024E+05	1.9296E-13	2.6379E-08	1.4869E-01	8.0643E-01	2.1796E-11	1.2903E-06	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3763E+02	3.6862E-14	5.6160E-11	9.4126E-03	2.8725E-01	7.7636E-12	8.8932E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	4.0468E+05	8.8556E-14	2.1479E-08	4.3989E-02	1.6685E+00	4.5095E-11	1.2359E-06	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239
Np239	1.0805E+05	2.6246E-14	7.7035E-09	2.8540E-02	3.6813E-01	9.9496E-12	2.9451E-07	2.355E+00 (d)	Np239

here are 114 Nuclides.

Totals: 4.4129E+22 1.0029E-09 1.847787E+04 1.5180E+03 2.2573E+03 6.1008E-08 1.7541E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 38.04 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.82348E+08
He	2.16460E+10
Na	1.09073E+19
Mg	5.01554E+08
Al	1.10676E+22
Si	1.88157E+11
P	5.71010E+05
S	9.35628E+20
Cl	4.35798E+09
Ar	5.93283E+08

K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.51502E+07
As	1.13335E+16
Se	7.47837E+07
Br	3.54167E+15
Kr	3.38654E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.48503E+06
In	3.12104E-07
Sn	3.32980E+05
Sb	1.16227E+15
Te	2.00698E+07
I	6.63900E-03
Xe	3.94319E+06
Cs	8.22353E+05
Ba	2.08115E+17
La	3.22987E+06
Ce	1.64598E-01
Pr	5.29245E-02
Nd	5.94389E+04
Pm	6.57762E+04
Sm	1.88252E+15
Eu	1.51042E+08
Gd	1.24753E+06
Lu	0.00000E+00
Hf	1.69363E-02
Ta	2.33515E+04
W	7.69706E+14
Re	2.41407E+06
Hg	1.96582E-01
Tl	6.89230E-01
Pb	4.78079E+15
Bi	2.05487E+03
Th	1.88000E-02
U	1.18888E+15
Np	1.08052E+05
Pu	3.30944E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1120E-01	2.0219E+00
2	(0.1 -> 0.2 MeV)	1.5456E-01	9.9714E-01
3	(0.2 -> 0.4 MeV)	2.5959E-01	8.6528E-01
4	(0.4 -> 0.6 MeV)	2.2051E+00	4.4103E+00
5	(0.6 -> 0.8 MeV)	5.7829E-02	8.2613E-02
6	(0.8 -> 1.0 MeV)	5.0449E+00	5.6054E+00
7	(1.0 ->1.22 MeV)	2.7459E+00	2.4738E+00
8	(1.22 ->1.44 MeV)	1.1132E+01	8.3699E+00
9	(1.44 ->1.66 MeV)	5.8870E+01	3.7981E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3621E+00	1.0498E+00
12	(2.5 -> 3.0 MeV)	1.5626E+01	5.6823E+00
13	(3.0 -> 4.0 MeV)	8.6292E+01	2.4655E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4655E+01	5.6823E+00
1.0498E+00	1.8385E+03	4.6350E+01	2.4738E+00	5.6054E+00	8.2613E-02
4.4103E+00	4.3264E-01	4.3264E-01	9.9714E-01	1.0110E+00	1.0110E+00

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.7051E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.3868E+11	8.2796E-17	3.8817E-04	2.9306E-05	1.5756E-01	4.2584E-12	4.5670E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	2.0374E+08	1.2427E-13	2.5202E-06	0.0000E+00	1.0046E+01	2.7152E-10	7.6108E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.7182E+09	1.3022E-14	1.6215E-06	9.8068E-03	1.3799E+01	3.7295E-10	4.5542E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							

W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
338.6 (d)		4.4256E-13	1.847787E+04	1.9215E-01	2.6744E+01	7.2280E-10	2.9699E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.3106E-02	4.2011E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	2.1005E-01	2.1005E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.82348E+08
He	2.16460E+10
Na	1.09073E+19
Mg	5.01987E+08
Al	1.10676E+22
Si	1.88157E+11
P	5.52673E+01
S	9.35628E+20
Cl	4.43322E+09
Ar	5.26650E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.51622E+07
As	1.13335E+16
Se	7.48941E+07
Br	3.54167E+15
Kr	3.38873E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50026E+06
In	0.00000E+00
Sn	3.34224E+05
Sb	1.16227E+15
Te	2.02615E+07
I	6.77338E-03
Xe	4.02218E+06
Cs	8.22413E+05
Ba	2.08115E+17

La	3.23013E+06
Ce	1.65365E-01
Pr	5.29315E-02
Nd	6.18437E+04
Pm	6.63365E+04
Sm	1.88252E+15
Eu	1.51441E+08
Gd	1.28269E+06
Lu	0.00000E+00
Hf	1.69363E-02
Ta	2.38990E+04
W	7.69706E+14
Re	2.42720E+06
Hg	1.95069E-01
Tl	6.91430E-01
Pb	4.78079E+15
Bi	2.05526E+03
Th	2.21932E-02
U	1.18888E+15
Np	5.54030E-39
Pu	3.32023E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.795E-04	9.605E+02	2.257E+03	6.101E-02	1.754E-04	1.003E-09	1.847787E+04
338.6 (d)	4.804E-08	1.138E+01	2.674E+01	7.228E-04	2.970E-05	4.426E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete Sl :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.257E+03	3.795E-04	1.754E-04	1.003E-09
338.6 (d)	2.674E+01	4.804E-08	2.970E-05	4.426E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.605E+05	4.268E-10	2.596E-05	1.518E+03
338.6 (d)	1.138E+04	1.883E-13	3.076E-07	1.921E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.605E+02	3.795E-04	4.268E-10	2.768E+03
338.6 (d)	1.138E+01	4.804E-08	1.883E-13	4.245E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	

Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)		
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)		
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)		
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)		
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)		
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)		
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)		
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals :	2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)		
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals :	2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)		
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals :	2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)		
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals :	2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)		
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals :	2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)		
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals :	2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)		
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals :	2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)		
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals :	2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)		
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals :	2
	Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)		
Step 29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals :	2
	Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)		
Step 30 :	Activation of	4.29096E+06(s), i.e.	49.66 (d)	29.11 (y)	Intervals :	2
	Cold Pause of	2.72450E+07(s), i.e.	315.34 (d)	29.98 (y)		
Step 31 :	Activation of	2.37474E+06(s), i.e.	27.49 (d)	30.05 (y)	Intervals :	2
	Cold Pause of	2.91613E+07(s), i.e.	337.52 (d)	30.98 (y)		
Step 32 :	Activation of	1.67827E+06(s), i.e.	19.42 (d)	31.03 (y)	Intervals :	2
	Cold Pause of	2.98577E+07(s), i.e.	345.58 (d)	31.98 (y)		
Step 33 :	Activation of	1.58702E+06(s), i.e.	18.37 (d)	32.03 (y)	Intervals :	2
	Cold Pause of	2.99490E+07(s), i.e.	346.63 (d)	32.97 (y)		
Step 34 :	Activation of	1.45885E+06(s), i.e.	16.88 (d)	33.02 (y)	Intervals :	2
	Cold Pause of	3.00772E+07(s), i.e.	348.12 (d)	33.97 (y)		
Step 35 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	34.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	34.97 (y)		
Step 36 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	35.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	35.97 (y)		
Step 37 :	Activation of	1.80003E+06(s), i.e.	20.83 (d)	36.03 (y)	Intervals :	2
	Cold Pause of	2.97360E+07(s), i.e.	344.17 (d)	36.97 (y)		
Step 38 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	37.04 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	37.97 (y)		
Step 39 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	38.04 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	38.97 (y)		
Step 40 :	Activation of	7.76520E+04(s), i.e.	21.57 (h)	38.97 (y)	Intervals :	2

Cooling Times (s) :

3.1458E+07

364.1 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2411E+03	6.0571E-08	1.7080E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3024E-13	1.847787E+04	1.8637E-01	1.8127E+01	4.8992E-10	2.6703E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2451E+03	6.0678E-08	1.7275E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3648E-13	1.847787E+04	1.8775E-01	2.0433E+01	5.5225E-10	2.7616E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2473E+03	6.0738E-08	1.7362E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 4.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3884E-13	1.847787E+04	1.8882E-01	2.2017E+01	5.9504E-10	2.8170E-05

Step : 5

Elapsed Time : 4.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2489E+03	6.0780E-08	1.7416E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 5.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4014E-13	1.847787E+04	1.8965E-01	2.3204E+01	6.2714E-10	2.8569E-05

Step : 6

Elapsed Time : 5.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2500E+03	6.0812E-08	1.7455E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4104E-13	1.847787E+04	1.9029E-01	2.4118E+01	6.5184E-10	2.8872E-05

Step : 7

Elapsed Time : 6.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2509E+03	6.0836E-08	1.7485E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4171E-13	1.847787E+04	1.9080E-01	2.4826E+01	6.7098E-10	2.9106E-05

Step : 8

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Elapsed Time   :      7.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :  9

Elapsed Time   :      8.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
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        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

 Step :  16

 Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

 Step :  17

 Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

 Step :  18

 Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

 Step :  19

 Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

 Step :  20

 Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

 Step :  21

 Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

 Step :  22

 Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :     21.98 (y)
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            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5178E+03   2.2810E+03   6.1650E-08   1.9353E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.0758E-13 1.847787E+04   1.9439E-01   3.4894E+01   9.4308E-10   3.4535E-05
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Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0022E-09 1.847787E+04   1.5166E+03   2.2389E+03   6.0510E-08   1.6528E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0918E-13 1.847787E+04   1.9308E-01   2.5239E+01   6.8214E-10   2.8007E-05

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5165E+03   2.2332E+03   6.0358E-08   1.6201E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.9923E-13 1.847787E+04   1.9213E-01   2.3210E+01   6.2730E-10   2.7037E-05

Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5172E+03   2.2503E+03   6.0819E-08   1.7326E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3429E-13 1.847787E+04   1.9223E-01   2.6170E+01   7.0730E-10   2.9221E-05

Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2530E+03   6.0892E-08   1.7524E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4177E-13 1.847787E+04   1.9230E-01   2.6873E+01   7.2629E-10   2.9708E-05

Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5168E+03   2.2428E+03   6.0617E-08   1.6875E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2115E-13 1.847787E+04   1.9188E-01   2.4655E+01   6.6635E-10   2.8283E-05


Step :  38

Elapsed Time   :     37.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0854E-08   1.7438E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     37.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3873E-13 1.847787E+04   1.9203E-01   2.6277E+01   7.1020E-10   2.9419E-05


Step :  39

Elapsed Time   :     38.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2531E+03   6.0894E-08   1.7541E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     38.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4256E-13 1.847787E+04   1.9215E-01   2.6744E+01   7.2280E-10   2.9699E-05


Step :  40
     AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     38.97 (y)          Cooling Time 0.

Nuclide      N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23      1.0907E+19
Na 24      2.7339E+05   2.6320E-12   2.0483E-07   6.1654E+00   3.5131E+00   9.4948E-11   1.5078E-06   1.498E+01 (h)   Na 24
Na 24m1    1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27      1.1068E+22
Al 28      3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28      1.7066E+11
 S 32      8.8903E+20
 S 33      7.0172E+18
 S 34      3.9390E+19
 S 36      1.8713E+17
Ar 37      2.9193E+06   2.8690E-16   1.2528E-09   9.2028E-05   6.6852E-01   1.8068E-11   5.6178E-08   3.503E+01 (d)   Ar 37
 K 39      1.2658E+21
 K 40      1.5880E+17   2.9639E-13   1.7272E+04   1.8228E-01   2.7250E+00   7.3649E-11   1.6926E-05   1.280E+03(My)   K 40
 K 41      9.1347E+19
 K 42      9.1396E+06   3.9037E-11   2.5088E-06   1.7936E+01   1.4221E+02   3.8436E-09   6.1035E-05   1.237E+01 (h)   K 42
Ca 40      2.7445E+22
Ca 41      7.3932E+11   8.2867E-17   3.8850E-04   2.9331E-05   1.5770E-01   4.2621E-12   4.5709E-08   1.030E+05 (y)   Ca 41
Ca 42      1.8317E+20
Ca 43      3.8219E+19
Ca 44      5.9056E+20
Ca 45      2.2763E+08   1.3885E-13   2.8158E-06   0.0000E+00   1.1224E+01   3.0336E-10   8.5033E-06   1.627E+02 (d)   Ca 45
Ca 46      1.1324E+18
Ca 48      5.2941E+19
Ca 49      2.2915E+04   1.9634E-11   1.4818E-08   4.0919E+01   3.0362E+01   8.2060E-10   3.9482E-06   8.719E+00 (m)   Ca 49
Sc 45      1.2591E+16
Sc 49      1.5031E+05   3.9817E-12   1.9711E-08   1.2920E-02   3.0362E+01   8.2060E-10   2.4887E-06   5.719E+01 (m)   Sc 49
Ti 46      2.5495E+17
Ti 47      2.2992E+17
Ti 48      2.2782E+18
Ti 49      1.6719E+17
Ti 50      1.6008E+17
 V 50      2.2221E+14   5.7258E-24   3.8824E+01   1.5176E-11   3.2771E-11   8.8571E-22   1.6064E-16   1.489E+11(My)   V 50
 V 51      8.8661E+16
 V 52      9.2658E+01   1.1506E-13   3.7298E-11   1.7618E-01   2.8585E-01   7.7256E-12   4.0035E-09   3.745E+00 (m)   V 52
Cr 50      3.1921E+15
Cr 52      6.1558E+16
Cr 53      6.9793E+15
Cr 54      1.7375E+15
Mn 55      3.2198E+17
Mn 56      7.7525E+04   2.3408E-12   3.1353E-08   4.1887E+00   5.7880E+00   1.5643E-10   1.4470E-06   2.579E+00 (h)   Mn 56
Fe 54      1.4290E+20
Fe 55      1.7346E+09   1.3146E-14   1.6369E-06   9.9001E-03   1.3931E+01   3.7650E-10   4.5975E-06   2.735E+00 (y)   Fe 55
Fe 56      2.2412E+21
Fe 57      5.1785E+19
Fe 58      6.8395E+18
Co 59      1.4406E+16
Co 60m1    6.2401E+02   7.0265E-15   6.3704E-12   2.0292E-03   6.8829E-01   1.8602E-11   1.1706E-09   1.047E+01 (m)   Co 60m1
Ni 58      2.9537E+16
Ni 60      1.1378E+16
     AJBRF Reactor

Nuclide      N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2
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Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	4.7775E+04	8.3622E-14	1.1432E-08	6.4437E-02	3.4947E-01	9.4452E-12	5.5916E-07	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3418E+02	3.6572E-14	5.5718E-11	9.3384E-03	2.8499E-01	7.7024E-12	8.8232E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	1.1088E+05	2.4263E-14	5.8849E-09	1.2052E-02	4.5715E-01	1.2355E-11	3.3863E-07	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239

here are 109 Nuclides.

Totals: 4.4129E+22 9.8314E-10 1.847787E+04 1.5043E+03 2.1374E+03 5.7768E-08 1.1130E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 38.97 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.82849E+08
He	2.16647E+10
Na	1.09073E+19
Mg	5.02146E+08
Al	1.10676E+22
Si	1.88320E+11
P	2.70309E+04
S	9.35628E+20
Cl	4.43385E+09
Ar	5.29961E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16

Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.51759E+07
As	1.13335E+16
Se	7.49107E+07
Br	3.54167E+15
Kr	3.39078E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50050E+06
In	3.12104E-07
Sn	3.34255E+05
Sb	1.16227E+15
Te	2.02628E+07
I	6.77344E-03
Xe	4.02218E+06
Cs	8.22570E+05
Ba	2.08115E+17
La	3.23262E+06
Ce	1.65378E-01
Pr	5.29696E-02
Nd	6.18501E+04
Pm	6.63356E+04
Sm	1.88252E+15
Eu	1.51461E+08
Gd	1.28278E+06
Lu	0.00000E+00
Hf	1.69509E-02
Ta	2.38995E+04
W	7.69706E+14
Re	2.42764E+06
Hg	1.95302E-01
Tl	6.91681E-01
Pb	4.78079E+15
Bi	2.05657E+03
Th	2.02490E-02
U	1.18888E+15
Np	2.45500E+04
Pu	3.32056E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	5.4930E-02	9.9873E-01
2	(0.1 -> 0.2 MeV)	1.5103E-02	9.7437E-02
3	(0.2 -> 0.4 MeV)	1.5644E-01	5.2145E-01
4	(0.4 -> 0.6 MeV)	2.0711E+00	4.1422E+00
5	(0.6 -> 0.8 MeV)	3.4942E-02	4.9917E-02
6	(0.8 -> 1.0 MeV)	4.9753E+00	5.5281E+00
7	(1.0 ->1.22 MeV)	9.5454E-02	8.5995E-02
8	(1.22 ->1.44 MeV)	5.5416E+00	4.1666E+00
9	(1.44 ->1.66 MeV)	4.1410E+01	2.6716E+01
10	(1.66 -> 2.0 MeV)	3.3644E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3156E+00	1.0292E+00
12	(2.5 -> 3.0 MeV)	9.9778E+00	3.6283E+00
13	(3.0 -> 4.0 MeV)	8.6288E+01	2.4654E+01
14	(4.0 -> 5.0 MeV)	8.9585E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4654E+01	3.6283E+00
1.0292E+00	1.8385E+03	3.0883E+01	8.5995E-02	5.5281E+00	4.9917E-02
4.1422E+00	2.6073E-01	2.6073E-01	9.7437E-02	4.9936E-01	4.9936E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 364.10 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Na 23	1.0907E+19						
Al 27	1.1068E+22						
Si 28	1.7066E+11						

S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.3931E+11	8.2867E-17	3.8850E-04	2.9331E-05	1.5769E-01	4.2620E-12	4.5709E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	4.8256E+07	2.9434E-14	5.9692E-07	0.0000E+00	2.3795E+00	6.4310E-11	1.8026E-06	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.3473E+09	1.0211E-14	1.2715E-06	7.6899E-03	1.0820E+01	2.9245E-10	3.5711E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							

U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
364.1 (d)		3.4491E-13	1.847787E+04	1.9003E-01	1.6098E+01	4.3509E-10	2.2908E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 364.10 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.8155E-02	3.3010E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.6505E-01	1.6505E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 364.10 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.82849E+08
He	2.16647E+10
Na	1.09073E+19
Mg	5.02419E+08
Al	1.10676E+22
Si	1.88320E+11
P	1.30612E+00
S	9.35628E+20
Cl	4.43779E+09
Ar	5.25762E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.51838E+07
As	1.13335E+16
Se	7.49586E+07
Br	3.54167E+15
Kr	3.39165E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50242E+06
In	0.00000E+00
Sn	3.34511E+05
Sb	1.16227E+15
Te	2.02817E+07
I	6.77942E-03
Xe	4.02564E+06
Cs	8.50215E+05
Ba	2.08115E+17
La	3.23288E+06
Ce	1.65508E-01
Pr	5.29771E-02
Nd	6.44249E+04
Pm	6.53791E+04

Sm	1.88252E+15
Eu	1.51571E+08
Gd	1.31589E+06
Lu	0.00000E+00
Hf	1.69509E-02
Ta	2.39976E+04
W	7.69706E+14
Re	2.42974E+06
Hg	1.95231E-01
Tl	6.92505E-01
Pb	4.78079E+15
Bi	2.05696E+03
Th	2.39003E-02
U	1.18888E+15
Np	7.17465E-43
Pu	3.32299E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.761E-04	9.095E+02	2.137E+03	5.777E-02	1.113E-04	9.831E-10	1.847787E+04
364.1 (d)	4.751E-08	6.850E+00	1.610E+01	4.351E-04	2.291E-05	3.449E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.137E+03	3.761E-04	1.113E-04	9.831E-10
364.1 (d)	1.610E+01	4.751E-08	2.291E-05	3.449E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.095E+05	4.184E-10	2.458E-05	1.504E+03
364.1 (d)	6.850E+03	1.468E-13	1.851E-07	1.900E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.095E+02	3.761E-04	4.184E-10	2.755E+03
364.1 (d)	6.850E+00	4.751E-08	1.468E-13	4.192E-01

			Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2

```
                Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    13.99 (y)

Step   15 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    14.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    14.99 (y)

Step   16 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    15.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    15.99 (y)

Step   17 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    16.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    16.99 (y)

Step   18 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    17.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    17.99 (y)

Step   19 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    18.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    18.99 (y)

Step   20 : Activation of  3.31020E+06(s), i.e.     38.31 (d)    19.09 (y)      Intervals :  2
            Cold Pause of  2.82258E+07(s), i.e.    326.69 (d)    19.98 (y)

Step   21 : Activation of  2.82600E+06(s), i.e.     32.71 (d)    20.07 (y)      Intervals :  2
            Cold Pause of  2.87100E+07(s), i.e.    332.29 (d)    20.98 (y)

Step   22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)    21.05 (y)      Intervals :  2
            Cold Pause of  2.93940E+07(s), i.e.    340.21 (d)    21.98 (y)

Step   23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)    22.05 (y)      Intervals :  2
            Cold Pause of  2.94120E+07(s), i.e.    340.42 (d)    22.98 (y)

Step   24 : Activation of  1.38060E+06(s), i.e.     15.98 (d)    23.03 (y)      Intervals :  2
            Cold Pause of  3.01554E+07(s), i.e.    349.02 (d)    23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.      7.98 (d)    24.00 (y)      Intervals :  2
            Cold Pause of  3.08467E+07(s), i.e.    357.02 (d)    24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.     27.54 (d)    25.06 (y)      Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.    337.46 (d)    25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)    26.06 (y)      Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.    336.64 (d)    26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.     48.43 (d)    27.11 (y)      Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.    316.57 (d)    27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.     36.58 (d)    28.08 (y)      Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.    328.42 (d)    28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)    29.11 (y)      Intervals :  2
            Cold Pause of  2.72450E+07(s), i.e.    315.34 (d)    29.98 (y)

Step   31 : Activation of  2.37474E+06(s), i.e.     27.49 (d)    30.05 (y)      Intervals :  2
            Cold Pause of  2.91613E+07(s), i.e.    337.52 (d)    30.98 (y)

Step   32 : Activation of  1.67827E+06(s), i.e.     19.42 (d)    31.03 (y)      Intervals :  2
            Cold Pause of  2.98577E+07(s), i.e.    345.58 (d)    31.98 (y)

Step   33 : Activation of  1.58702E+06(s), i.e.     18.37 (d)    32.03 (y)      Intervals :  2
            Cold Pause of  2.99490E+07(s), i.e.    346.63 (d)    32.97 (y)

Step   34 : Activation of  1.45885E+06(s), i.e.     16.88 (d)    33.02 (y)      Intervals :  2
            Cold Pause of  3.00772E+07(s), i.e.    348.12 (d)    33.97 (y)

Step   35 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    34.05 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    34.97 (y)

Step   36 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    35.05 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    35.97 (y)

Step   37 : Activation of  1.80003E+06(s), i.e.     20.83 (d)    36.03 (y)      Intervals :  2
            Cold Pause of  2.97360E+07(s), i.e.    344.17 (d)    36.97 (y)

Step   38 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    37.04 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    37.97 (y)

Step   39 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    38.04 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    38.97 (y)

Step   40 : Activation of  7.76520E+04(s), i.e.     21.57 (h)    38.97 (y)      Intervals :  2
            Cold Pause of  3.14583E+07(s), i.e.    364.10 (d)    39.97 (y)

Step   41 : Activation of  9.27846E+04(s), i.e.      1.07 (d)    39.97 (y)      Intervals :  2

Cooling Times (s)  :

  3.1443E+07

   363.9 (d)
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AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0025E-09	1.847787E+04	1.5171E+03	2.2307E+03	6.0290E-08	1.6428E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.0702E-13	1.847787E+04	1.8460E-01	1.3944E+01	3.7687E-10	2.4601E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2411E+03	6.0571E-08	1.7080E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3024E-13	1.847787E+04	1.8637E-01	1.8127E+01	4.8992E-10	2.6703E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2451E+03	6.0678E-08	1.7275E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3648E-13	1.847787E+04	1.8775E-01	2.0433E+01	5.5225E-10	2.7616E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5171E+03	2.2473E+03	6.0738E-08	1.7362E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 4.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.3884E-13	1.847787E+04	1.8882E-01	2.2017E+01	5.9504E-10	2.8170E-05

Step : 5

Elapsed Time : 4.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2489E+03	6.0780E-08	1.7416E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 5.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4014E-13	1.847787E+04	1.8965E-01	2.3204E+01	6.2714E-10	2.8569E-05

Step : 6

Elapsed Time : 5.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2500E+03	6.0812E-08	1.7455E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4104E-13	1.847787E+04	1.9029E-01	2.4118E+01	6.5184E-10	2.8872E-05

Step : 7

Elapsed Time : 6.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	1.0026E-09	1.847787E+04	1.5172E+03	2.2509E+03	6.0836E-08	1.7485E-04

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	4.4171E-13	1.847787E+04	1.9080E-01	2.4826E+01	6.7098E-10	2.9106E-05

Step : 8

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Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
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            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5178E+03   2.2810E+03   6.1650E-08   1.9353E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.0758E-13 1.847787E+04   1.9439E-01   3.4894E+01   9.4308E-10   3.4535E-05
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Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0022E-09 1.847787E+04   1.5166E+03   2.2389E+03   6.0510E-08   1.6528E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0918E-13 1.847787E+04   1.9308E-01   2.5239E+01   6.8214E-10   2.8007E-05

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5165E+03   2.2332E+03   6.0358E-08   1.6201E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.9923E-13 1.847787E+04   1.9213E-01   2.3210E+01   6.2730E-10   2.7037E-05

Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5172E+03   2.2503E+03   6.0819E-08   1.7326E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3429E-13 1.847787E+04   1.9223E-01   2.6170E+01   7.0730E-10   2.9221E-05

Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2530E+03   6.0892E-08   1.7524E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4177E-13 1.847787E+04   1.9230E-01   2.6873E+01   7.2629E-10   2.9708E-05

Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5168E+03   2.2428E+03   6.0617E-08   1.6875E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2115E-13 1.847787E+04   1.9188E-01   2.4655E+01   6.6635E-10   2.8283E-05


Step :  38

Elapsed Time   :     37.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0854E-08   1.7438E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     37.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3873E-13 1.847787E+04   1.9203E-01   2.6277E+01   7.1020E-10   2.9419E-05


Step :  39

Elapsed Time   :     38.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2531E+03   6.0894E-08   1.7541E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     38.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4256E-13 1.847787E+04   1.9215E-01   2.6744E+01   7.2280E-10   2.9699E-05


Step :  40

Elapsed Time   :     38.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   9.8281E-10 1.847787E+04   1.5034E+03   2.1332E+03   5.7654E-08   1.1130E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     39.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.4491E-13 1.847787E+04   1.9003E-01   1.6098E+01   4.3509E-10   2.2908E-05


Step :  41
     AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     39.97 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     3.0160E+05   2.9036E-12   2.2596E-07   6.8017E+00   3.8756E+00   1.0475E-10   1.6634E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28     1.7083E+11
 S 32     8.8903E+20
 S 33     7.0172E+18
 S 34     3.9390E+19
 S 36     1.8713E+17
Ar 37     3.3898E+06   3.3314E-16   1.4548E-09   1.0686E-04   7.7627E-01   2.0980E-11   6.5233E-08   3.503E+01 (d)   Ar 37
 K 39     1.2658E+21
 K 40     1.5880E+17   2.9639E-13   1.7272E+04   1.8228E-01   2.7250E+00   7.3649E-11   1.6926E-05   1.280E+03(My)   K 40
 K 41     9.1347E+19
 K 42     9.9563E+06   4.2526E-11   2.7330E-06   1.9539E+01   1.5492E+02   4.1870E-09   6.6489E-05   1.237E+01 (h)   K 42
Ca 40     2.7445E+22
Ca 41     7.4007E+11   8.2952E-17   3.8890E-04   2.9361E-05   1.5786E-01   4.2664E-12   4.5756E-08   1.030E+05 (y)   Ca 41
Ca 42     1.8317E+20
Ca 43     3.8219E+19
Ca 44     5.9056E+20
Ca 45     7.7504E+07   4.7275E-14   9.5872E-07   0.0000E+00   3.8217E+00   1.0329E-10   2.8952E-06   1.627E+02 (d)   Ca 45
Ca 46     1.1324E+18
Ca 48     5.2941E+19
Ca 49     2.2915E+04   1.9634E-11   1.4818E-08   4.0919E+01   3.0362E+01   8.2060E-10   3.9482E-06   8.719E+00 (m)   Ca 49
Sc 45     1.2591E+16
Sc 49     1.5031E+05   3.9817E-12   1.9711E-08   1.2920E-02   3.0362E+01   8.2060E-10   2.4887E-06   5.719E+01 (m)   Sc 49
Ti 46     2.5495E+17
Ti 47     2.2992E+17
Ti 48     2.2782E+18
Ti 49     1.6719E+17
Ti 50     1.6008E+17
 V 50     2.2221E+14   5.7258E-24   3.8824E+01   1.5176E-11   3.2771E-11   8.8571E-22   1.6064E-16   1.489E+11(My)   V 50
 V 51     8.8661E+16
 V 52     9.2658E+01   1.1506E-13   3.7298E-11   1.7618E-01   2.8585E-01   7.7256E-12   4.0035E-09   3.745E+00 (m)   V 52
Cr 50     3.1921E+15
Cr 52     6.1558E+16
Cr 53     6.9793E+15
Cr 54     1.7375E+15
Mn 55     3.2198E+17
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Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0022E-09 1.847787E+04   1.5166E+03   2.2389E+03   6.0510E-08   1.6528E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0918E-13 1.847787E+04   1.9308E-01   2.5239E+01   6.8214E-10   2.8007E-05

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5165E+03   2.2332E+03   6.0358E-08   1.6201E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.9923E-13 1.847787E+04   1.9213E-01   2.3210E+01   6.2730E-10   2.7037E-05

Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5172E+03   2.2503E+03   6.0819E-08   1.7326E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3429E-13 1.847787E+04   1.9223E-01   2.6170E+01   7.0730E-10   2.9221E-05

Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2530E+03   6.0892E-08   1.7524E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4177E-13 1.847787E+04   1.9230E-01   2.6873E+01   7.2629E-10   2.9708E-05

Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5168E+03   2.2428E+03   6.0617E-08   1.6875E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2115E-13 1.847787E+04   1.9188E-01   2.4655E+01   6.6635E-10   2.8283E-05


Step :  38

Elapsed Time   :     37.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0854E-08   1.7438E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     37.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3873E-13 1.847787E+04   1.9203E-01   2.6277E+01   7.1020E-10   2.9419E-05


Step :  39

Elapsed Time   :     38.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2531E+03   6.0894E-08   1.7541E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     38.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4256E-13 1.847787E+04   1.9215E-01   2.6744E+01   7.2280E-10   2.9699E-05


Step :  40

Elapsed Time   :     38.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   9.8281E-10 1.847787E+04   1.5034E+03   2.1332E+03   5.7654E-08   1.1130E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     39.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.4491E-13 1.847787E+04   1.9003E-01   1.6098E+01   4.3509E-10   2.2908E-05


Step :  41
    AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     39.97 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     3.0160E+05   2.9036E-12   2.2596E-07   6.8017E+00   3.8756E+00   1.0475E-10   1.6634E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28     1.7083E+11
S 32      8.8903E+20
S 33      7.0172E+18
S 34      3.9390E+19
S 36      1.8713E+17
Ar 37     3.3898E+06   3.3314E-16   1.4548E-09   1.0686E-04   7.7627E-01   2.0980E-11   6.5233E-08   3.503E+01 (d)   Ar 37
K 39      1.2658E+21
K 40      1.5880E+17   2.9639E-13   1.7272E+04   1.8228E-01   2.7250E+00   7.3649E-11   1.6926E-05   1.280E+03(My)   K 40
K 41      9.1347E+19
K 42      9.9563E+06   4.2526E-11   2.7330E-06   1.9539E+01   1.5492E+02   4.1870E-09   6.6489E-05   1.237E+01 (h)   K 42
Ca 40     2.7445E+22
Ca 41     7.4007E+11   8.2952E-17   3.8890E-04   2.9361E-05   1.5786E-01   4.2664E-12   4.5756E-08   1.030E+05 (y)   Ca 41
Ca 42     1.8317E+20
Ca 43     3.8219E+19
Ca 44     5.9056E+20
Ca 45     7.7504E+07   4.7275E-14   9.5872E-07   0.0000E+00   3.8217E+00   1.0329E-10   2.8952E-06   1.627E+02 (d)   Ca 45
Ca 46     1.1324E+18
Ca 48     5.2941E+19
Ca 49     2.2915E+04   1.9634E-11   1.4818E-08   4.0919E+01   3.0362E+01   8.2060E-10   3.9482E-06   8.719E+00 (m)   Ca 49
Sc 45     1.2591E+16
Sc 49     1.5031E+05   3.9817E-12   1.9711E-08   1.2920E-02   3.0362E+01   8.2060E-10   2.4887E-06   5.719E+01 (m)   Sc 49
Ti 46     2.5495E+17
Ti 47     2.2992E+17
Ti 48     2.2782E+18
Ti 49     1.6719E+17
Ti 50     1.6008E+17
V 50      2.2221E+14   5.7258E-24   3.8824E+01   1.5176E-11   3.2771E-11   8.8571E-22   1.6064E-16   1.489E+11(My)   V 50
V 51      8.8661E+16
V 52      9.2658E+01   1.1506E-13   3.7298E-11   1.7618E-01   2.8585E-01   7.7256E-12   4.0035E-09   3.745E+00 (m)   V 52
Cr 50     3.1921E+15
Cr 52     6.1558E+16
Cr 53     6.9793E+15
Cr 54     1.7375E+15
Mn 55     3.2198E+17
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Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
         Production of  H  :       0: appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0022E-09 1.847787E+04   1.5166E+03   2.2389E+03   6.0510E-08   1.6528E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.0918E-13 1.847787E+04   1.9308E-01   2.5239E+01   6.8214E-10   2.8007E-05

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5165E+03   2.2332E+03   6.0358E-08   1.6201E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   3.9923E-13 1.847787E+04   1.9213E-01   2.3210E+01   6.2730E-10   2.7037E-05

Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5172E+03   2.2503E+03   6.0819E-08   1.7326E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.3429E-13 1.847787E+04   1.9223E-01   2.6170E+01   7.0730E-10   2.9221E-05

Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2530E+03   6.0892E-08   1.7524E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.4177E-13 1.847787E+04   1.9230E-01   2.6873E+01   7.2629E-10   2.9708E-05

Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
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otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5168E+03   2.2428E+03   6.0617E-08   1.6875E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2115E-13 1.847787E+04   1.9188E-01   2.4655E+01   6.6635E-10   2.8283E-05


Step :  38

Elapsed Time   :     37.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0854E-08   1.7438E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     37.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3873E-13 1.847787E+04   1.9203E-01   2.6277E+01   7.1020E-10   2.9419E-05


Step :  39

Elapsed Time   :     38.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2531E+03   6.0894E-08   1.7541E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     38.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4256E-13 1.847787E+04   1.9215E-01   2.6744E+01   7.2280E-10   2.9699E-05


Step :  40

Elapsed Time   :     38.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   9.8281E-10 1.847787E+04   1.5034E+03   2.1332E+03   5.7654E-08   1.1130E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     39.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.4491E-13 1.847787E+04   1.9003E-01   1.6098E+01   4.3509E-10   2.2908E-05


Step :  41
     AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     39.97 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     3.0160E+05   2.9036E-12   2.2596E-07   6.8017E+00   3.8756E+00   1.0475E-10   1.6634E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28     1.7083E+11
 S 32     8.8903E+20
 S 33     7.0172E+18
 S 34     3.9390E+19
 S 36     1.8713E+17
Ar 37     3.3898E+06   3.3314E-16   1.4548E-09   1.0686E-04   7.7627E-01   2.0980E-11   6.5233E-08   3.503E+01 (d)   Ar 37
 K 39     1.2658E+21
 K 40     1.5880E+17   2.9639E-13   1.7272E+04   1.8228E-01   2.7250E+00   7.3649E-11   1.6926E-05   1.280E+03(My)   K 40
 K 41     9.1347E+19
 K 42     9.9563E+06   4.2526E-11   2.7330E-06   1.9539E+01   1.5492E+02   4.1870E-09   6.6489E-05   1.237E+01 (h)   K 42
Ca 40     2.7445E+22
Ca 41     7.4007E+11   8.2952E-17   3.8890E-04   2.9361E-05   1.5786E-01   4.2664E-12   4.5756E-08   1.030E+05 (y)   Ca 41
Ca 42     1.8317E+20
Ca 43     3.8219E+19
Ca 44     5.9056E+20
Ca 45     7.7504E+07   4.7275E-14   9.5872E-07   0.0000E+00   3.8217E+00   1.0329E-10   2.8952E-06   1.627E+02 (d)   Ca 45
Ca 46     1.1324E+18
Ca 48     5.2941E+19
Ca 49     2.2915E+04   1.9634E-11   1.4818E-08   4.0919E+01   3.0362E+01   8.2060E-10   3.9482E-06   8.719E+00 (m)   Ca 49
Sc 45     1.2591E+16
Sc 49     1.5031E+05   3.9817E-12   1.9711E-08   1.2920E-02   3.0362E+01   8.2060E-10   2.4887E-06   5.719E+01 (m)   Sc 49
Ti 46     2.5495E+17
Ti 47     2.2992E+17
Ti 48     2.2782E+18
Ti 49     1.6719E+17
Ti 50     1.6008E+17
 V 50     2.2221E+14   5.7258E-24   3.8824E+01   1.5176E-11   3.2771E-11   8.8571E-22   1.6064E-16   1.489E+11(My)   V 50
 V 51     8.8661E+16
 V 52     9.2658E+01   1.1506E-13   3.7298E-11   1.7618E-01   2.8585E-01   7.7256E-12   4.0035E-09   3.745E+00 (m)   V 52
Cr 50     3.1921E+15
Cr 52     6.1558E+16
Cr 53     6.9793E+15
Cr 54     1.7375E+15
Mn 55     3.2198E+17
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Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0022E-09 1.847787E+04   1.5166E+03   2.2389E+03   6.0510E-08   1.6528E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0918E-13 1.847787E+04   1.9308E-01   2.5239E+01   6.8214E-10   2.8007E-05

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5165E+03   2.2332E+03   6.0358E-08   1.6201E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.9923E-13 1.847787E+04   1.9213E-01   2.3210E+01   6.2730E-10   2.7037E-05

Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5172E+03   2.2503E+03   6.0819E-08   1.7326E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3429E-13 1.847787E+04   1.9223E-01   2.6170E+01   7.0730E-10   2.9221E-05

Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2530E+03   6.0892E-08   1.7524E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4177E-13 1.847787E+04   1.9230E-01   2.6873E+01   7.2629E-10   2.9708E-05

Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5168E+03   2.2428E+03   6.0617E-08   1.6875E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2115E-13 1.847787E+04   1.9188E-01   2.4655E+01   6.6635E-10   2.8283E-05


Step :  38

Elapsed Time   :     37.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0854E-08   1.7438E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     37.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3873E-13 1.847787E+04   1.9203E-01   2.6277E+01   7.1020E-10   2.9419E-05


Step :  39

Elapsed Time   :     38.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2531E+03   6.0894E-08   1.7541E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     38.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4256E-13 1.847787E+04   1.9215E-01   2.6744E+01   7.2280E-10   2.9699E-05


Step :  40

Elapsed Time   :     38.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   9.8281E-10 1.847787E+04   1.5034E+03   2.1332E+03   5.7654E-08   1.1130E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     39.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.4491E-13 1.847787E+04   1.9003E-01   1.6098E+01   4.3509E-10   2.2908E-05


Step :  41
     AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     39.97 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     3.0160E+05   2.9036E-12   2.2596E-07   6.8017E+00   3.8756E+00   1.0475E-10   1.6634E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28     1.7083E+11
 S 32     8.8903E+20
 S 33     7.0172E+18
 S 34     3.9390E+19
 S 36     1.8713E+17
Ar 37     3.3898E+06   3.3314E-16   1.4548E-09   1.0686E-04   7.7627E-01   2.0980E-11   6.5233E-08   3.503E+01 (d)   Ar 37
 K 39     1.2658E+21
 K 40     1.5880E+17   2.9639E-13   1.7272E+04   1.8228E-01   2.7250E+00   7.3649E-11   1.6926E-05   1.280E+03(My)   K 40
 K 41     9.1347E+19
 K 42     9.9563E+06   4.2526E-11   2.7330E-06   1.9539E+01   1.5492E+02   4.1870E-09   6.6489E-05   1.237E+01 (h)   K 42
Ca 40     2.7445E+22
Ca 41     7.4007E+11   8.2952E-17   3.8890E-04   2.9361E-05   1.5786E-01   4.2664E-12   4.5756E-08   1.030E+05 (y)   Ca 41
Ca 42     1.8317E+20
Ca 43     3.8219E+19
Ca 44     5.9056E+20
Ca 45     7.7504E+07   4.7275E-14   9.5872E-07   0.0000E+00   3.8217E+00   1.0329E-10   2.8952E-06   1.627E+02 (d)   Ca 45
Ca 46     1.1324E+18
Ca 48     5.2941E+19
Ca 49     2.2915E+04   1.9634E-11   1.4818E-08   4.0919E+01   3.0362E+01   8.2060E-10   3.9482E-06   8.719E+00 (m)   Ca 49
Sc 45     1.2591E+16
Sc 49     1.5031E+05   3.9817E-12   1.9711E-08   1.2920E-02   3.0362E+01   8.2060E-10   2.4887E-06   5.719E+01 (m)   Sc 49
Ti 46     2.5495E+17
Ti 47     2.2992E+17
Ti 48     2.2782E+18
Ti 49     1.6719E+17
Ti 50     1.6008E+17
 V 50     2.2221E+14   5.7258E-24   3.8824E+01   1.5176E-11   3.2771E-11   8.8571E-22   1.6064E-16   1.489E+11(My)   V 50
 V 51     8.8661E+16
 V 52     9.2658E+01   1.1506E-13   3.7298E-11   1.7618E-01   2.8585E-01   7.7256E-12   4.0035E-09   3.745E+00 (m)   V 52
Cr 50     3.1921E+15
Cr 52     6.1558E+16
Cr 53     6.9793E+15
Cr 54     1.7375E+15
Mn 55     3.2198E+17
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Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0022E-09 1.847787E+04   1.5166E+03   2.2389E+03   6.0510E-08   1.6528E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0918E-13 1.847787E+04   1.9308E-01   2.5239E+01   6.8214E-10   2.8007E-05

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5165E+03   2.2332E+03   6.0358E-08   1.6201E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.9923E-13 1.847787E+04   1.9213E-01   2.3210E+01   6.2730E-10   2.7037E-05

Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5172E+03   2.2503E+03   6.0819E-08   1.7326E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3429E-13 1.847787E+04   1.9223E-01   2.6170E+01   7.0730E-10   2.9221E-05

Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2530E+03   6.0892E-08   1.7524E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4177E-13 1.847787E+04   1.9230E-01   2.6873E+01   7.2629E-10   2.9708E-05

Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5168E+03   2.2428E+03   6.0617E-08   1.6875E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2115E-13 1.847787E+04   1.9188E-01   2.4655E+01   6.6635E-10   2.8283E-05


Step :  38

Elapsed Time   :     37.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0854E-08   1.7438E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     37.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3873E-13 1.847787E+04   1.9203E-01   2.6277E+01   7.1020E-10   2.9419E-05


Step :  39

Elapsed Time   :     38.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2531E+03   6.0894E-08   1.7541E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     38.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4256E-13 1.847787E+04   1.9215E-01   2.6744E+01   7.2280E-10   2.9699E-05


Step :  40

Elapsed Time   :     38.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   9.8281E-10 1.847787E+04   1.5034E+03   2.1332E+03   5.7654E-08   1.1130E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     39.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.4491E-13 1.847787E+04   1.9003E-01   1.6098E+01   4.3509E-10   2.2908E-05


Step :  41
    AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     39.97 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     3.0160E+05   2.9036E-12   2.2596E-07   6.8017E+00   3.8756E+00   1.0475E-10   1.6634E-06   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28     1.7083E+11
 S 32     8.8903E+20
 S 33     7.0172E+18
 S 34     3.9390E+19
 S 36     1.8713E+17
Ar 37     3.3898E+06   3.3314E-16   1.4548E-09   1.0686E-04   7.7627E-01   2.0980E-11   6.5233E-08   3.503E+01 (d)   Ar 37
 K 39     1.2658E+21
 K 40     1.5880E+17   2.9639E-13   1.7272E+04   1.8228E-01   2.7250E+00   7.3649E-11   1.6926E-05   1.280E+03(My)   K 40
 K 41     9.1347E+19
 K 42     9.9563E+06   4.2526E-11   2.7330E-06   1.9539E+01   1.5492E+02   4.1870E-09   6.6489E-05   1.237E+01 (h)   K 42
Ca 40     2.7445E+22
Ca 41     7.4007E+11   8.2952E-17   3.8890E-04   2.9361E-05   1.5786E-01   4.2664E-12   4.5756E-08   1.030E+05 (y)   Ca 41
Ca 42     1.8317E+20
Ca 43     3.8219E+19
Ca 44     5.9056E+20
Ca 45     7.7504E+07   4.7275E-14   9.5872E-07   0.0000E+00   3.8217E+00   1.0329E-10   2.8952E-06   1.627E+02 (d)   Ca 45
Ca 46     1.1324E+18
Ca 48     5.2941E+19
Ca 49     2.2915E+04   1.9634E-11   1.4818E-08   4.0919E+01   3.0362E+01   8.2060E-10   3.9482E-06   8.719E+00 (m)   Ca 49
Sc 45     1.2591E+16
Sc 49     1.5031E+05   3.9817E-12   1.9711E-08   1.2920E-02   3.0362E+01   8.2060E-10   2.4887E-06   5.719E+01 (m)   Sc 49
Ti 46     2.5495E+17
Ti 47     2.2992E+17
Ti 48     2.2782E+18
Ti 49     1.6719E+17
Ti 50     1.6008E+17
 V 50     2.2221E+14   5.7258E-24   3.8824E+01   1.5176E-11   3.2771E-11   8.8571E-22   1.6064E-16   1.489E+11(My)   V 50
 V 51     8.8661E+16
 V 52     9.2658E+01   1.1506E-13   3.7298E-11   1.7618E-01   2.8585E-01   7.7256E-12   4.0035E-09   3.745E+00 (m)   V 52
Cr 50     3.1921E+15
Cr 52     6.1558E+16
Cr 53     6.9793E+15
Cr 54     1.7375E+15
Mn 55     3.2198E+17
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Mn 56	7.7685E+04	2.3456E-12	3.1417E-08	4.1973E+00	5.8000E+00	1.5676E-10	1.4500E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.3672E+09	1.0361E-14	1.2902E-06	7.8030E-03	1.0980E+01	2.9675E-10	3.6236E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	5.4321E+04	9.5080E-14	1.2998E-08	7.3266E-02	3.9736E-01	1.0739E-11	6.3577E-07	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3585E+02	3.6712E-14	5.5932E-11	9.3743E-03	2.8608E-01	7.7320E-12	8.8571E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	1.2865E+05	2.8153E-14	6.8282E-09	1.3984E-02	5.3043E-01	1.4336E-11	3.9291E-07	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239

here are 109 Nuclides.

Totals: 4.4129E+22 9.8682E-10 1.847787E+04 1.5065E+03 2.1404E+03 5.7848E-08 1.1047E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 39.97 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83448E+08
He	2.16870E+10

Na	1.09073E+19
Mg	5.02635E+08
Al	1.10676E+22
Si	1.88515E+11
P	3.21588E+04
S	9.35628E+20
Cl	4.43848E+09
Ar	5.29715E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52011E+07
As	1.13335E+16
Se	7.49812E+07
Br	3.54167E+15
Kr	3.39416E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50274E+06
In	3.12104E-07
Sn	3.34555E+05
Sb	1.16227E+15
Te	2.02835E+07
I	6.77949E-03
Xe	4.02564E+06
Cs	8.50418E+05
Ba	2.08115E+17
La	3.23595E+06
Ce	1.65525E-01
Pr	5.30241E-02
Nd	6.44324E+04
Pm	6.53749E+04
Sm	1.88252E+15
Eu	1.51598E+08
Gd	1.31598E+06
Lu	0.00000E+00
Hf	1.69683E-02
Ta	2.39977E+04
W	7.69706E+14
Re	2.43034E+06
Hg	1.95502E-01
Tl	6.92879E-01
Pb	4.78079E+15
Bi	2.05830E+03
Th	2.19580E-02
U	1.18888E+15
Np	2.87484E+04
Pu	3.32346E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	5.2349E-02	9.5179E-01
2	(0.1 -> 0.2 MeV)	1.7253E-02	1.1131E-01
3	(0.2 -> 0.4 MeV)	1.7040E-01	5.6802E-01
4	(0.4 -> 0.6 MeV)	2.0836E+00	4.1671E+00
5	(0.6 -> 0.8 MeV)	3.7455E-02	5.3507E-02
6	(0.8 -> 1.0 MeV)	4.9917E+00	5.5463E+00
7	(1.0 ->1.22 MeV)	1.0146E-01	9.1402E-02
8	(1.22 ->1.44 MeV)	6.0394E+00	4.5409E+00
9	(1.44 ->1.66 MeV)	4.5073E+01	2.9079E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3267E+00	1.0341E+00
12	(2.5 -> 3.0 MeV)	1.0976E+01	3.9914E+00
13	(3.0 -> 4.0 MeV)	8.6289E+01	2.4654E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4654E+01	3.9914E+00
1.0341E+00	1.8385E+03	3.3620E+01	9.1402E-02	5.5463E+00	5.3507E-02

Mn 56	7.7685E+04	2.3456E-12	3.1417E-08	4.1973E+00	5.8000E+00	1.5676E-10	1.4500E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.3672E+09	1.0361E-14	1.2902E-06	7.8030E-03	1.0980E+01	2.9675E-10	3.6236E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	5.4321E+04	9.5080E-14	1.2998E-08	7.3266E-02	3.9736E-01	1.0739E-11	6.3577E-07	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3585E+02	3.6712E-14	5.5932E-11	9.3743E-03	2.8608E-01	7.7320E-12	8.8571E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	1.2865E+05	2.8153E-14	6.8282E-09	1.3984E-02	5.3043E-01	1.4336E-11	3.9291E-07	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239

here are 109 Nuclides.

Totals: 4.4129E+22 9.8682E-10 1.847787E+04 1.5065E+03 2.1404E+03 5.7848E-08 1.1047E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 39.97 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83448E+08
He	2.16870E+10

Na	1.09073E+19
Mg	5.02635E+08
Al	1.10676E+22
Si	1.88515E+11
P	3.21588E+04
S	9.35628E+20
Cl	4.43848E+09
Ar	5.29715E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52011E+07
As	1.13335E+16
Se	7.49812E+07
Br	3.54167E+15
Kr	3.39416E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50274E+06
In	3.12104E-07
Sn	3.34555E+05
Sb	1.16227E+15
Te	2.02835E+07
I	6.77949E-03
Xe	4.02564E+06
Cs	8.50418E+05
Ba	2.08115E+17
La	3.23595E+06
Ce	1.65525E-01
Pr	5.30241E-02
Nd	6.44324E+04
Pm	6.53749E+04
Sm	1.88252E+15
Eu	1.51598E+08
Gd	1.31598E+06
Lu	0.00000E+00
Hf	1.69683E-02
Ta	2.39977E+04
W	7.69706E+14
Re	2.43034E+06
Hg	1.95502E-01
Tl	6.92879E-01
Pb	4.78079E+15
Bi	2.05830E+03
Th	2.19580E-02
U	1.18888E+15
Np	2.87484E+04
Pu	3.32346E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	5.2349E-02	9.5179E-01
2	(0.1 -> 0.2 MeV)	1.7253E-02	1.1131E-01
3	(0.2 -> 0.4 MeV)	1.7040E-01	5.6802E-01
4	(0.4 -> 0.6 MeV)	2.0836E+00	4.1671E+00
5	(0.6 -> 0.8 MeV)	3.7455E-02	5.3507E-02
6	(0.8 -> 1.0 MeV)	4.9917E+00	5.5463E+00
7	(1.0 ->1.22 MeV)	1.0146E-01	9.1402E-02
8	(1.22 ->1.44 MeV)	6.0394E+00	4.5409E+00
9	(1.44 ->1.66 MeV)	4.5073E+01	2.9079E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3267E+00	1.0341E+00
12	(2.5 -> 3.0 MeV)	1.0976E+01	3.9914E+00
13	(3.0 -> 4.0 MeV)	8.6289E+01	2.4654E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4654E+01	3.9914E+00
1.0341E+00	1.8385E+03	3.3620E+01	9.1402E-02	5.5463E+00	5.3507E-02

Mn 56	7.7685E+04	2.3456E-12	3.1417E-08	4.1973E+00	5.8000E+00	1.5676E-10	1.4500E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.3672E+09	1.0361E-14	1.2902E-06	7.8030E-03	1.0980E+01	2.9675E-10	3.6236E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	5.4321E+04	9.5080E-14	1.2998E-08	7.3266E-02	3.9736E-01	1.0739E-11	6.3577E-07	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3585E+02	3.6712E-14	5.5932E-11	9.3743E-03	2.8608E-01	7.7320E-12	8.8571E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04 (My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05 (My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09 (My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09 (My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	1.2865E+05	2.8153E-14	6.8282E-09	1.3984E-02	5.3043E-01	1.4336E-11	3.9291E-07	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02 (My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03 (My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239

here are 109 Nuclides.

Totals: 4.4129E+22 9.8682E-10 1.847787E+04 1.5065E+03 2.1404E+03 5.7848E-08 1.1047E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 39.97 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83448E+08
He	2.16870E+10

Na	1.09073E+19
Mg	5.02635E+08
Al	1.10676E+22
Si	1.88515E+11
P	3.21588E+04
S	9.35628E+20
Cl	4.43848E+09
Ar	5.29715E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52011E+07
As	1.13335E+16
Se	7.49812E+07
Br	3.54167E+15
Kr	3.39416E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50274E+06
In	3.12104E-07
Sn	3.34555E+05
Sb	1.16227E+15
Te	2.02835E+07
I	6.77949E-03
Xe	4.02564E+06
Cs	8.50418E+05
Ba	2.08115E+17
La	3.23595E+06
Ce	1.65525E-01
Pr	5.30241E-02
Nd	6.44324E+04
Pm	6.53749E+04
Sm	1.88252E+15
Eu	1.51598E+08
Gd	1.31598E+06
Lu	0.00000E+00
Hf	1.69683E-02
Ta	2.39977E+04
W	7.69706E+14
Re	2.43034E+06
Hg	1.95502E-01
Tl	6.92879E-01
Pb	4.78079E+15
Bi	2.05830E+03
Th	2.19580E-02
U	1.18888E+15
Np	2.87484E+04
Pu	3.32346E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	5.2349E-02	9.5179E-01
2	(0.1 -> 0.2 MeV)	1.7253E-02	1.1131E-01
3	(0.2 -> 0.4 MeV)	1.7040E-01	5.6802E-01
4	(0.4 -> 0.6 MeV)	2.0836E+00	4.1671E+00
5	(0.6 -> 0.8 MeV)	3.7455E-02	5.3507E-02
6	(0.8 -> 1.0 MeV)	4.9917E+00	5.5463E+00
7	(1.0 ->1.22 MeV)	1.0146E-01	9.1402E-02
8	(1.22 ->1.44 MeV)	6.0394E+00	4.5409E+00
9	(1.44 ->1.66 MeV)	4.5073E+01	2.9079E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3267E+00	1.0341E+00
12	(2.5 -> 3.0 MeV)	1.0976E+01	3.9914E+00
13	(3.0 -> 4.0 MeV)	8.6289E+01	2.4654E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4654E+01	3.9914E+00
1.0341E+00	1.8385E+03	3.3620E+01	9.1402E-02	5.5463E+00	5.3507E-02

Mn 56	7.7685E+04	2.3456E-12	3.1417E-08	4.1973E+00	5.8000E+00	1.5676E-10	1.4500E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.3672E+09	1.0361E-14	1.2902E-06	7.8030E-03	1.0980E+01	2.9675E-10	3.6236E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	2.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	5.4321E+04	9.5080E-14	1.2998E-08	7.3266E-02	3.9736E-01	1.0739E-11	6.3577E-07	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3585E+02	3.6712E-14	5.5932E-11	9.3743E-03	2.8608E-01	7.7320E-12	8.8571E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	1.2865E+05	2.8153E-14	6.8282E-09	1.3984E-02	5.3043E-01	1.4336E-11	3.9291E-07	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239

here are 109 Nuclides.

Totals:	4.4129E+22	9.8682E-10	1.847787E+04	1.5065E+03	2.1404E+03	5.7848E-08	1.1047E-04

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 39.97 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83448E+08
He	2.16870E+10

Na	1.09073E+19
Mg	5.02635E+08
Al	1.10676E+22
Si	1.88515E+11
P	3.21588E+04
S	9.35628E+20
Cl	4.43848E+09
Ar	5.29715E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52011E+07
As	1.13335E+16
Se	7.49812E+07
Br	3.54167E+15
Kr	3.39416E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50274E+06
In	3.12104E-07
Sn	3.34555E+05
Sb	1.16227E+15
Te	2.02835E+07
I	6.77949E-03
Xe	4.02564E+06
Cs	8.50418E+05
Ba	2.08115E+17
La	3.23595E+06
Ce	1.65525E-01
Pr	5.30241E-02
Nd	6.44324E+04
Pm	6.53749E+04
Sm	1.88252E+15
Eu	1.51598E+08
Gd	1.31598E+06
Lu	0.00000E+00
Hf	1.69683E-02
Ta	2.39977E+04
W	7.69706E+14
Re	2.43034E+06
Hg	1.95502E-01
Tl	6.92879E-01
Pb	4.78079E+15
Bi	2.05830E+03
Th	2.19580E-02
U	1.18888E+15
Np	2.87484E+04
Pu	3.32346E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor

AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	5.2349E-02	9.5179E-01
2	(0.1 -> 0.2 MeV)	1.7253E-02	1.1131E-01
3	(0.2 -> 0.4 MeV)	1.7040E-01	5.6802E-01
4	(0.4 -> 0.6 MeV)	2.0836E+00	4.1671E+00
5	(0.6 -> 0.8 MeV)	3.7455E-02	5.3507E-02
6	(0.8 -> 1.0 MeV)	4.9917E+00	5.5463E+00
7	(1.0 ->1.22 MeV)	1.0146E-01	9.1402E-02
8	(1.22 ->1.44 MeV)	6.0394E+00	4.5409E+00
9	(1.44 ->1.66 MeV)	4.5073E+01	2.9079E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3267E+00	1.0341E+00
12	(2.5 -> 3.0 MeV)	1.0976E+01	3.9914E+00
13	(3.0 -> 4.0 MeV)	8.6289E+01	2.4654E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4654E+01	3.9914E+00
1.0341E+00	1.8385E+03	3.3620E+01	9.1402E-02	5.5463E+00	5.3507E-02

Mn 56	7.7685E+04	2.3456E-12	3.1417E-08	4.1973E+00	5.8000E+00	1.5676E-10	1.4500E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.3672E+09	1.0361E-14	1.2902E-06	7.8030E-03	1.0980E+01	2.9675E-10	3.6236E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
As 76	5.4321E+04	9.5080E-14	1.2998E-08	7.3266E-02	3.9736E-01	1.0739E-11	6.3577E-07	1.097E+00 (d)	As 76
Br 79	1.7953E+15								
Br 80	4.3585E+02	3.6712E-14	5.5932E-11	9.3743E-03	2.8608E-01	7.7320E-12	8.8571E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	1.2865E+05	2.8153E-14	6.8282E-09	1.3984E-02	5.3043E-01	1.4336E-11	3.9291E-07	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239

here are 109 Nuclides.

Totals:	4.4129E+22	9.8682E-10	1.847787E+04	1.5065E+03	2.1404E+03	5.7848E-08	1.1047E-04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 39.97 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83448E+08
He	2.16870E+10

Na	1.09073E+19
Mg	5.02635E+08
Al	1.10676E+22
Si	1.88515E+11
P	3.21588E+04
S	9.35628E+20
Cl	4.43848E+09
Ar	5.29715E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52011E+07
As	1.13335E+16
Se	7.49812E+07
Br	3.54167E+15
Kr	3.39416E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50274E+06
In	3.12104E-07
Sn	3.34555E+05
Sb	1.16227E+15
Te	2.02835E+07
I	6.77949E-03
Xe	4.02564E+06
Cs	8.50418E+05
Ba	2.08115E+17
La	3.23595E+06
Ce	1.65525E-01
Pr	5.30241E-02
Nd	6.44324E+04
Pm	6.53749E+04
Sm	1.88252E+15
Eu	1.51598E+08
Gd	1.31598E+06
Lu	0.00000E+00
Hf	1.69683E-02
Ta	2.39977E+04
W	7.69706E+14
Re	2.43034E+06
Hg	1.95502E-01
Tl	6.92879E-01
Pb	4.78079E+15
Bi	2.05830E+03
Th	2.19580E-02
U	1.18888E+15
Np	2.87484E+04
Pu	3.32346E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	5.2349E-02	9.5179E-01
2	(0.1 -> 0.2 MeV)	1.7253E-02	1.1131E-01
3	(0.2 -> 0.4 MeV)	1.7040E-01	5.6802E-01
4	(0.4 -> 0.6 MeV)	2.0836E+00	4.1671E+00
5	(0.6 -> 0.8 MeV)	3.7455E-02	5.3507E-02
6	(0.8 -> 1.0 MeV)	4.9917E+00	5.5463E+00
7	(1.0 ->1.22 MeV)	1.0146E-01	9.1402E-02
8	(1.22 ->1.44 MeV)	6.0394E+00	4.5409E+00
9	(1.44 ->1.66 MeV)	4.5073E+01	2.9079E+01
10	(1.66 -> 2.0 MeV)	3.3645E+03	1.8385E+03
11	(2.0 -> 2.5 MeV)	2.3267E+00	1.0341E+00
12	(2.5 -> 3.0 MeV)	1.0976E+01	3.9914E+00
13	(3.0 -> 4.0 MeV)	8.6289E+01	2.4654E+01
14	(4.0 -> 5.0 MeV)	8.9586E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4654E+01	3.9914E+00
1.0341E+00	1.8385E+03	3.3620E+01	9.1402E-02	5.5463E+00	5.3507E-02

4.1671E+00 2.8401E-01 2.8401E-01 1.1131E-01 4.7590E-01 4.7590E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.7083E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.4007E+11	8.2951E-17	3.8890E-04	2.9361E-05	1.5786E-01	4.2664E-12	4.5755E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.6442E+07	1.0029E-14	2.0339E-07	0.0000E+00	8.1078E-01	2.1913E-11	6.1422E-07	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.0621E+09	8.0491E-15	1.0023E-06	6.0617E-03	8.5294E+00	2.3052E-10	2.8150E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148

Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
363.9 (d)		3.2335E-13	1.847787E+04	1.8840E-01	1.2239E+01	3.3078E-10	2.0964E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

Energy distribution of decay gamma-rays

Group	E range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.4348E-02	2.6087E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.3043E-01	1.3043E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83448E+08
He	2.16870E+10
Na	1.09073E+19
Mg	5.02936E+08
Al	1.10676E+22
Si	1.88515E+11
P	1.56133E+00
S	9.35628E+20
Cl	4.44234E+09
Ar	5.25049E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52097E+07
As	1.13335E+16
Se	7.50356E+07
Br	3.54167E+15
Kr	3.39513E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50416E+06

4.1671E+00 2.8401E-01 2.8401E-01 1.1131E-01 4.7590E-01 4.7590E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.7083E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.4007E+11	8.2951E-17	3.8890E-04	2.9361E-05	1.5786E-01	4.2664E-12	4.5755E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.6442E+07	1.0029E-14	2.0339E-07	0.0000E+00	8.1078E-01	2.1913E-11	6.1422E-07	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.0621E+09	8.0491E-15	1.0023E-06	6.0617E-03	8.5294E+00	2.3052E-10	2.8150E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148

Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
363.9 (d)		3.2335E-13	1.847787E+04	1.8840E-01	1.2239E+01	3.3078E-10	2.0964E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.4348E-02	2.6087E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.3043E-01	1.3043E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83448E+08
He	2.16870E+10
Na	1.09073E+19
Mg	5.02936E+08
Al	1.10676E+22
Si	1.88515E+11
P	1.56133E+00
S	9.35628E+20
Cl	4.44234E+09
Ar	5.25049E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52097E+07
As	1.13335E+16
Se	7.50356E+07
Br	3.54167E+15
Kr	3.39513E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50416E+06

4.1671E+00 2.8401E-01 2.8401E-01 1.1131E-01 4.7590E-01 4.7590E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.7083E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.4007E+11	8.2951E-17	3.8890E-04	2.9361E-05	1.5786E-01	4.2664E-12	4.5755E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.6442E+07	1.0029E-14	2.0339E-07	0.0000E+00	8.1078E-01	2.1913E-11	6.1422E-07	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.0621E+09	8.0491E-15	1.0023E-06	6.0617E-03	8.5294E+00	2.3052E-10	2.8150E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148

Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
363.9 (d)		3.2335E-13	1.847787E+04	1.8840E-01	1.2239E+01	3.3078E-10	2.0964E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.4348E-02	2.6087E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.3043E-01	1.3043E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83448E+08
He	2.16870E+10
Na	1.09073E+19
Mg	5.02936E+08
Al	1.10676E+22
Si	1.88515E+11
P	1.56133E+00
S	9.35628E+20
Cl	4.44234E+09
Ar	5.25049E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52097E+07
As	1.13335E+16
Se	7.50356E+07
Br	3.54167E+15
Kr	3.39513E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50416E+06

4.1671E+00 2.8401E-01 2.8401E-01 1.1131E-01 4.7590E-01 4.7590E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.7083E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.4007E+11	8.2951E-17	3.8890E-04	2.9361E-05	1.5786E-01	4.2664E-12	4.5755E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.6442E+07	1.0029E-14	2.0339E-07	0.0000E+00	8.1078E-01	2.1913E-11	6.1422E-07	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.0621E+09	8.0491E-15	1.0023E-06	6.0617E-03	8.5294E+00	2.3052E-10	2.8150E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148

Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
363.9 (d)		3.2335E-13	1.847787E+04	1.8840E-01	1.2239E+01	3.3078E-10	2.0964E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.4348E-02	2.6087E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.3043E-01	1.3043E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83448E+08
He	2.16870E+10
Na	1.09073E+19
Mg	5.02936E+08
Al	1.10676E+22
Si	1.88515E+11
P	1.56133E+00
S	9.35628E+20
Cl	4.44234E+09
Ar	5.25049E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52097E+07
As	1.13335E+16
Se	7.50356E+07
Br	3.54167E+15
Kr	3.39513E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50416E+06

4.1671E+00 2.8401E-01 2.8401E-01 1.1131E-01 4.7590E-01 4.7590E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.7083E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.4007E+11	8.2951E-17	3.8890E-04	2.9361E-05	1.5786E-01	4.2664E-12	4.5755E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	1.6442E+07	1.0029E-14	2.0339E-07	0.0000E+00	8.1078E-01	2.1913E-11	6.1422E-07	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	1.0621E+09	8.0491E-15	1.0023E-06	6.0617E-03	8.5294E+00	2.3052E-10	2.8150E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148

Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
363.9 (d)		3.2335E-13	1.847787E+04	1.8840E-01	1.2239E+01	3.3078E-10	2.0964E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.4348E-02	2.6087E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.3043E-01	1.3043E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 363.93 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83448E+08
He	2.16870E+10
Na	1.09073E+19
Mg	5.02936E+08
Al	1.10676E+22
Si	1.88515E+11
P	1.56133E+00
S	9.35628E+20
Cl	4.44234E+09
Ar	5.25049E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52097E+07
As	1.13335E+16
Se	7.50356E+07
Br	3.54167E+15
Kr	3.39513E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50416E+06

In	0.00000E+00
Sn	3.34855E+05
Sb	1.16227E+15
Te	2.03026E+07
I	6.78639E-03
Xe	4.02978E+06
Cs	8.76336E+05
Ba	2.08115E+17
La	3.23621E+06
Ce	1.65678E-01
Pr	5.30316E-02
Nd	6.69524E+04
Pm	6.36938E+04
Sm	1.88252E+15
Eu	1.51730E+08
Gd	1.34487E+06
Lu	0.00000E+00
Hf	1.69683E-02
Ta	2.40314E+04
W	7.69706E+14
Re	2.43225E+06
Hg	1.95428E-01
Tl	6.93719E-01
Pb	4.78079E+15
Bi	2.05868E+03
Th	2.56113E-02
U	1.18888E+15
Np	8.81417E-43
Pu	3.32632E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.766E-04	9.108E+02	2.140E+03	5.785E-02	1.105E-04	9.868E-10	1.847787E+04
363.9 (d)	4.710E-08	5.208E+00	1.224E+01	3.308E-04	2.096E-05	3.233E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete Sl :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.140E+03	3.766E-04	1.105E-04	9.868E-10
363.9 (d)	1.224E+01	4.710E-08	2.096E-05	3.233E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.108E+05	4.199E-10	2.462E-05	1.507E+03
363.9 (d)	5.208E+03	1.376E-13	1.408E-07	1.884E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.108E+02	3.766E-04	4.199E-10	2.757E+03
363.9 (d)	5.208E+00	4.710E-08	1.376E-13	4.157E-01

Elapsed Time.

Step	1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step	2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step	3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step	4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step	5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step	6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step	7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step	8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step	9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	

Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)		
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)		
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)		
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)		
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)		
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)		
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)		
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)		
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)		
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)		
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals :	2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)		
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals :	2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)		
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals :	2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)		
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals :	2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)		
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals :	2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)		
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals :	2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)		
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals :	2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)		
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals :	2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)		
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals :	2
	Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)		
Step 29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals :	2
	Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)		
Step 30 :	Activation of	4.29096E+06(s), i.e.	49.66 (d)	29.11 (y)	Intervals :	2
	Cold Pause of	2.72450E+07(s), i.e.	315.34 (d)	29.98 (y)		
Step 31 :	Activation of	2.37474E+06(s), i.e.	27.49 (d)	30.05 (y)	Intervals :	2
	Cold Pause of	2.91613E+07(s), i.e.	337.52 (d)	30.98 (y)		
Step 32 :	Activation of	1.67827E+06(s), i.e.	19.42 (d)	31.03 (y)	Intervals :	2
	Cold Pause of	2.98577E+07(s), i.e.	345.58 (d)	31.98 (y)		
Step 33 :	Activation of	1.58702E+06(s), i.e.	18.37 (d)	32.03 (y)	Intervals :	2
	Cold Pause of	2.99490E+07(s), i.e.	346.63 (d)	32.97 (y)		
Step 34 :	Activation of	1.45885E+06(s), i.e.	16.88 (d)	33.02 (y)	Intervals :	2
	Cold Pause of	3.00772E+07(s), i.e.	348.12 (d)	33.97 (y)		
Step 35 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	34.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	34.97 (y)		
Step 36 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	35.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	35.97 (y)		
Step 37 :	Activation of	1.80003E+06(s), i.e.	20.83 (d)	36.03 (y)	Intervals :	2
	Cold Pause of	2.97360E+07(s), i.e.	344.17 (d)	36.97 (y)		
Step 38 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	37.04 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	37.97 (y)		
Step 39 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	38.04 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	38.97 (y)		
Step 40 :	Activation of	7.76520E+04(s), i.e.	21.57 (h)	38.97 (y)	Intervals :	2
	Cold Pause of	3.14583E+07(s), i.e.	364.10 (d)	39.97 (y)		
Step 41 :	Activation of	9.27846E+04(s), i.e.	1.07 (d)	39.97 (y)	Intervals :	2
	Cold Pause of	3.14432E+07(s), i.e.	363.93 (d)	40.97 (y)		

In	0.00000E+00
Sn	3.34855E+05
Sb	1.16227E+15
Te	2.03026E+07
I	6.78639E-03
Xe	4.02978E+06
Cs	8.76336E+05
Ba	2.08115E+17
La	3.23621E+06
Ce	1.65678E-01
Pr	5.30316E-02
Nd	6.69524E+04
Pm	6.36938E+04
Sm	1.88252E+15
Eu	1.51730E+08
Gd	1.34487E+06
Lu	0.00000E+00
Hf	1.69683E-02
Ta	2.40314E+04
W	7.69706E+14
Re	2.43225E+06
Hg	1.95428E-01
Tl	6.93719E-01
Pb	4.78079E+15
Bi	2.05868E+03
Th	2.56113E-02
U	1.18888E+15
Np	8.81417E-43
Pu	3.32632E+07
Totals:	4.41291E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.766E-04	9.108E+02	2.140E+03	5.785E-02	1.105E-04	9.868E-10	1.847787E+04
363.9 (d)	4.710E-08	5.208E+00	1.224E+01	3.308E-04	2.096E-05	3.233E-13	1.847787E+04

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete Sl :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.140E+03	3.766E-04	1.105E-04	9.868E-10
363.9 (d)	1.224E+01	4.710E-08	2.096E-05	3.233E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.108E+05	4.199E-10	2.462E-05	1.507E+03
363.9 (d)	5.208E+03	1.376E-13	1.408E-07	1.884E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.108E+02	3.766E-04	4.199E-10	2.757E+03
363.9 (d)	5.208E+00	4.710E-08	1.376E-13	4.157E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	

Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)		
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)		
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)		
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)		
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)		
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)		
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)		
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)		
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)		
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)		
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals :	2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)		
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals :	2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)		
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals :	2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)		
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals :	2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)		
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals :	2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)		
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals :	2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)		
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals :	2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)		
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals :	2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)		
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals :	2
	Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)		
Step 29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals :	2
	Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)		
Step 30 :	Activation of	4.29096E+06(s), i.e.	49.66 (d)	29.11 (y)	Intervals :	2
	Cold Pause of	2.72450E+07(s), i.e.	315.34 (d)	29.98 (y)		
Step 31 :	Activation of	2.37474E+06(s), i.e.	27.49 (d)	30.05 (y)	Intervals :	2
	Cold Pause of	2.91613E+07(s), i.e.	337.52 (d)	30.98 (y)		
Step 32 :	Activation of	1.67827E+06(s), i.e.	19.42 (d)	31.03 (y)	Intervals :	2
	Cold Pause of	2.98577E+07(s), i.e.	345.58 (d)	31.98 (y)		
Step 33 :	Activation of	1.58702E+06(s), i.e.	18.37 (d)	32.03 (y)	Intervals :	2
	Cold Pause of	2.99490E+07(s), i.e.	346.63 (d)	32.97 (y)		
Step 34 :	Activation of	1.45885E+06(s), i.e.	16.88 (d)	33.02 (y)	Intervals :	2
	Cold Pause of	3.00772E+07(s), i.e.	348.12 (d)	33.97 (y)		
Step 35 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	34.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	34.97 (y)		
Step 36 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	35.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	35.97 (y)		
Step 37 :	Activation of	1.80003E+06(s), i.e.	20.83 (d)	36.03 (y)	Intervals :	2
	Cold Pause of	2.97360E+07(s), i.e.	344.17 (d)	36.97 (y)		
Step 38 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	37.04 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	37.97 (y)		
Step 39 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	38.04 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	38.97 (y)		
Step 40 :	Activation of	7.76520E+04(s), i.e.	21.57 (h)	38.97 (y)	Intervals :	2
	Cold Pause of	3.14583E+07(s), i.e.	364.10 (d)	39.97 (y)		
Step 41 :	Activation of	9.27846E+04(s), i.e.	1.07 (d)	39.97 (y)	Intervals :	2
	Cold Pause of	3.14432E+07(s), i.e.	363.93 (d)	40.97 (y)		

In	0.00000E+00
Sn	3.34855E+05
Sb	1.16227E+15
Te	2.03026E+07
I	6.78639E-03
Xe	4.02978E+06
Cs	8.76336E+05
Ba	2.08115E+17
La	3.23621E+06
Ce	1.65678E-01
Pr	5.30316E-02
Nd	6.69524E+04
Pm	6.36938E+04
Sm	1.88252E+15
Eu	1.51730E+08
Gd	1.34487E+06
Lu	0.00000E+00
Hf	1.69683E-02
Ta	2.40314E+04
W	7.69706E+14
Re	2.43225E+06
Hg	1.95428E-01
Tl	6.93719E-01
Pb	4.78079E+15
Bi	2.05868E+03
Th	2.56113E-02
U	1.18888E+15
Np	8.81417E-43
Pu	3.32632E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.766E-04	9.108E+02	2.140E+03	5.785E-02	1.105E-04	9.868E-10	1.847787E+04
363.9 (d)	4.710E-08	5.208E+00	1.224E+01	3.308E-04	2.096E-05	3.233E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.140E+03	3.766E-04	1.105E-04	9.868E-10
363.9 (d)	1.224E+01	4.710E-08	2.096E-05	3.233E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.108E+05	4.199E-10	2.462E-05	1.507E+03
363.9 (d)	5.208E+03	1.376E-13	1.408E-07	1.884E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.108E+02	3.766E-04	4.199E-10	2.757E+03
363.9 (d)	5.208E+00	4.710E-08	1.376E-13	4.157E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	

Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)		
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)		
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)		
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)		
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)		
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)		
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)		
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)		
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)		
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)		
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals :	2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)		
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals :	2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)		
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals :	2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)		
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals :	2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)		
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals :	2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)		
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals :	2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)		
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals :	2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)		
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals :	2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)		
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals :	2
	Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)		
Step 29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals :	2
	Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)		
Step 30 :	Activation of	4.29096E+06(s), i.e.	49.66 (d)	29.11 (y)	Intervals :	2
	Cold Pause of	2.72450E+07(s), i.e.	315.34 (d)	29.98 (y)		
Step 31 :	Activation of	2.37474E+06(s), i.e.	27.49 (d)	30.05 (y)	Intervals :	2
	Cold Pause of	2.91613E+07(s), i.e.	337.52 (d)	30.98 (y)		
Step 32 :	Activation of	1.67827E+06(s), i.e.	19.42 (d)	31.03 (y)	Intervals :	2
	Cold Pause of	2.98577E+07(s), i.e.	345.58 (d)	31.98 (y)		
Step 33 :	Activation of	1.58702E+06(s), i.e.	18.37 (d)	32.03 (y)	Intervals :	2
	Cold Pause of	2.99490E+07(s), i.e.	346.63 (d)	32.97 (y)		
Step 34 :	Activation of	1.45885E+06(s), i.e.	16.88 (d)	33.02 (y)	Intervals :	2
	Cold Pause of	3.00772E+07(s), i.e.	348.12 (d)	33.97 (y)		
Step 35 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	34.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	34.97 (y)		
Step 36 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	35.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	35.97 (y)		
Step 37 :	Activation of	1.80003E+06(s), i.e.	20.83 (d)	36.03 (y)	Intervals :	2
	Cold Pause of	2.97360E+07(s), i.e.	344.17 (d)	36.97 (y)		
Step 38 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	37.04 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	37.97 (y)		
Step 39 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	38.04 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	38.97 (y)		
Step 40 :	Activation of	7.76520E+04(s), i.e.	21.57 (h)	38.97 (y)	Intervals :	2
	Cold Pause of	3.14583E+07(s), i.e.	364.10 (d)	39.97 (y)		
Step 41 :	Activation of	9.27846E+04(s), i.e.	1.07 (d)	39.97 (y)	Intervals :	2
	Cold Pause of	3.14432E+07(s), i.e.	363.93 (d)	40.97 (y)		

In	0.00000E+00
Sn	3.34855E+05
Sb	1.16227E+15
Te	2.03026E+07
I	6.78639E-03
Xe	4.02978E+06
Cs	8.76336E+05
Ba	2.08115E+17
La	3.23621E+06
Ce	1.65678E-01
Pr	5.30316E-02
Nd	6.69524E+04
Pm	6.36938E+04
Sm	1.88252E+15
Eu	1.51730E+08
Gd	1.34487E+06
Lu	0.00000E+00
Hf	1.69683E-02
Ta	2.40314E+04
W	7.69706E+14
Re	2.43225E+06
Hg	1.95428E-01
Tl	6.93719E-01
Pb	4.78079E+15
Bi	2.05868E+03
Th	2.56113E-02
U	1.18888E+15
Np	8.81417E-43
Pu	3.32632E+07
Totals:	4.41291E+22

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.766E-04	9.108E+02	2.140E+03	5.785E-02	1.105E-04	9.868E-10	1.847787E+04
363.9 (d)	4.710E-08	5.208E+00	1.224E+01	3.308E-04	2.096E-05	3.233E-13	1.847787E+04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.140E+03	3.766E-04	1.105E-04	9.868E-10
363.9 (d)	1.224E+01	4.710E-08	2.096E-05	3.233E-13

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.108E+05	4.199E-10	2.462E-05	1.507E+03
363.9 (d)	5.208E+03	1.376E-13	1.408E-07	1.884E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.108E+02	3.766E-04	4.199E-10	2.757E+03
363.9 (d)	5.208E+00	4.710E-08	1.376E-13	4.157E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	

Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)		
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)		
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)		
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)		
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)		
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)		
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)		
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)		
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)		
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)		
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals :	2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)		
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals :	2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)		
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals :	2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)		
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals :	2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)		
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals :	2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)		
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals :	2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)		
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals :	2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)		
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals :	2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)		
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals :	2
	Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)		
Step 29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals :	2
	Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)		
Step 30 :	Activation of	4.29096E+06(s), i.e.	49.66 (d)	29.11 (y)	Intervals :	2
	Cold Pause of	2.72450E+07(s), i.e.	315.34 (d)	29.98 (y)		
Step 31 :	Activation of	2.37474E+06(s), i.e.	27.49 (d)	30.05 (y)	Intervals :	2
	Cold Pause of	2.91613E+07(s), i.e.	337.52 (d)	30.98 (y)		
Step 32 :	Activation of	1.67827E+06(s), i.e.	19.42 (d)	31.03 (y)	Intervals :	2
	Cold Pause of	2.98577E+07(s), i.e.	345.58 (d)	31.98 (y)		
Step 33 :	Activation of	1.58702E+06(s), i.e.	18.37 (d)	32.03 (y)	Intervals :	2
	Cold Pause of	2.99490E+07(s), i.e.	346.63 (d)	32.97 (y)		
Step 34 :	Activation of	1.45885E+06(s), i.e.	16.88 (d)	33.02 (y)	Intervals :	2
	Cold Pause of	3.00772E+07(s), i.e.	348.12 (d)	33.97 (y)		
Step 35 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	34.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	34.97 (y)		
Step 36 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	35.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	35.97 (y)		
Step 37 :	Activation of	1.80003E+06(s), i.e.	20.83 (d)	36.03 (y)	Intervals :	2
	Cold Pause of	2.97360E+07(s), i.e.	344.17 (d)	36.97 (y)		
Step 38 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	37.04 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	37.97 (y)		
Step 39 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	38.04 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	38.97 (y)		
Step 40 :	Activation of	7.76520E+04(s), i.e.	21.57 (h)	38.97 (y)	Intervals :	2
	Cold Pause of	3.14583E+07(s), i.e.	364.10 (d)	39.97 (y)		
Step 41 :	Activation of	9.27846E+04(s), i.e.	1.07 (d)	39.97 (y)	Intervals :	2
	Cold Pause of	3.14432E+07(s), i.e.	363.93 (d)	40.97 (y)		

In	0.00000E+00
Sn	3.34855E+05
Sb	1.16227E+15
Te	2.03026E+07
I	6.78639E-03
Xe	4.02978E+06
Cs	8.76336E+05
Ba	2.08115E+17
La	3.23621E+06
Ce	1.65678E-01
Pr	5.30316E-02
Nd	6.69524E+04
Pm	6.36938E+04
Sm	1.88252E+15
Eu	1.51730E+08
Gd	1.34487E+06
Lu	0.00000E+00
Hf	1.69683E-02
Ta	2.40314E+04
W	7.69706E+14
Re	2.43225E+06
Hg	1.95428E-01
Tl	6.93719E-01
Pb	4.78079E+15
Bi	2.05868E+03
Th	2.56113E-02
U	1.18888E+15
Np	8.81417E-43
Pu	3.32632E+07
Totals:	4.41291E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.766E-04	9.108E+02	2.140E+03	5.785E-02	1.105E-04	9.868E-10	1.847787E+04
363.9 (d)	4.710E-08	5.208E+00	1.224E+01	3.308E-04	2.096E-05	3.233E-13	1.847787E+04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.140E+03	3.766E-04	1.105E-04	9.868E-10
363.9 (d)	1.224E+01	4.710E-08	2.096E-05	3.233E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	9.108E+05	4.199E-10	2.462E-05	1.507E+03
363.9 (d)	5.208E+03	1.376E-13	1.408E-07	1.884E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	9.108E+02	3.766E-04	4.199E-10	2.757E+03
363.9 (d)	5.208E+00	4.710E-08	1.376E-13	4.157E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	

Step	10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)		
Step	11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)		
Step	12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)		
Step	13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)		
Step	14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)		
Step	15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)		
Step	16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)		
Step	17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)		
Step	18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)		
Step	19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)		
Step	20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals :	2
		Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)		
Step	21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals :	2
		Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)		
Step	22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals :	2
		Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)		
Step	23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals :	2
		Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)		
Step	24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals :	2
		Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)		
Step	25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals :	2
		Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)		
Step	26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals :	2
		Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)		
Step	27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals :	2
		Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)		
Step	28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals :	2
		Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)		
Step	29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals :	2
		Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)		
Step	30 :	Activation of	4.29096E+06(s), i.e.	49.66 (d)	29.11 (y)	Intervals :	2
		Cold Pause of	2.72450E+07(s), i.e.	315.34 (d)	29.98 (y)		
Step	31 :	Activation of	2.37474E+06(s), i.e.	27.49 (d)	30.05 (y)	Intervals :	2
		Cold Pause of	2.91613E+07(s), i.e.	337.52 (d)	30.98 (y)		
Step	32 :	Activation of	1.67827E+06(s), i.e.	19.42 (d)	31.03 (y)	Intervals :	2
		Cold Pause of	2.98577E+07(s), i.e.	345.58 (d)	31.98 (y)		
Step	33 :	Activation of	1.58702E+06(s), i.e.	18.37 (d)	32.03 (y)	Intervals :	2
		Cold Pause of	2.99490E+07(s), i.e.	346.63 (d)	32.97 (y)		
Step	34 :	Activation of	1.45885E+06(s), i.e.	16.88 (d)	33.02 (y)	Intervals :	2
		Cold Pause of	3.00772E+07(s), i.e.	348.12 (d)	33.97 (y)		
Step	35 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	34.05 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	34.97 (y)		
Step	36 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	35.05 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	35.97 (y)		
Step	37 :	Activation of	1.80003E+06(s), i.e.	20.83 (d)	36.03 (y)	Intervals :	2
		Cold Pause of	2.97360E+07(s), i.e.	344.17 (d)	36.97 (y)		
Step	38 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	37.04 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	37.97 (y)		
Step	39 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	38.04 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	38.97 (y)		
Step	40 :	Activation of	7.76520E+04(s), i.e.	21.57 (h)	38.97 (y)	Intervals :	2
		Cold Pause of	3.14583E+07(s), i.e.	364.10 (d)	39.97 (y)		
Step	41 :	Activation of	9.27846E+04(s), i.e.	1.07 (d)	39.97 (y)	Intervals :	2
		Cold Pause of	3.14432E+07(s), i.e.	363.93 (d)	40.97 (y)		

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        Step   42 : Activation of  3.93660E+04(s), i.e.      10.94 (h)     40.97 (y)        Intervals :  2

 Cooling Times (s)  :

   3.1497E+07

    364.5 (d)

 AJBRF Reactor


 Step :   1

 Elapsed Time   :      26.35 (d)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6:0290E-08   1.6428E-04
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :     365.00 (d)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


 Step :   2

 Elapsed Time   :       1.07 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :       2.00 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


 Step :   3

 Elapsed Time   :       2.07 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :       3.00 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05


 Step :   4

 Elapsed Time   :       3.07 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :       4.00 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05


 Step :   5

 Elapsed Time   :       4.07 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :       5.00 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05


 Step :   6

 Elapsed Time   :       5.07 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :       6.00 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05


 Step :   7

 Elapsed Time   :       6.07 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
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Step   42 : Activation of  3.93660E+04(s), i.e.      10.94 (h)     40.97 (y)        Intervals :  2

Cooling Times (s)  :

  3.1497E+07

   364.5 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
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Step   42 : Activation of  3.93660E+04(s), i.e.      10.94 (h)     40.97 (y)        Intervals :  2

Cooling Times (s)  :

  3.1497E+07

   364.5 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05


Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05


Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05


Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Step   42 : Activation of  3.93660E+04(s), i.e.      10.94 (h)     40.97 (y)        Intervals :  2

Cooling Times (s)  :

   3.1497E+07

    364.5 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :      26.35 (d)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     365.00 (d)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :   2

Elapsed Time   :       1.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       2.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :       2.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       3.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :       3.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       4.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :       4.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       5.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :       5.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       6.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :       6.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :       7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :       8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :       9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :      10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :      11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :      12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :      13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Step   42 : Activation of  3.93660E+04(s), i.e.      10.94 (h)     40.97 (y)        Intervals :  2

Cooling Times (s)  :

  3.1497E+07

   364.5 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05

Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05
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Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
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Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05
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Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
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Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05
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Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
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Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05
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Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
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Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05
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Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
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            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5178E+03   2.2810E+03   6.1650E-08   1.9353E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   5.0758E-13 1.847787E+04   1.9439E-01   3.4894E+01   9.4308E-10   3.4535E-05

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0022E-09 1.847787E+04   1.5166E+03   2.2389E+03   6.0510E-08   1.6528E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.0918E-13 1.847787E+04   1.9308E-01   2.5239E+01   6.8214E-10   2.8007E-05

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5165E+03   2.2332E+03   6.0358E-08   1.6201E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   3.9923E-13 1.847787E+04   1.9213E-01   2.3210E+01   6.2730E-10   2.7037E-05

Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5172E+03   2.2503E+03   6.0819E-08   1.7326E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   4.3429E-13 1.847787E+04   1.9223E-01   2.6170E+01   7.0730E-10   2.9221E-05

Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2530E+03   6.0892E-08   1.7524E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Elapsed Time   :     35.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4177E-13 1.847787E+04   1.9230E-01   2.6873E+01   7.2629E-10   2.9708E-05

Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5168E+03   2.2428E+03   6.0617E-08   1.6875E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2115E-13 1.847787E+04   1.9188E-01   2.4655E+01   6.6635E-10   2.8283E-05

Step :  38

Elapsed Time   :     37.04 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0854E-08   1.7438E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     37.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3873E-13 1.847787E+04   1.9203E-01   2.6277E+01   7.1020E-10   2.9419E-05

Step :  39

Elapsed Time   :     38.04 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2531E+03   6.0894E-08   1.7541E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     38.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4256E-13 1.847787E+04   1.9215E-01   2.6744E+01   7.2280E-10   2.9699E-05

Step :  40

Elapsed Time   :     38.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   9.8281E-10 1.847787E+04   1.5034E+03   2.1332E+03   5.7654E-08   1.1130E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     39.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.4491E-13 1.847787E+04   1.9003E-01   1.6098E+01   4.3509E-10   2.2908E-05

Step :  41

Elapsed Time   :     39.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   9.8650E-10 1.847787E+04   1.5057E+03   2.1362E+03   5.7734E-08   1.1047E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     40.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.2335E-13 1.847787E+04   1.8840E-01   1.2239E+01   3.3078E-10   2.0964E-05

Step :  42
    AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time   :     40.97 (y)          Cooling Time 0.

Nuclide    N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Na 23     1.0907E+19
Na 24     1.7192E+05   1.6552E-12   1.2881E-07   3.8772E+00   2.2092E+00   5.9708E-11   9.4816E-07   1.498E+01 (h)   Na 24
Na 24m1   1.2240E-01   3.2548E-13   9.4863E-15   8.3994E-01   4.1997E+00   1.1351E-10   7.5534E-13   2.020E-02 (s)   Na 24m1
Al 27     1.1068E+22
Al 28     3.6660E+05   9.1443E-10   1.7739E-07   1.4337E+03   1.8898E+03   5.1076E-08   9.2638E-06   2.241E+00 (m)   Al 28
Si 28     1.7091E+11
 S 32     8.8903E+20
 S 33     7.0172E+18
 S 34     3.9390E+19
 S 36     1.8713E+17
Ar 37     1.4486E+06   1.4237E-16   6.2169E-10   4.5666E-05   3.3173E-01   8.9658E-12   2.7877E-08   3.503E+01 (d)   Ar 37
 K 39     1.2658E+21
 K 40     1.5880E+17   2.9639E-13   1.7272E+04   1.8228E-01   2.7250E+00   7.3649E-11   1.6926E-05   1.280E+03(My)   K 40
 K 41     9.1347E+19
 K 42     5.9693E+06   2.5496E-11   1.6386E-06   1.1714E+01   9.2882E+01   2.5103E-09   3.9863E-05   1.237E+01 (h)   K 42
Ca 40     2.7445E+22
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Ca 41	7.4039E+11	8.2988E-17	3.8906E-04	2.9374E-05	1.5792E-01	4.2682E-12	4.5775E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	2.8930E+07	1.7646E-14	3.5786E-07	0.0000E+00	1.4265E+00	3.8555E-11	1.0807E-06	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 49	1.5024E+05	3.9800E-12	1.9703E-08	1.2915E-02	3.0349E+01	8.2025E-10	2.4877E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11(My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	7.3647E+04	2.2237E-12	2.9784E-08	3.9791E+00	5.4984E+00	1.4861E-10	1.3746E-06	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	1.0706E+09	8.1136E-15	1.0103E-06	6.1102E-03	8.5977E+00	2.3237E-10	2.8375E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0292E-03	6.8829E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Ni 61	4.9463E+14								
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
Br 79	1.7953E+15								
Br 80	4.1928E+02	3.5317E-14	5.3806E-11	9.0180E-03	2.7521E-01	7.4381E-12	8.5204E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04(My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								
Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm153	6.0634E+04	1.3269E-14	3.2182E-09	6.5909E-03	2.4999E-01	6.7566E-12	1.8518E-07	1.946E+00 (d)	Sm153
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2

U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02 (My)	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03 (My)	U238
U239	7.4826E+02	2.7227E-14	5.5318E-11	8.0822E-03	3.6829E-01	9.9539E-12	1.0316E-08	2.347E+01 (m)	U239

here are 108 Nuclides.

Totals: 4.4129E+22 9.6828E-10 1.847787E+04 1.4955E+03 2.0704E+03 5.5958E-08 7.9575E-05

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 40.97 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83702E+08
He	2.16964E+10
Na	1.09073E+19
Mg	5.02983E+08
Al	1.10676E+22
Si	1.88599E+11
P	1.37603E+04
S	9.35628E+20
Cl	4.44264E+09
Ar	5.26734E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52156E+07
As	1.13335E+16
Se	7.50406E+07
Br	3.54167E+15
Kr	3.39607E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50422E+06
In	3.12104E-07
Sn	3.34863E+05
Sb	1.16227E+15
Te	2.03029E+07
I	6.78640E-03
Xe	4.02978E+06
Cs	8.76391E+05
Ba	2.08115E+17
La	3.23740E+06
Ce	1.65681E-01
Pr	5.30475E-02
Nd	6.69555E+04
Pm	6.36914E+04
Sm	1.88252E+15
Eu	1.51736E+08
Gd	1.34491E+06
Lu	0.00000E+00
Hf	1.69757E-02
Ta	2.40314E+04
W	7.69706E+14
Re	2.43237E+06
Hg	1.95547E-01
Tl	6.93845E-01
Pb	4.78079E+15
Bi	2.05887E+03
Th	2.56159E-02
U	1.18888E+15
Np	1.29091E+04
Pu	3.32640E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	3.9490E-02	7.1800E-01
2	(0.1 -> 0.2 MeV)	9.0238E-03	5.8218E-02
3	(0.2 -> 0.4 MeV)	1.0221E-01	3.4071E-01
4	(0.4 -> 0.6 MeV)	1.9804E+00	3.9608E+00
5	(0.6 -> 0.8 MeV)	1.7582E-02	2.5117E-02
6	(0.8 -> 1.0 MeV)	4.7078E+00	5.2309E+00
7	(1.0 ->1.22 MeV)	6.0867E-02	5.4835E-02
8	(1.22 ->1.44 MeV)	3.7471E+00	2.8173E+00
9	(1.44 ->1.66 MeV)	2.7195E+01	1.7545E+01
10	(1.66 -> 2.0 MeV)	3.3642E+03	1.8384E+03
11	(2.0 -> 2.5 MeV)	2.1949E+00	9.7552E-01
12	(2.5 -> 3.0 MeV)	6.3731E+00	2.3175E+00
13	(3.0 -> 4.0 MeV)	8.6284E+01	2.4653E+01
14	(4.0 -> 5.0 MeV)	8.9585E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4653E+01	2.3175E+00
9.7552E-01	1.8384E+03	2.0363E+01	5.4835E-02	5.2309E+00	2.5117E-02
3.9608E+00	1.7035E-01	1.7035E-01	5.8218E-02	3.5900E-01	3.5900E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 364.54 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.7091E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.4038E+11	8.2987E-17	3.8906E-04	2.9374E-05	1.5792E-01	4.2682E-12	4.5775E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 45	6.1213E+06	3.7338E-15	7.5720E-08	0.0000E+00	3.0184E-01	8.1579E-12	2.2867E-07	Ca 45
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							
Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	8.3130E+08	6.3002E-15	7.8449E-07	4.7446E-03	6.6762E+00	1.8044E-10	2.2034E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Ga 71	4.0485E+15							
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							

Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
364.5 (d)		3.1530E-13	1.847787E+04	1.8708E-01	9.8767E+00	2.6694E-10	1.9966E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 364.54 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1268E-02	2.0486E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10
12	(2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13	(3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14	(4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	1.0243E-01	1.0243E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 364.54 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83702E+08
He	2.16964E+10
Na	1.09073E+19
Mg	5.03155E+08
Al	1.10676E+22
Si	1.88599E+11
P	6.56895E-01
S	9.35628E+20
Cl	4.44429E+09
Ar	5.24008E+08
K	1.35727E+21
Ca	2.83107E+22

Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52207E+07
As	1.13335E+16
Se	7.50683E+07
Br	3.54167E+15
Kr	3.39661E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50502E+06
In	0.00000E+00
Sn	3.35001E+05
Sb	1.16227E+15
Te	2.03115E+07
I	6.78935E-03
Xe	4.03153E+06
Cs	9.00837E+05
Ba	2.08115E+17
La	3.23765E+06
Ce	1.65750E-01
Pr	5.30547E-02
Nd	6.94063E+04
Pm	6.16702E+04
Sm	1.88252E+15
Eu	1.51803E+08
Gd	1.37009E+06
Lu	0.00000E+00
Hf	1.69757E-02
Ta	2.40448E+04
W	7.69706E+14
Re	2.43332E+06
Hg	1.95515E-01
Tl	6.94654E-01
Pb	4.78079E+15
Bi	2.05922E+03
Th	2.92770E-02
U	1.18888E+15
Np	3.39114E-43
Pu	3.32767E+07
Totals:	4.41291E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.739E-04	8.810E+02	2.070E+03	5.596E-02	7.958E-05	9.683E-10	1.847787E+04
364.5 (d)	4.677E-08	4.203E+00	9.877E+00	2.669E-04	1.997E-05	3.153E-13	1.847787E+04

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.070E+03	3.739E-04	7.958E-05	9.683E-10
364.5 (d)	9.877E+00	4.677E-08	1.997E-05	3.153E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	8.810E+05	4.120E-10	2.381E-05	1.495E+03
364.5 (d)	4.203E+03	1.342E-13	1.136E-07	1.871E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital

Time	Bq/g	Sv/h	W/g	Cl Index
zero	8.810E+02	3.739E-04	4.120E-10	2.746E+03
364.5 (d)	4.203E+00	4.677E-08	1.342E-13	4.130E-01

				Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)		
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)		

Step	3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step	4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step	5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step	6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step	7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step	8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step	9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step	10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step	11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step	12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step	13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step	14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step	15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step	16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step	17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step	18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step	19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step	20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
		Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step	21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
		Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step	22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
		Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	
Step	23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals : 2
		Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)	
Step	24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals : 2
		Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)	
Step	25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals : 2
		Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)	
Step	26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals : 2
		Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)	
Step	27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals : 2
		Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)	
Step	28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals : 2
		Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)	
Step	29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals : 2
		Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)	
Step	30 :	Activation of	4.29096E+06(s), i.e.	49.66 (d)	29.11 (y)	Intervals : 2
		Cold Pause of	2.72450E+07(s), i.e.	315.34 (d)	29.98 (y)	
Step	31 :	Activation of	2.37474E+06(s), i.e.	27.49 (d)	30.05 (y)	Intervals : 2
		Cold Pause of	2.91613E+07(s), i.e.	337.52 (d)	30.98 (y)	
Step	32 :	Activation of	1.67827E+06(s), i.e.	19.42 (d)	31.03 (y)	Intervals : 2
		Cold Pause of	2.98577E+07(s), i.e.	345.58 (d)	31.98 (y)	
Step	33 :	Activation of	1.58702E+06(s), i.e.	18.37 (d)	32.03 (y)	Intervals : 2
		Cold Pause of	2.99490E+07(s), i.e.	346.63 (d)	32.97 (y)	
Step	34 :	Activation of	1.45885E+06(s), i.e.	16.88 (d)	33.02 (y)	Intervals : 2

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                Cold Pause of  3.00772E+07(s), i.e.     348.12 (d)     33.97 (y)

Step   35 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     34.05 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     34.97 (y)

Step   36 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     35.05 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     35.97 (y)

Step   37 : Activation of  1.80003E+06(s), i.e.      20.83 (d)     36.03 (y)        Intervals :  2
            Cold Pause of  2.97360E+07(s), i.e.     344.17 (d)     36.97 (y)

Step   38 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     37.04 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     37.97 (y)

Step   39 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     38.04 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     38.97 (y)

Step   40 : Activation of  7.76520E+04(s), i.e.      21.57 (h)     38.97 (y)        Intervals :  2
            Cold Pause of  3.14583E+07(s), i.e.     364.10 (d)     39.97 (y)

Step   41 : Activation of  9.27846E+04(s), i.e.       1.07 (d)     39.97 (y)        Intervals :  2
            Cold Pause of  3.14432E+07(s), i.e.     363.93 (d)     40.97 (y)

Step   42 : Activation of  3.93660E+04(s), i.e.      10.94 (h)     40.97 (y)        Intervals :  2
            Cold Pause of  3.14966E+07(s), i.e.     364.54 (d)     41.97 (y)

Step   43 : Activation of  1.13220E+04(s), i.e.       3.14 (h)     41.97 (y)        Intervals :  2

Cooling Times (s)  :

  3.1525E+07

   364.9 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5171E+03   2.2307E+03   6.0290E-08   1.6428E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0702E-13 1.847787E+04   1.8460E-01   1.3944E+01   3.7687E-10   2.4601E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2411E+03   6.0571E-08   1.7080E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3024E-13 1.847787E+04   1.8637E-01   1.8127E+01   4.8992E-10   2.6703E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2451E+03   6.0678E-08   1.7275E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3648E-13 1.847787E+04   1.8775E-01   2.0433E+01   5.5225E-10   2.7616E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2473E+03   6.0738E-08   1.7362E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3884E-13 1.847787E+04   1.8882E-01   2.2017E+01   5.9504E-10   2.8170E-05


Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2489E+03   6.0780E-08   1.7416E-04
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4014E-13 1.847787E+04   1.8965E-01   2.3204E+01   6.2714E-10   2.8569E-05

Step :   6

Elapsed Time    :       5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2500E+03   6.0812E-08   1.7455E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4104E-13 1.847787E+04   1.9029E-01   2.4118E+01   6.5184E-10   2.8872E-05

Step :   7

Elapsed Time    :       6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2509E+03   6.0836E-08   1.7485E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4171E-13 1.847787E+04   1.9080E-01   2.4826E+01   6.7098E-10   2.9106E-05

Step :   8

Elapsed Time    :       7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0855E-08   1.7508E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4223E-13 1.847787E+04   1.9118E-01   2.5377E+01   6.8586E-10   2.9287E-05

Step :   9

Elapsed Time    :       8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2522E+03   6.0869E-08   1.7526E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4263E-13 1.847787E+04   1.9149E-01   2.5805E+01   6.9742E-10   2.9428E-05

Step :  10

Elapsed Time    :       9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2526E+03   6.0881E-08   1.7540E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :       9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4295E-13 1.847787E+04   1.9172E-01   2.6138E+01   7.0643E-10   2.9538E-05

Step :  11

Elapsed Time    :      10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2529E+03   6.0889E-08   1.7550E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :      10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4319E-13 1.847787E+04   1.9190E-01   2.6397E+01   7.1344E-10   2.9623E-05

Step :  12

Elapsed Time    :      11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2532E+03   6.0896E-08   1.7559E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :      11.99 (y)
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            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4338E-13 1.847787E+04   1.9204E-01   2.6600E+01   7.1891E-10   2.9690E-05

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2534E+03   6.0902E-08   1.7565E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4353E-13 1.847787E+04   1.9215E-01   2.6757E+01   7.2318E-10   2.9742E-05

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2535E+03   6.0906E-08   1.7570E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4364E-13 1.847787E+04   1.9224E-01   2.6881E+01   7.2651E-10   2.9783E-05

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2536E+03   6.0909E-08   1.7574E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4373E-13 1.847787E+04   1.9231E-01   2.6978E+01   7.2913E-10   2.9814E-05

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2537E+03   6.0912E-08   1.7578E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4380E-13 1.847787E+04   1.9236E-01   2.7054E+01   7.3118E-10   2.9839E-05

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2538E+03   6.0914E-08   1.7580E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4386E-13 1.847787E+04   1.9240E-01   2.7114E+01   7.3280E-10   2.9859E-05

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0915E-08   1.7582E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4390E-13 1.847787E+04   1.9243E-01   2.7161E+01   7.3408E-10   2.9874E-05

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2539E+03   6.0917E-08   1.7583E-04
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4393E-13 1.847787E+04   1.9246E-01   2.7199E+01   7.3510E-10   2.9887E-05
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Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0031E-09 1.847787E+04   1.5179E+03   2.2757E+03   6.1506E-08   1.8996E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   4.9399E-13 1.847787E+04   1.9353E-01   3.2642E+01   8.8220E-10   3.3364E-05

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0029E-09 1.847787E+04   1.5176E+03   2.2707E+03   6.1371E-08   1.8661E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   4.8162E-13 1.847787E+04   1.9386E-01   3.2083E+01   8.6712E-10   3.2736E-05

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0026E-09 1.847787E+04   1.5171E+03   2.2555E+03   6.0960E-08   1.7656E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   4.4663E-13 1.847787E+04   1.9343E-01   2.8697E+01   7.7558E-10   3.0429E-05

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0025E-09 1.847787E+04   1.5170E+03   2.2520E+03   6.0865E-08   1.7418E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   4.3808E-13 1.847787E+04   1.9308E-01   2.7548E+01   7.4455E-10   2.9770E-05

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0021E-09 1.847787E+04   1.5164E+03   2.2335E+03   6.0365E-08   1.6247E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   4.0177E-13 1.847787E+04   1.9205E-01   2.3284E+01   6.2930E-10   2.7155E-05

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0016E-09 1.847787E+04   1.5157E+03   2.2114E+03   5.9768E-08   1.4859E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   3.6259E-13 1.847787E+04   1.9057E-01   1.8182E+01   4.9141E-10   2.4185E-05

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2479E+03   6.0754E-08   1.7210E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    4.4129E+22   4.3023E-13 1.847787E+04   1.9111E-01   2.4364E+01   6.5850E-10   2.8538E-05

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5173E+03   2.2551E+03   6.0948E-08   1.7705E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4830E-13 1.847787E+04   1.9161E-01   2.6475E+01   7.1553E-10   2.9836E-05

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0034E-09 1.847787E+04   1.5184E+03   2.2921E+03   6.1949E-08   2.0103E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.3858E-13 1.847787E+04   1.9377E-01   3.6582E+01   9.8870E-10   3.6193E-05

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0031E-09 1.847787E+04   1.5178E+03   2.2810E+03   6.1650E-08   1.9353E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.0758E-13 1.847787E+04   1.9439E-01   3.4894E+01   9.4308E-10   3.4535E-05

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0035E-09 1.847787E+04   1.5184E+03   2.3015E+03   6.2204E-08   2.0636E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   5.5875E-13 1.847787E+04   1.9604E-01   4.1174E+01   1.1128E-09   3.8300E-05

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0027E-09 1.847787E+04   1.5172E+03   2.2691E+03   6.1327E-08   1.8495E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.7554E-13 1.847787E+04   1.9536E-01   3.3565E+01   9.0717E-10   3.2944E-05

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5167E+03   2.2464E+03   6.0714E-08   1.7001E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2497E-13 1.847787E+04   1.9413E-01   2.7876E+01   7.5341E-10   2.9375E-05

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0022E-09 1.847787E+04   1.5166E+03   2.2389E+03   6.0510E-08   1.6528E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.0918E-13 1.847787E+04   1.9308E-01   2.5239E+01   6.8214E-10   2.8007E-05

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0021E-09 1.847787E+04   1.5165E+03   2.2332E+03   6.0358E-08   1.6201E-04
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Elapsed Time   :     33.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.9923E-13 1.847787E+04   1.9213E-01   2.3210E+01   6.2730E-10   2.7037E-05

Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0025E-09 1.847787E+04   1.5172E+03   2.2503E+03   6.0819E-08   1.7326E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3429E-13 1.847787E+04   1.9223E-01   2.6170E+01   7.0730E-10   2.9221E-05

Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2530E+03   6.0892E-08   1.7524E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4177E-13 1.847787E+04   1.9230E-01   2.6873E+01   7.2629E-10   2.9708E-05

Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0023E-09 1.847787E+04   1.5168E+03   2.2428E+03   6.0617E-08   1.6875E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.2115E-13 1.847787E+04   1.9188E-01   2.4655E+01   6.6635E-10   2.8283E-05

Step :  38

Elapsed Time   :     37.04 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2516E+03   6.0854E-08   1.7438E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     37.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.3873E-13 1.847787E+04   1.9203E-01   2.6277E+01   7.1020E-10   2.9419E-05

Step :  39

Elapsed Time   :     38.04 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   1.0026E-09 1.847787E+04   1.5172E+03   2.2531E+03   6.0894E-08   1.7541E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     38.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   4.4256E-13 1.847787E+04   1.9215E-01   2.6744E+01   7.2280E-10   2.9699E-05

Step :  40

Elapsed Time   :     38.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   9.8281E-10 1.847787E+04   1.5034E+03   2.1332E+03   5.7654E-08   1.1130E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     39.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.4491E-13 1.847787E+04   1.9003E-01   1.6098E+01   4.3509E-10   2.2908E-05

Step :  41

Elapsed Time   :     39.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   9.8650E-10 1.847787E+04   1.5057E+03   2.1362E+03   5.7734E-08   1.1047E-04
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     40.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   4.4129E+22   3.2335E-13 1.847787E+04   1.8840E-01   1.2239E+01   3.3078E-10   2.0964E-05
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Step : 42

Elapsed Time : 40.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	9.6795E-10	1.847787E+04	1.4946E+03	2.0662E+03	5.5844E-08	7.9575E-05

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 41.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	4.4129E+22	3.1530E-13	1.847787E+04	1.8708E-01	9.8767E+00	2.6694E-10	1.9966E-05

Step : 43
AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 41.97 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Na 23	1.0907E+19								
Na 24	5.8634E+04	5.6449E-13	4.3929E-08	1.3223E+00	7.5345E-01	2.0363E-11	3.2337E-07	1.498E+01 (h)	Na 24
Na 24m1	1.2240E-01	3.2548E-13	9.4863E-15	8.3994E-01	4.1997E+00	1.1351E-10	7.5534E-13	2.020E-02 (s)	Na 24m1
Al 27	1.1068E+22								
Al 28	3.6660E+05	9.1443E-10	1.7739E-07	1.4337E+03	1.8898E+03	5.1076E-08	9.2638E-06	2.241E+00 (m)	Al 28
Si 28	1.7093E+11								
S 32	8.8903E+20								
S 33	7.0172E+18								
S 34	3.9390E+19								
S 36	1.8713E+17								
K 39	1.2658E+21								
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	1.280E+03 (My)	K 40
K 41	9.1347E+19								
K 42	2.1051E+06	8.9914E-12	5.7785E-07	4.1311E+00	3.2755E+01	8.8528E-10	1.4058E-05	1.237E+01 (h)	K 42
Ca 40	2.7445E+22								
Ca 41	7.4048E+11	8.2997E-17	3.8911E-04	2.9377E-05	1.5794E-01	4.2687E-12	4.5781E-08	1.030E+05 (y)	Ca 41
Ca 42	1.8317E+20								
Ca 43	3.8219E+19								
Ca 44	5.9056E+20								
Ca 45	9.7210E+06	5.9295E-15	1.2025E-07	0.0000E+00	4.7934E-01	1.2955E-11	3.6314E-07	1.627E+02 (d)	Ca 45
Ca 46	1.1324E+18								
Ca 48	5.2941E+19								
Ca 49	2.2915E+04	1.9634E-11	1.4818E-08	4.0919E+01	3.0362E+01	8.2060E-10	3.9482E-06	8.719E+00 (m)	Ca 49
Sc 45	1.2591E+16								
Sc 49	1.3229E+05	3.5045E-12	1.7349E-08	1.1372E-02	2.6724E+01	7.2226E-10	2.1905E-06	5.719E+01 (m)	Sc 49
Ti 46	2.5495E+17								
Ti 47	2.2992E+17								
Ti 48	2.2782E+18								
Ti 49	1.6719E+17								
Ti 50	1.6008E+17								
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	1.489E+11 (My)	V 50
V 51	8.8661E+16								
V 52	9.2658E+01	1.1506E-13	3.7298E-11	1.7618E-01	2.8585E-01	7.7256E-12	4.0035E-09	3.745E+00 (m)	V 52
Cr 50	3.1921E+15								
Cr 52	6.1558E+16								
Cr 53	6.9793E+15								
Cr 54	1.7375E+15								
Mn 55	3.2198E+17								
Mn 56	4.4368E+04	1.3397E-12	1.7943E-08	2.3972E+00	3.3125E+00	8.9528E-11	8.2814E-07	2.579E+00 (h)	Mn 56
Fe 54	1.4290E+20								
Fe 55	8.3377E+08	6.3189E-15	7.8682E-07	4.7587E-03	6.6960E+00	1.8097E-10	2.2099E-06	2.735E+00 (y)	Fe 55
Fe 56	2.2412E+21								
Fe 57	5.1785E+19								
Fe 58	6.8395E+18								
Co 59	1.4406E+16								
Co 60m1	6.2401E+02	7.0265E-15	6.3704E-12	2.0291E-03	6.8828E-01	1.8602E-11	1.1706E-09	1.047E+01 (m)	Co 60m1
Ni 58	2.9537E+16								
Ni 60	1.1378E+16								
Ni 61	4.9463E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Ni 62	1.5767E+15								
Ni 64	4.0178E+14								
Cu 63	2.0027E+16								
Cu 65	8.9265E+15								
Zn 64	2.2091E+16								
Zn 66	1.2682E+16								
Zn 67	1.8637E+15								
Zn 68	8.5456E+15								
Zn 70	2.7273E+14								
Ga 69	6.1006E+15								
Ga 71	4.0485E+15								
As 75	1.1334E+16								
Br 79	1.7953E+15								
Br 80	3.7501E+02	3.1588E-14	4.8125E-11	8.0659E-03	2.4615E-01	6.6528E-12	7.6208E-09	1.760E+01 (m)	Br 80
Br 81	1.7464E+15								
Rb 85	2.1507E+16								
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	4.796E+04 (My)	Rb 87
Sr 84	1.3656E+15								
Sr 86	2.4044E+16								
Sr 87	1.7070E+16								

Sr 88	2.0138E+17								
Y 89	1.4325E+16								
Zr 90	2.9533E+16								
Zr 91	6.4405E+15								
Zr 92	9.8444E+15								
Zr 94	9.9764E+15								
Zr 96	1.6072E+15								
Nb 93	4.5695E+15								
Sb121	6.6494E+14								
Sb123	4.9734E+14								
Ba130	2.2060E+14								
Ba132	2.1020E+14								
Ba134	5.0301E+15								
Ba135	1.3719E+16								
Ba136	1.6345E+16								
Ba137	2.3375E+16								
Ba138	1.4921E+17								
Sm144	5.7981E+13								
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	1.059E+05(My)	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	6.971E+09(My)	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	2.000E+09(My)	Sm149
Sm150	1.3893E+14								
Sm152	5.0338E+14								
Sm154	4.2827E+14								
W180	9.2365E+11								
W182	2.0397E+14								
W183	1.1014E+14								
W184	2.3584E+14								
W186	2.1883E+14								
Pb204	6.6931E+13								
Pb206	1.1522E+15								
Pb207	1.0566E+15								
Pb208	2.5051E+15								
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	2.457E+05 (y)	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	7.037E+02(My)	U235

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	4.468E+03(My)	U238
U239	7.4542E+02	2.7124E-14	5.5108E-11	8.0515E-03	3.6689E-01	9.9160E-12	1.0277E-08	2.347E+01 (m)	U239

here are 106 Nuclides.

Totals:	4.4129E+22	9.4929E-10	1.847787E+04	1.4837E+03	1.9996E+03	5.4043E-08	5.0743E-05

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

Elapsed Time : 41.97 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83775E+08
He	2.16991E+10
Na	1.09073E+19
Mg	5.03160E+08
Al	1.10676E+22
Si	1.88622E+11
P	3.97534E+03
S	9.35628E+20
Cl	4.44436E+09
Ar	5.24495E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52220E+07
As	1.13335E+16
Se	7.50689E+07
Br	3.54167E+15
Kr	3.39683E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50502E+06
In	3.12104E-07
Sn	3.35002E+05
Sb	1.16227E+15
Te	2.03115E+07
I	6.78935E-03

Xe	4.03153E+06
Cs	9.00847E+05
Ba	2.08115E+17
La	3.23786E+06
Ce	1.65750E-01
Pr	5.30569E-02
Nd	6.94072E+04
Pm	6.16694E+04
Sm	1.88252E+15
Eu	1.51803E+08
Gd	1.37010E+06
Lu	0.00000E+00
Hf	1.69778E-02
Ta	2.40448E+04
W	7.69706E+14
Re	2.43333E+06
Hg	1.95545E-01
Tl	6.94656E-01
Pb	4.78079E+15
Bi	2.05925E+03
Th	2.92783E-02
U	1.18888E+15
Np	3.36832E+03
Pu	3.32768E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.8347E-02	5.1540E-01
2	(0.1 -> 0.2 MeV)	1.6874E-03	1.0886E-02
3	(0.2 -> 0.4 MeV)	3.6133E-02	1.2044E-01
4	(0.4 -> 0.6 MeV)	1.9795E+00	3.9590E+00
5	(0.6 -> 0.8 MeV)	1.4643E-02	2.0918E-02
6	(0.8 -> 1.0 MeV)	2.8481E+00	3.1646E+00
7	(1.0 ->1.22 MeV)	4.7010E-02	4.2352E-02
8	(1.22 ->1.44 MeV)	1.7489E+00	1.3150E+00
9	(1.44 ->1.66 MeV)	9.8692E+00	6.3672E+00
10	(1.66 -> 2.0 MeV)	3.3631E+03	1.8378E+03
11	(2.0 -> 2.5 MeV)	1.5024E+00	6.6775E-01
12	(2.5 -> 3.0 MeV)	2.2499E+00	8.1816E-01
13	(3.0 -> 4.0 MeV)	8.6269E+01	2.4648E+01
14	(4.0 -> 5.0 MeV)	8.9585E+00	1.9908E+00
15	(5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9908E+00	2.4648E+01	8.1816E-01
6.6775E-01	1.8378E+03	7.6822E+00	4.2352E-02	3.1646E+00	2.0918E-02
3.9590E+00	6.0221E-02	6.0221E-02	1.0886E-02	2.5770E-01	2.5770E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 364.87 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Na 23	1.0907E+19							
Al 27	1.1068E+22							
Si 28	1.7093E+11							
S 32	8.8903E+20							
S 33	7.0172E+18							
S 34	3.9390E+19							
S 36	1.8713E+17							
K 39	1.2658E+21							
K 40	1.5880E+17	2.9639E-13	1.7272E+04	1.8228E-01	2.7250E+00	7.3649E-11	1.6926E-05	K 40
K 41	9.1347E+19							
Ca 40	2.7445E+22							
Ca 41	7.4047E+11	8.2997E-17	3.8911E-04	2.9377E-05	1.5794E-01	4.2687E-12	4.5780E-08	Ca 41
Ca 42	1.8317E+20							
Ca 43	3.8219E+19							
Ca 44	5.9056E+20							
Ca 46	1.1324E+18							
Ca 48	5.2941E+19							
Sc 45	1.2591E+16							
Ti 46	2.5495E+17							
Ti 47	2.2992E+17							
Ti 48	2.2782E+18							
Ti 49	1.6719E+17							
Ti 50	1.6008E+17							
V 50	2.2221E+14	5.7258E-24	3.8824E+01	1.5176E-11	3.2771E-11	8.8571E-22	1.6064E-16	V 50
V 51	8.8661E+16							
Cr 50	3.1921E+15							
Cr 52	6.1558E+16							

Cr 53	6.9793E+15							
Cr 54	1.7375E+15							
Mn 55	3.2198E+17							
Fe 54	1.4290E+20							
Fe 55	6.4728E+08	4.9056E-15	6.1083E-07	3.6943E-03	5.1983E+00	1.4049E-10	1.7156E-06	Fe 55
Fe 56	2.2412E+21							
Fe 57	5.1785E+19							
Fe 58	6.8395E+18							
Co 59	1.4406E+16							
Ni 58	2.9537E+16							
Ni 60	1.1378E+16							
Ni 61	4.9463E+14							
Ni 62	1.5767E+15							
Ni 64	4.0178E+14							
Cu 63	2.0027E+16							
Cu 65	8.9265E+15							
Zn 64	2.2091E+16							
Zn 66	1.2682E+16							
Zn 67	1.8637E+15							
Zn 68	8.5456E+15							
Zn 70	2.7273E+14							
Ga 69	6.1006E+15							
Ga 71	4.0485E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
As 75	1.1334E+16							
Br 79	1.7953E+15							
Br 81	1.7464E+15							
Rb 85	2.1507E+16							
Rb 87	8.2934E+15	4.7942E-17	1.0469E+02	0.0000E+00	3.7977E-03	1.0264E-13	5.6937E-09	Rb 87
Sr 84	1.3656E+15							
Sr 86	2.4044E+16							
Sr 87	1.7070E+16							
Sr 88	2.0138E+17							
Y 89	1.4325E+16							
Zr 90	2.9533E+16							
Zr 91	6.4405E+15							
Zr 92	9.8444E+15							
Zr 94	9.9764E+15							
Zr 96	1.6072E+15							
Nb 93	4.5695E+15							
Sb121	6.6494E+14							
Sb123	4.9734E+14							
Ba130	2.2060E+14							
Ba132	2.1020E+14							
Ba134	5.0301E+15							
Ba135	1.3719E+16							
Ba136	1.6345E+16							
Ba137	2.3375E+16							
Ba138	1.4921E+17							
Sm144	5.7981E+13							
Sm147	2.8219E+14	2.1518E-17	1.0377E+02	0.0000E+00	5.8515E-05	1.5815E-15	2.8684E-09	Sm147
Sm148	2.1159E+14	2.1213E-22	6.7327E+01	0.0000E+00	6.6667E-10	1.8018E-20	2.8011E-14	Sm148
Sm149	2.6016E+14	8.4219E-22	7.6688E+01	0.0000E+00	2.8571E-09	7.7219E-20	1.1161E-13	Sm149
Sm150	1.3893E+14							
Sm152	5.0338E+14							
Sm154	4.2827E+14							
W180	9.2365E+11							
W182	2.0397E+14							
W183	1.1014E+14							
W184	2.3584E+14							
W186	2.1883E+14							
Pb204	6.6931E+13							
Pb206	1.1522E+15							
Pb207	1.0566E+15							
Pb208	2.5051E+15							
U234	6.5388E+10	4.5488E-15	5.0884E-02	3.6073E-06	5.8455E-03	1.5799E-13	2.8654E-07	U234
U235	8.5599E+12	2.0022E-16	6.4154E+00	1.9076E-05	2.6715E-04	7.2202E-15	1.2311E-08	U235
U238	1.1803E+15	3.9706E-15	8.0769E+02	3.0961E-06	5.8021E-03	1.5681E-13	2.5560E-07	U238
364.9 (d)		3.1017E-13	1.847787E+04	1.8603E-01	8.0970E+00	2.1884E-10	1.9250E-05	

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 364.87 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.8113E-03	1.6021E-01
2	(0.1 -> 0.2 MeV)	3.7397E-05	2.4127E-04
3	(0.2 -> 0.4 MeV)	3.7000E-06	1.2333E-05
4	(0.4 -> 0.6 MeV)	2.7868E-05	5.5737E-05
5	(0.6 -> 0.8 MeV)	3.4103E-09	4.8719E-09
6	(0.8 -> 1.0 MeV)	1.9953E-09	2.2170E-09
7	(1.0 ->1.22 MeV)	1.9023E-09	1.7138E-09
8	(1.22 ->1.44 MeV)	1.6284E-09	1.2243E-09
9	(1.44 ->1.66 MeV)	4.2594E-01	2.7480E-01
10	(1.66 -> 2.0 MeV)	1.6532E-09	9.0340E-10
11	(2.0 -> 2.5 MeV)	1.9975E-09	8.8778E-10

12 (2.5 -> 3.0 MeV)	1.5319E-09	5.5704E-10
13 (3.0 -> 4.0 MeV)	1.7824E-09	5.0926E-10
14 (4.0 -> 5.0 MeV)	8.6382E-10	1.9196E-10
15 (5.0 -> 6.5 MeV)	5.2611E-10	9.1498E-11

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	9.1498E-11	1.9196E-10	5.0926E-10	5.5704E-10
8.8778E-10	9.0340E-10	2.7480E-01	1.7138E-09	2.2170E-09	4.8719E-09
5.5737E-05	6.1667E-06	6.1667E-06	2.4127E-04	8.0103E-02	8.0103E-02

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

At Cooling Time : 364.87 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.83775E+08
He	2.16991E+10
Na	1.09073E+19
Mg	5.03218E+08
Al	1.10676E+22
Si	1.88623E+11
P	1.88099E-01
S	9.35628E+20
Cl	4.44484E+09
Ar	5.22800E+08
K	1.35727E+21
Ca	2.83107E+22
Sc	1.25906E+16
Ti	3.09035E+18
V	8.88828E+16
Cr	7.34665E+16
Mn	3.21983E+17
Fe	2.44268E+21
Co	1.44063E+16
Ni	4.33883E+16
Cu	2.89540E+16
Zn	4.54555E+16
Ga	1.01490E+16
Ge	2.52239E+07
As	1.13335E+16
Se	7.50777E+07
Br	3.54167E+15
Kr	3.39703E+07
Rb	2.98003E+16
Sr	2.43858E+17
Y	1.43253E+16
Zr	5.74016E+16
Nb	4.56952E+15
Mo	1.50541E+06
In	0.00000E+00
Sn	3.35043E+05
Sb	1.16227E+15
Te	2.03140E+07
I	6.79020E-03
Xe	4.03204E+06
Cs	9.23794E+05
Ba	2.08115E+17
La	3.23806E+06
Ce	1.65771E-01
Pr	5.30613E-02
Nd	7.17779E+04
Pm	5.95117E+04
Sm	1.88252E+15
Eu	1.51831E+08
Gd	1.39197E+06
Lu	0.00000E+00
Hf	1.69778E-02
Ta	2.40490E+04
W	7.69706E+14
Re	2.43363E+06
Hg	1.95536E-01
Tl	6.95453E-01
Pb	4.78079E+15
Bi	2.05944E+03
Th	3.29431E-02
U	1.18888E+15
Np	9.24857E-44
Pu	3.32799E+07
Totals:	4.41291E+22

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	3.709E-04	8.509E+02	2.000E+03	5.404E-02	5.074E-05	9.493E-10	1.847787E+04
364.9 (d)	4.651E-08	3.446E+00	8.097E+00	2.188E-04	1.925E-05	3.102E-13	1.847787E+04

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

For a volume of 1.0000E+00(cm3) of NBS Concrete S1 :

Time	Becquerel	Sv/h	ALI	Watt
zero	2.000E+03	3.709E-04	5.074E-05	9.493E-10
364.9 (d)	8.097E+00	4.651E-08	1.925E-05	3.102E-13

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	8.509E+05	4.040E-10	2.300E-05	2.484E+03
364.9 (d)	3.446E+03	1.320E-13	9.312E-08	1.860E-01

AJBRF Reactor
AJBRF at the Omaha Veterans Affairs Hospital

AJBRF Soil (Side) Flux

Time	Bq/g	Sv/h	W/g	Cl Index
zero	8.509E+02	3.709E-04	4.040E-10	2.733E+03
364.9 (d)	3.446E+00	4.651E-08	1.320E-13	4.108E-01

The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000

we hope that all was O.K.!

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ANITA-2000 INPUT FILE

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a36inv
a36clr
   34    6NYAJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation
 8.03       1.0000-12  1.0       Rebar
Li  0.00000010
N   0.00007700
Na  0.00000720
Al  0.00018000
K   0.00004000
Ca  0.00005000
Sc  0.00000010
Ti  0.00070000
V   0.00020100
Cr  0.13100000
Mn  0.94000000
Fe 98.00000000
Co  0.00010300
Ni  0.00107000
Cu  0.00298000
Zn  0.00006700
As  0.00012900
Br  0.00000110
Rb  0.00002000
Sr  0.00000040
Mo  0.00021800
Ag  0.00000420
Sb  0.00004700
Cs  0.00000060
Ba  0.00040000
La  0.00000030
Sm  0.00000004
Eu  0.00000009
Ho  0.00000004
Lu  0.00000060
Hf  0.00000080
Ta  0.00000060
W   0.00001500
U   0.00000090
          1          4
9.32074+070.0
1.00000+001.00000+031.00000+061.00000+09
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ANITA-2000 OUTPUT FILE

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*****************************************************
* Authors:                                          *
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* Gian Carlo Panini   - ENEA Bologna Italy          *
* (ANITA-2000 is based on the ANITA code by C. Ponti*
*  and S.Stramaccia    - CEC JRC Ispra,1989)        *
*****************************************************
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The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000
contains 1840 Nuclides.

Gamma Data were supplied for 1390 Nuclides.
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

The Library Activation library
contains12392 Reactions.
at 175 Groups.

Set of Fluxes 6 : AJBRF Soil (Side) Flux

Fluxes

0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	1.18160E+05	1.18160E+05
1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05
1.18160E+05					

Total Flux at 175 Groups : 2.64133E+07 !

DENSITY 8.030(g/cm3)

ELEM.	Weight %	AT.WEIGHT	ISO	Rel.Abb.	N/cm3
Li	0.000 ppm	6.9400			0.00000E+00
			Li 6	0.07500	0.00000E+00
			Li 7	0.92500	0.00000E+00
N	0.770 ppm	14.0080			2.65812E+17
			N 14	0.99634	2.64839E+17
			N 15	0.00366	9.72872E+14
Na	0.070 ppm	22.9910			1.47231E+16
			Na 23	1.00000	1.47231E+16
Al	0.0002	26.9800			3.22619E+17
			Al 27	1.00000	3.22619E+17
K	0.400 ppm	39.1000			4.94701E+16
			K 39	0.93258	4.61349E+16
			K 40	0.00012	5.78801E+12
			K 41	0.06730	3.32944E+15
Ca	0.500 ppm	40.0800			6.03257E+16
			Ca 40	0.96941	5.84803E+16
			Ca 42	0.00647	3.90307E+14
			Ca 43	0.00135	8.14397E+13
			Ca 44	0.02086	1.25839E+15
			Ca 46	0.00004	2.41303E+12
			Ca 48	0.00187	1.12809E+14
Sc	0.000 ppm	44.9600			0.00000E+00

			Sc 45	1.00000	0.00000E+00
Ti	0.0007	47.9000			7.06679E+17
			Ti 46	0.08250	5.83010E+16
			Ti 47	0.07440	5.25769E+16
			Ti 48	0.73720	5.20964E+17
			Ti 49	0.05410	3.82314E+16
			Ti 50	0.05180	3.66060E+16
V	0.0002	50.9500			1.90771E+17
			V 50	0.00250	4.76927E+14
			V 51	0.99750	1.90294E+17
Cr	0.1310	52.0100			1.21799E+20
			Cr 50	0.04345	5.29217E+18
			Cr 52	0.83790	1.02056E+20
			Cr 53	0.09500	1.15709E+19
			Cr 54	0.02365	2.88055E+18
Mn	0.9400	54.9400			8.27369E+20
			Mn 55	1.00000	8.27369E+20
Fe	98.0000	55.8500			8.48521E+22
			Fe 54	0.05850	4.96385E+21
			Fe 56	0.91750	7.78518E+22
			Fe 57	0.02120	1.79887E+21
			Fe 58	0.00280	2.37586E+20
Co	0.0001	58.9400			8.45059E+16
			Co 59	1.00000	8.45059E+16
Ni	0.0011	58.7100			8.81316E+17
			Ni 58	0.68077	5.99973E+17
			Ni 60	0.26223	2.31107E+17
			Ni 61	0.01140	1.00470E+16
			Ni 62	0.03634	3.20270E+16
			Ni 64	0.00926	8.16098E+15
Cu	0.0030	63.5400			2.26793E+18
			Cu 63	0.69170	1.56872E+18
			Cu 65	0.30830	6.99202E+17
Zn	0.670 ppm	65.3800			4.95553E+16
			Zn 64	0.48600	2.40839E+16
			Zn 66	0.27900	1.38259E+16
			Zn 67	0.04100	2.03177E+15
			Zn 68	0.18800	9.31639E+15
			Zn 70	0.00600	2.97332E+14
As	0.0001	74.9200			8.32629E+16
			As 75	1.00000	8.32629E+16
Br	0.010 ppm	79.9160			6.05099E+14
			Br 79	0.50690	3.06724E+14
			Br 81	0.49310	2.98374E+14
Rb	0.200 ppm	85.4800			1.13142E+16
			Rb 85	0.72170	8.16549E+15
			Rb 87	0.27830	3.14875E+15
Sr	0.000 ppm	87.6300			0.00000E+00
			Sr 84	0.00560	0.00000E+00
			Sr 86	0.09860	0.00000E+00
			Sr 87	0.07000	0.00000E+00
			Sr 88	0.82580	0.00000E+00
Mo	0.0002	95.9500			1.09868E+17
			Mo 92	0.14840	1.63044E+16
			Mo 94	0.09250	1.01628E+16
			Mo 95	0.15920	1.74910E+16
			Mo 96	0.16680	1.83260E+16
			Mo 97	0.09550	1.04924E+16
			Mo 98	0.24130	2.65112E+16
			Mo100	0.09630	1.05803E+16
Ag	0.040 ppm	107.8800			1.79299E+15
			Ag107	0.51839	9.29470E+14
			Ag109	0.48161	8.63524E+14
Sb	0.470 ppm	121.7600			1.86661E+16
			Sb121	0.57210	1.06789E+16
			Sb123	0.42790	7.98721E+15
Cs	0.000 ppm	132.9100			0.00000E+00
			Cs133	1.00000	0.00000E+00
Ba	0.0004	137.3600			1.40818E+17
			Ba130	0.00106	1.49268E+14
			Ba132	0.00101	1.42227E+14
			Ba134	0.02417	3.40358E+15
			Ba135	0.06592	9.28275E+15
			Ba136	0.07854	1.10599E+16
			Ba137	0.11232	1.58167E+16
			Ba138	0.71698	1.00964E+17
La	0.000 ppm	138.9200			0.00000E+00
			La138	0.00090	0.00000E+00
			La139	0.99910	0.00000E+00
Sm	0.000 ppm	150.3500			0.00000E+00
			Sm144	0.03080	0.00000E+00
			Sm147	0.14990	0.00000E+00
			Sm148	0.11240	0.00000E+00
			Sm149	0.13820	0.00000E+00
			Sm150	0.07380	0.00000E+00
			Sm152	0.26740	0.00000E+00
			Sm154	0.22750	0.00000E+00
Eu	0.000 ppm	152.0000			0.00000E+00
			Eu151	0.47810	0.00000E+00
			Eu153	0.52190	0.00000E+00
Ho	0.000 ppm	164.9400			0.00000E+00
			Ho165	1.00000	0.00000E+00
Lu	0.000 ppm	174.9900			0.00000E+00
			Lu175	0.97410	0.00000E+00
			Lu176	0.02590	0.00000E+00

Hf	0.000 ppm	178.5000			0.00000E+00
			Hf174	0.00162	0.00000E+00
			Hf176	0.05206	0.00000E+00
			Hf177	0.18606	0.00000E+00
			Hf178	0.27297	0.00000E+00
			Hf179	0.13629	0.00000E+00
			Hf180	0.35100	0.00000E+00
Ta	0.000 ppm	180.9500			0.00000E+00
			Ta180	0.00012	0.00000E+00
			Ta181	0.99988	0.00000E+00
W	0.150 ppm	183.8600			3.94515E+15
			W180	0.00120	4.73418E+12
			W182	0.26500	1.04547E+15
			W183	0.14310	5.64551E+14
			W184	0.30640	1.20879E+15
			W186	0.28430	1.12161E+15
U	0.000 ppm	238.0700			0.00000E+00
			U234	0.00006	0.00000E+00
			U235	0.00720	0.00000E+00
			U238	0.99274	0.00000E+00

99.0773

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Isotope	N/cm3
Li 6	0.00000E+00
Li 7	0.00000E+00
N 14	2.64839E+17
N 15	9.72872E+14
Na 23	1.47231E+16
Al 27	3.22619E+17
K 39	4.61349E+16
K 40	5.78801E+12
K 41	3.32944E+15
Ca 40	5.84803E+16
Ca 42	3.90307E+14
Ca 43	8.14397E+13
Ca 44	1.25839E+15
Ca 46	2.41303E+12
Ca 48	1.12809E+14
Sc 45	0.00000E+00
Ti 46	5.83010E+16
Ti 47	5.25769E+16
Ti 48	5.20964E+17
Ti 49	3.82314E+16
Ti 50	3.66060E+16
V 50	4.76927E+14
V 51	1.90294E+17
Cr 50	5.29217E+18
Cr 52	1.02056E+20
Cr 53	1.15709E+19
Cr 54	2.88055E+18
Mn 55	8.27369E+20
Fe 54	4.96385E+21
Fe 56	7.78518E+22
Fe 57	1.79887E+21
Fe 58	2.37586E+20
Co 59	8.45059E+16
Ni 58	5.99973E+17
Ni 60	2.31107E+17
Ni 61	1.00470E+16
Ni 62	3.20270E+16
Ni 64	8.16098E+15
Cu 63	1.56872E+18
Cu 65	6.99202E+17
Zn 64	2.40839E+16
Zn 66	1.38259E+16
Zn 67	2.03177E+15
Zn 68	9.31639E+15
Zn 70	2.97332E+14
As 75	8.32629E+16
Br 79	3.06724E+14
Br 81	2.98374E+14
Rb 85	8.16549E+15

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Isotope	N/cm3
Rb 87	3.14875E+15
Sr 84	0.00000E+00
Sr 86	0.00000E+00
Sr 87	0.00000E+00
Sr 88	0.00000E+00
Mo 92	1.63044E+16
Mo 94	1.01628E+16
Mo 95	1.74910E+16
Mo 96	1.83260E+16
Mo 97	1.04924E+16
Mo 98	2.65112E+16
Mo100	1.05803E+16
Ag107	9.29470E+14
Ag109	8.63524E+14
Sb121	1.06789E+16

Sb123	7.98721E+15
Cs133	0.00000E+00
Ba130	1.49268E+14
Ba132	1.42227E+14
Ba134	3.40358E+15
Ba135	9.28275E+15
Ba136	1.10599E+16
Ba137	1.58167E+16
Ba138	1.00964E+17
La138	0.00000E+00
La139	0.00000E+00
Sm144	0.00000E+00
Sm147	0.00000E+00
Sm148	0.00000E+00
Sm149	0.00000E+00
Sm150	0.00000E+00
Sm152	0.00000E+00
Sm154	0.00000E+00
Eu151	0.00000E+00
Eu153	0.00000E+00
Ho165	0.00000E+00
Lu175	0.00000E+00
Lu176	0.00000E+00
Hf174	0.00000E+00
Hf176	0.00000E+00
Hf177	0.00000E+00
Hf178	0.00000E+00
Hf179	0.00000E+00
Hf180	0.00000E+00
Ta180	0.00000E+00
Ta181	0.00000E+00
W180	4.73418E+12
W182	1.04547E+15
W183	5.64551E+14
W184	1.20879E+15

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Isotope	N/cm3
W186	1.12161E+15
U234	0.00000E+00
U235	0.00000E+00
U238	0.00000E+00

In Total : 8.58066E+22 Min. acceptable Conc. : 8.58066E+10 N/cm3.

Elapsed Time.

Step 1 : Activation of 9.32074E+07(s), i.e. 2.95 (y) 2.95 (y) Intervals : 2

Cooling Times (s) :

1.0000E+00 1.0000E+03 1.0000E+06 1.0000E+09

1.0 (s) 16.7 (m) 11.6 (d) 31.7 (y)

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 2.95 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	1.6642E+08	2.8264E-13	9.7596E-07	1.9658E-01	4.8195E+01	1.3026E-09	1.8325E-06	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56

Fe 54	4.9638E+21								
Fe 55	5.1170E+11	3.8780E-12	4.8288E-04	8.5469E-01	4.1094E+03	1.1107E-07	1.3563E-03	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	2.3847E+09	9.0033E-11	4.9935E-04	6.3676E+01	4.2996E+02	1.1621E-08	7.7331E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60	5.5643E+08	9.6600E-13	2.3182E-04	7.2301E-01	2.3186E+00	6.2666E-11	7.8865E-06	5.271E+00 (y)	Co 60
Co 60ml	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60ml
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 68	9.3164E+15								
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.8009E+01	2.6105E-13	9.3033E-12	5.8337E-03	1.3471E+00	3.6409E-11	8.8627E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4369E+05	4.0320E-13	1.3550E-07	1.3689E-01	2.5104E+00	6.7850E-11	4.2695E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Sb124	8.6665E+06	4.1518E-13	3.1169E-06	2.6786E-01	1.1544E+00	3.1199E-11	2.8859E-06	6.023E+01 (d)	Sb124
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 83 Nuclides.

Totals:	8.5807E+22	6.1321E-09	1.237092E+02	3.2260E+03	1.9539E+04	5.2807E-07	5.8870E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 2.95 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.80576E+07
He	6.10066E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.88364E-02
C	2.52551E+07
N	2.65812E+17
O	1.25000E+00
Na	1.47231E+I6
Mg	6.99526E+05
Al	3.22619E+17
Si	5.13460E+06
S	1.76455E-03
Cl	3.21153E+04
Ar	2.10084E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	4.96073E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20

Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	3.00044E+06
Ge	1.26344E+02
As	8.32629E+16
Se	5.51781E+08
Br	6.05099E+14
Kr	5.97903E+06
Rb	1.13142E+16
Sr	7.99726E+06
Y	1.03416E+01
Zr	4.58549E+03
Nb	1.10157E+03
Mo	1.09868E+17
Tc	2.18979E+07
Ru	5.34860E+06
Pd	3.23733E+05
Ag	1.79299E+15
Cd	1.40978E+08
In	5.01239E-06
Sn	5.52639E+06
Sb	1.86661E+16
Te	3.26793E+08
I	4.50515E-03
Xe	2.73136E+06
Cs	1.16443E+05
Ba	1.40818E+17
La	2.25803E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.96983E-02
Ta	1.06545E+05
W	3.94515E+15
Re	1.25933E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.9164E+00	1.2575E+02
2	(0.1 -> 0.2 MeV)	3.2000E+00	2.0645E+01
3	(0.2 -> 0.4 MeV)	1.9403E+00	6.4676E+00
4	(0.4 -> 0.6 MeV)	4.7879E+00	9.5757E+00
5	(0.6 -> 0.8 MeV)	1.2385E+00	1.7693E+00
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	2.7792E+02	2.5037E+02
8	(1.22 ->1.44 MeV)	2.6472E+02	1.9904E+02
9	(1.44 ->1.66 MeV)	4.0375E-01	2.6048E-01
10	(1.66 -> 2.0 MeV)	7.4260E+03	4.0579E+03
11	(2.0 -> 2.5 MeV)	4.5196E+03	2.0087E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0087E+03	4.0579E+03	1.9930E+02	2.5037E+02	1.3877E+04	1.7693E+00
9.5757E+00	3.2338E+00	3.2338E+00	2.0645E+01	6.2876E+01	6.2876E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 1.00 (s)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 51	1.6642E+08	2.8264E-13	9.7596E-07	1.9658E-01	4.8195E+01	1.3026E-09	1.8325E-06	Cr 51
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Cr 55	2.4648E+02	1.4182E-13	4.3464E-11	4.2495E-04	8.0426E-01	2.1737E-11	1.1264E-09	Cr 55
Mn 55	8.2737E+20							
Mn 56	1.9980E+08	6.0328E-09	8.0803E-05	3.1593E+03	1.4917E+04	4.0316E-07	3.7293E-03	Mn 56
Fe 54	4.9638E+21							
Fe 55	5.1170E+11	3.8780E-12	4.8288E-04	8.5469E-01	4.1094E+03	1.1107E-07	1.3563E-03	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Fe 59	2.3847E+09	9.0033E-11	4.9935E-04	6.3676E+01	4.2996E+02	1.1621E-08	7.7331E-04	Fe 59
Co 59	8.4506E+16							
Co 60	5.5643E+08	9.6600E-13	2.3182E-04	7.2301E-01	2.3186E+00	6.2666E-11	7.8865E-06	Co 60
Co 60m1	3.6564E+03	4.1172E-14	3.7327E-11	3.4795E-03	4.0330E+00	1.0900E-10	6.8588E-09	Co 60m1
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 64	8.2058E+05	6.3029E-13	4.1581E-08	2.9518E-01	1.2438E+01	3.3617E-10	1.4932E-06	Cu 64
Cu 65	6.9920E+17							
Cu 66	1.0469E+03	4.3779E-13	1.9328E-10	2.4172E-02	2.3712E+00	6.4085E-11	3.7939E-08	Cu 66
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Zn 70	2.9733E+14							
As 75	8.3263E+16							
As 76	8.0991E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4792E-06	As 76
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							
Mo 95	1.7491E+16							
Mo 96	1.8326E+16							
Mo 97	1.0492E+16							
Mo 98	2.6511E+16							
Mo100	1.0580E+16							
Ag107	9.2947E+14							
Ag109	8.6352E+14							
Ag110	4.6682E+01	2.5383E-13	9.0460E-12	5.6724E-03	1.3099E+00	3.5402E-11	8.6177E-10	Ag110
Sb121	1.0679E+16							
Sb122	8.4369E+05	4.0319E-13	1.3550E-07	1.3689E-01	2.5104E+00	6.7850E-11	4.2694E-06	Sb122
Sb123	7.9872E+15							
Sb124	8.6665E+06	4.1518E-13	3.1169E-06	2.6786E-01	1.1544E+00	3.1199E-11	2.8859E-06	Sb124
Ba130	1.4927E+14							
Ba132	1.4223E+14							
Ba134	3.4036E+15							
Ba135	9.2828E+15							
Ba136	1.1060E+16							
Ba137	1.5817E+16							
Ba138	1.0096E+17							
W180	4.7342E+12							
W182	1.0455E+15							
W183	5.6455E+14							
W184	1.2088E+15							
W186	1.1216E+15							
1.0 (s)		6.1317E-09	1.237092E+02	3.2258E+03	1.9538E+04	5.2804E-07	5.8867E-03	

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 1.00 (s)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.9164E+00	1.2575E+02
2	(0.1 -> 0.2 MeV)	3.2000E+00	2.0645E+01
3	(0.2 -> 0.4 MeV)	1.9403E+00	6.4676E+00
4	(0.4 -> 0.6 MeV)	4.7878E+00	9.5756E+00
5	(0.6 -> 0.8 MeV)	1.2374E+00	1.7677E+00
6	(0.8 -> 1.0 MeV)	1.2488E+04	1.3876E+04
7	(1.0 ->1.22 MeV)	2.7791E+02	2.5037E+02
8	(1.22 ->1.44 MeV)	2.6472E+02	1.9903E+02
9	(1.44 ->1.66 MeV)	4.0375E-01	2.6048E-01
10	(1.66 -> 2.0 MeV)	7.4254E+03	4.0576E+03
11	(2.0 -> 2.5 MeV)	4.5192E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9291E+02	2.8833E+02
13	(3.0 -> 4.0 MeV)	7.9518E+01	2.2719E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2719E+01	2.8833E+02
2.0086E+03	4.0576E+03	1.9929E+02	2.5037E+02	1.3876E+04	1.7677E+00
9.5756E+00	3.2338E+00	3.2338E+00	2.0645E+01	6.2876E+01	6.2876E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 16.67 (m)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 51	1.6637E+08	2.8256E-13	9.7568E-07	1.9652E-01	4.8181E+01	1.3022E-09	1.8320E-06	Cr 51
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Mn 56	1.8544E+08	5.5992E-09	7.4996E-05	2.9322E+03	1.3845E+04	3.7419E-07	3.4612E-03	Mn 56
Fe 54	4.9638E+21							
Fe 55	5.1169E+11	3.8780E-12	4.8288E-04	8.5469E-01	4.1094E+03	1.1107E-07	1.3562E-03	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Fe 59	2.3843E+09	9.0017E-11	4.9926E-04	6.3664E+01	4.2988E+02	1.1618E-08	7.7317E-04	Fe 59
Co 59	8.4506E+16							
Co 60	5.5643E+08	9.6600E-13	2.3182E-04	7.2301E-01	2.3186E+00	6.2666E-11	7.8865E-06	Co 60
Co 60m1	1.2148E+03	1.3679E-14	1.2401E-11	1.1560E-03	1.3399E+00	3.6214E-11	2.2788E-09	Co 60m1
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 64	8.0824E+05	6.2082E-13	4.0957E-08	2.9074E-01	1.2251E+01	3.3112E-10	1.4708E-06	Cu 64
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3

As 76	8.0401E+05	1.4073E-12	1.9238E-07	3.1736E-01	5.8814E+00	1.5896E-10	9.4102E-06	As 76
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							
Mo 95	1.7491E+16							
Mo 96	1.8326E+16							
Mo 97	1.0492E+16							
Mo 98	2.6511E+16							
Mo100	1.0580E+16							
Ag107	9.2947E+14							
Ag109	8.6352E+14							
Sb121	1.0679E+16							
Sb122	8.4120E+05	4.0200E-13	1.3510E-07	1.3649E-01	2.5030E+00	6.7649E-11	4.2568E-06	Sb122
Sb123	7.9872E+15							
Sb124	8.6654E+06	4.1512E-13	3.1165E-06	2.6783E-01	1.1542E+00	3.1195E-11	2.8856E-06	Sb124
Ba130	1.4927E+14							
Ba132	1.4223E+14							
Ba134	3.4036E+15							
Ba135	9.2828E+15							
Ba136	1.1060E+16							
Ba137	1.5817E+16							
Ba138	1.0096E+17							
W180	4.7342E+12							
W182	1.0455E+15							
W183	5.6455E+14							
W184	1.2088E+15							
W186	1.1216E+15							
16.7 (m)		5.6972E-09	1.237091E+02	2.9987E+03	1.8458E+04	4.9886E-07	5.6184E-03	

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 16.67 (m)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.9069E+00	1.2558E+02
2	(0.1 -> 0.2 MeV)	3.1994E+00	2.0642E+01
3	(0.2 -> 0.4 MeV)	1.9397E+00	6.4656E+00
4	(0.4 -> 0.6 MeV)	4.7396E+00	9.4792E+00
5	(0.6 -> 0.8 MeV)	1.1964E+00	1.7092E+00
6	(0.8 -> 1.0 MeV)	1.1591E+04	1.2879E+04
7	(1.0 ->1.22 MeV)	2.7721E+02	2.4974E+02
8	(1.22 ->1.44 MeV)	2.6309E+02	1.9781E+02
9	(1.44 ->1.66 MeV)	4.0299E-01	2.6000E-01
10	(1.66 -> 2.0 MeV)	6.8918E+03	3.7660E+03
11	(2.0 -> 2.5 MeV)	4.1945E+03	1.8642E+03
12	(2.5 -> 3.0 MeV)	7.3593E+02	2.6761E+02
13	(3.0 -> 4.0 MeV)	7.3803E+01	2.1087E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.1087E+01	2.6761E+02
1.8642E+03	3.7660E+03	1.9807E+02	2.4974E+02	1.2879E+04	1.7092E+00
9.4792E+00	3.2328E+00	3.2328E+00	2.0642E+01	6.2790E+01	6.2790E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 11.57 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 51	1.2457E+08	2.1157E-13	7.3057E-07	1.4715E-01	3.6077E+01	9.7505E-10	1.3717E-06	Cr 51
Cr 52	1.0206E+20							

Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.0760E+11	3.8470E-12	4.7902E-04	8.4786E-01	4.0766E+03	1.1018E-07	1.3454E-03	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Fe 59	1.9913E+09	7.5180E-11	4.1697E-04	5.3170E+01	3.5903E+02	9.7034E-09	6.4573E-04	Fe 59
Co 59	8.4506E+16							
Co 60	5.5412E+08	9.6199E-13	2.3086E-04	7.2001E-01	2.3090E+00	6.2406E-11	7.8538E-06	Co 60
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							
Mo 95	1.7491E+16							
Mo 96	1.8326E+16							
Mo 97	1.0492E+16							
Mo 98	2.6511E+16							
Mo100	1.0580E+16							
Ag107	9.2947E+14							
Ag109	8.6352E+14							
Sb121	1.0679E+16							
Sb123	7.9872E+15							
Sb124	7.5857E+06	3.6340E-13	2.7282E-06	2.3446E-01	1.0104E+00	2.7309E-11	2.5260E-06	Sb124
Ba130	1.4927E+14							
Ba132	1.4223E+14							
Ba134	3.4036E+15							
Ba135	9.2828E+15							
Ba136	1.1060E+16							
Ba137	1.5817E+16							
Ba138	1.0096E+17							
W180	4.7342E+12							
W182	1.0455E+15							
W183	5.6455E+14							
W184	1.2088E+15							
W186	1.1216E+15							
11.6 (d)		8.0564E-11	1.237090E+02	5.5120E+01	4.4750E+03	1.2095E-07	2.0029E-03	

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 11.57 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.8180E+00	1.2396E+02
2	(0.1 -> 0.2 MeV)	2.6721E+00	1.7239E+01
3	(0.2 -> 0.4 MeV)	1.4885E+00	4.9617E+00
4	(0.4 -> 0.6 MeV)	2.9560E-03	5.9119E-03
5	(0.6 -> 0.8 MeV)	7.5882E-01	1.0840E+00
6	(0.8 -> 1.0 MeV)	2.0892E-02	2.3213E-02
7	(1.0 ->1.22 MeV)	2.2650E+02	2.0405E+02
8	(1.22 ->1.44 MeV)	2.0304E+02	1.5266E+02
9	(1.44 ->1.66 MeV)	3.2513E-01	2.0976E-01
10	(1.66 -> 2.0 MeV)	8.2991E-01	4.5350E-01
11	(2.0 -> 2.5 MeV)	1.2373E-01	5.4990E-02
12	(2.5 -> 3.0 MeV)	1.1710E-04	4.2583E-05
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	4.2583E-05
5.4990E-02	4.5350E-01	1.5287E+02	2.0405E+02	2.3213E-02	1.0840E+00
5.9119E-03	2.4808E+00	2.4808E+00	1.7239E+01	6.1981E+01	6.1981E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 31.69 (y)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	1.6642E+08	1.2612E-15	1.5704E-07	2.7797E-04	1.3365E+00	3.6121E-11	4.4108E-07	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
31.7 (y)		1.2902E-15	1.237079E+02	2.7991E-04	1.3380E+00	3.6163E-11	4.4386E-07

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 31.69 (y)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.2213E-03	4.0386E-02
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00

3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	2.0193E-02	2.0193E-02

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 31.69 (y)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.80576E+07
He	6.10066E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.88364E-02
C	2.51585E+07
N	2.65812E+17
O	1.25000E+00
Na	1.47231E+16
Mg	7.00110E+05
Al	3.22619E+17
Si	5.13461E+06
S	3.55797E-02
Cl	3.24569E+04
Ar	1.91253E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	6.32238E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	3.00075E+06
Ge	1.26417E+02
As	8.32629E+16
Se	5.52591E+08
Br	6.05099E+14
Kr	5.98245E+06
Rb	1.13142E+16
Sr	8.18359E+06
Y	1.03867E+01
Zr	4.60684E+03
Nb	2.07203E+04
Mo	1.09868E+17
Tc	2.19763E+07
Ru	5.35102E+06
Pd	3.28594E+05
Ag	1.79299E+15
Cd	1.43147E+08
In	0.00000E+00
Sn	5.54638E+06
Sb	1.86661E+16
Te	3.36284E+08
I	4.73590E-03
Xe	2.81219E+06
Cs	7.80495E+05
Ba	1.40818E+17
La	2.25820E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00

Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.96984E-02
Ta	1.27061E+05
W	3.94515E+15
Re	1.28575E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	8.065E-04	2.433E+03	1.954E+04	5.281E-01	5.887E-03	6.132E-09	1.237092E+02
1.0 (s)	8.064E-04	2.433E+03	1.954E+04	5.280E-01	5.887E-03	6.132E-09	1.237092E+02
16.7 (m)	7.497E-04	2.299E+03	1.846E+04	4.989E-01	5.618E-03	5.697E-09	1.237091E+02
11.6 (d)	1.378E-05	5.573E+02	4.475E+03	1.209E-01	2.003E-03	8.056E-11	1.237090E+02
31.7 (y)	6.998E-11	1.666E-01	1.338E+00	3.616E-05	4.439E-07	1.290E-15	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar

Time	Becquerel	Sv/h	ALI	Watt
zero	1.954E+04	8.065E-04	5.887E-03	6.132E-09
1.0 (s)	1.954E+04	8.064E-04	5.887E-03	6.132E-09
16.7 (m)	1.846E+04	7.497E-04	5.618E-03	5.697E-09
11.6 (d)	4.475E+03	1.378E-05	2.003E-03	8.056E-11
31.7 (y)	1.338E+00	6.998E-11	4.439E-07	1.290E-15

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	2.433E+06	7.637E-10	6.576E-05	3.226E+03
1.0 (s)	2.433E+06	7.636E-10	6.576E-05	3.226E+03
16.7 (m)	2.299E+06	7.095E-10	6.212E-05	2.999E+03
11.6 (d)	5.573E+05	1.003E-11	1.506E-05	5.512E+01
31.7 (y)	1.666E+02	1.607E-16	4.503E-09	2.799E-04

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	2.433E+03	8.065E-04	7.637E-10	3.334E+03
1.0 (s)	2.433E+03	8.064E-04	7.636E-10	3.334E+03
16.7 (m)	2.299E+03	7.497E-04	7.095E-10	3.096E+03
11.6 (d)	5.573E+02	1.378E-05	1.003E-11	1.812E+01
31.7 (y)	1.666E-01	6.998E-11	1.607E-16	5.603E-04

The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000

we hope that all was O.K.!

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ANITA-2000 INPUT FILE

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a36clr
   34     6NYAJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation
 8.03       1.0000-12  1.0       Rebar
Li  0.00000010
N   0.00007700
Na  0.00000720
Al  0.00018000
K   0.00004000
Ca  0.00005000
Sc  0.00000010
Ti  0.00070000
V   0.00020100
Cr  0.13100000
Mn  0.94000000
Fe 98.00000000
Co  0.00010300
Ni  0.00107000
Cu  0.00298000
Zn  0.00006700
As  0.00012900
Br  0.00000110
Rb  0.00002000
Sr  0.00000040
Mo  0.00021800
Ag  0.00000420
Sb  0.00004700
Cs  0.00000060
Ba  0.00040000
La  0.00000030
Sm  0.00000004
Eu  0.00000009
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1.58702+062.99490+07
1.45885+063.00772+07
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2.12400+062.94120+07
1.38060+063.01554+07
6.89330+053.08467+07
2.37945+062.91565+07
2.45055+062.90854+07
4.18396+062.73520+07
3.16070+062.83753+07
4.29096+062.72450+07
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3.16070+062.83753+07
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2.27682+062.92592+07
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ANITA-2000 OUTPUT FILE

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*****************************************************
* Authors:                                          *
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* Gilio Cambi         - Bologna University Italy    *
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* Gian Carlo Panini   - ENEA Bologna Italy          *
* (ANITA-2000 is based on the ANITA code by C. Ponti*
*  and S.Stramaccia    - CEC JRC Ispra,1989)        *
*****************************************************
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The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000
contains 1840 Nuclides.

Gamma Data were supplied for 1390 Nuclides.
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

The Library Activation library
contains12392 Reactions.
at 175 Groups.

Set of Fluxes 6 : AJBRF Soil (Side) Flux

Fluxes

0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
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0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
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0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
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0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
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2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
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2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	1.18160E+05	1.18160E+05
1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05
1.18160E+05					

Total Flux at 175 Groups : 2.64133E+07 !

DENSITY 8.030(g/cm3)

ELEM.	Weight %	AT.WEIGHT	ISO	Rel.Abb.	N/cm3
Li	0.000 ppm	6.9400			0.00000E+00
			Li 6	0.07500	0.00000E+00
			Li 7	0.92500	0.00000E+00
N	0.770 ppm	14.0080			2.65812E+17
			N 14	0.99634	2.64839E+17
			N 15	0.00366	9.72872E+14
Na	0.070 ppm	22.9910			1.47231E+16
			Na 23	1.00000	1.47231E+16
Al	0.0002	26.9800			3.22619E+17
			Al 27	1.00000	3.22619E+17
K	0.400 ppm	39.1000			4.94701E+16
			K 39	0.93258	4.61349E+16
			K 40	0.00012	5.78801E+12
			K 41	0.06730	3.32944E+15
Ca	0.500 ppm	40.0800			6.03257E+16
			Ca 40	0.96941	5.84803E+16
			Ca 42	0.00647	3.90307E+14
			Ca 43	0.00135	8.14397E+13
			Ca 44	0.02086	1.25839E+15
			Ca 46	0.00004	2.41303E+12
			Ca 48	0.00187	1.12809E+14
Sc	0.000 ppm	44.9600			0.00000E+00
			Sc 45	1.00000	0.00000E+00
Ti	0.0007	47.9000			7.06679E+17
			Ti 46	0.08250	5.83010E+16
			Ti 47	0.07440	5.25769E+16
			Ti 48	0.73720	5.20964E+17
			Ti 49	0.05410	3.82314E+16
			Ti 50	0.05180	3.66060E+16
V	0.0002	50.9500			1.90771E+17
			V 50	0.00250	4.76927E+14
			V 51	0.99750	1.90294E+17
Cr	0.1310	52.0100			1.21799E+20
			Cr 50	0.04345	5.29217E+18
			Cr 52	0.83790	1.02056E+20
			Cr 53	0.09500	1.15709E+19
			Cr 54	0.02365	2.88055E+18
Mn	0.9400	54.9400			8.27369E+20
			Mn 55	1.00000	8.27369E+20
Fe	98.0000	55.8500			8.48521E+22
			Fe 54	0.05850	4.96385E+21
			Fe 56	0.91750	7.78518E+22
			Fe 57	0.02120	1.79887E+21
			Fe 58	0.00280	2.37586E+20
Co	0.0001	58.9400			8.45059E+16
			Co 59	1.00000	8.45059E+16
Ni	0.0011	58.7100			8.81316E+17
			Ni 58	0.68077	5.99973E+17
			Ni 60	0.26223	2.31107E+17
			Ni 61	0.01140	1.00470E+16
			Ni 62	0.03634	3.20270E+16
			Ni 64	0.00926	8.16098E+15
Cu	0.0030	63.5400			2.26793E+18
			Cu 63	0.69170	1.56872E+18
			Cu 65	0.30830	6.99202E+17
Zn	0.670 ppm	65.3800			4.95553E+16
			Zn 64	0.48600	2.40839E+16
			Zn 66	0.27900	1.38259E+16
			Zn 67	0.04100	2.03177E+15
			Zn 68	0.18800	9.31639E+15
			Zn 70	0.00600	2.97332E+14
As	0.0001	74.9200			8.32629E+16
			As 75	1.00000	8.32629E+16
Br	0.010 ppm	79.9160			6.05099E+14
			Br 79	0.50690	3.06724E+14
			Br 81	0.49310	2.98374E+14
Rb	0.200 ppm	85.4800			1.13142E+16
			Rb 85	0.72170	8.16549E+15
			Rb 87	0.27830	3.14875E+15
Sr	0.000 ppm	87.6300			0.00000E+00
			Sr 84	0.00560	0.00000E+00
			Sr 86	0.09860	0.00000E+00
			Sr 87	0.07000	0.00000E+00
			Sr 88	0.82580	0.00000E+00
Mo	0.0002	95.9500			1.09868E+17
			Mo 92	0.14840	1.63044E+16
			Mo 94	0.09250	1.01628E+16
			Mo 95	0.15920	1.74910E+16
			Mo 96	0.16680	1.83260E+16
			Mo 97	0.09550	1.04924E+16
			Mo 98	0.24130	2.65112E+16
			Mo100	0.09630	1.05803E+16
Ag	0.040 ppm	107.8800			1.79299E+15
			Ag107	0.51839	9.29470E+14
			Ag109	0.48161	8.63524E+14
Sb	0.470 ppm	121.7600			1.86661E+16
			Sb121	0.57210	1.06789E+16
			Sb123	0.42790	7.98721E+15

Cs	0.000 ppm	132.9100			0.00000E+00
			Cs133	1.00000	0.00000E+00
Ba	0.0004	137.3600			1.40818E+17
			Ba130	0.00106	1.49268E+14
			Ba132	0.00101	1.42227E+14
			Ba134	0.02417	3.40358E+15
			Ba135	0.06592	9.28275E+15
			Ba136	0.07854	1.10599E+16
			Ba137	0.11232	1.58167E+16
			Ba138	0.71698	1.00964E+17
La	0.000 ppm	138.9200			0.00000E+00
			La138	0.00090	0.00000E+00
			La139	0.99910	0.00000E+00
Sm	0.000 ppm	150.3500			0.00000E+00
			Sm144	0.03080	0.00000E+00
			Sm147	0.14990	0.00000E+00
			Sm148	0.11240	0.00000E+00
			Sm149	0.13820	0.00000E+00
			Sm150	0.07380	0.00000E+00
			Sm152	0.26740	0.00000E+00
			Sm154	0.22750	0.00000E+00
Eu	0.000 ppm	152.0000			0.00000E+00
			Eu151	0.47810	0.00000E+00
			Eu153	0.52190	0.00000E+00
Ho	0.000 ppm	164.9400			0.00000E+00
			Ho165	1.00000	0.00000E+00
Lu	0.000 ppm	174.9900			0.00000E+00
			Lu175	0.97410	0.00000E+00
			Lu176	0.02590	0.00000E+00
Hf	0.000 ppm	178.5000			0.00000E+00
			Hf174	0.00162	0.00000E+00
			Hf176	0.05206	0.00000E+00
			Hf177	0.18606	0.00000E+00
			Hf178	0.27297	0.00000E+00
			Hf179	0.13629	0.00000E+00
			Hf180	0.35100	0.00000E+00
Ta	0.000 ppm	180.9500			0.00000E+00
			Ta180	0.00012	0.00000E+00
			Ta181	0.99988	0.00000E+00
W	0.150 ppm	183.8600			3.94515E+15
			W180	0.00120	4.73418E+12
			W182	0.26500	1.04547E+15
			W183	0.14310	5.64551E+14
			W184	0.30640	1.20879E+15
			W186	0.28430	1.12161E+15
U	0.000 ppm	238.0700			0.00000E+00
			U234	0.00006	0.00000E+00
			U235	0.00720	0.00000E+00
			U238	0.99274	0.00000E+00

99.0773
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Isotope	N/cm3
Li 6	0.00000E+00
Li 7	0.00000E+00
N 14	2.64839E+17
N 15	9.72872E+14
Na 23	1.47231E+16
Al 27	3.22619E+17
K 39	4.61349E+16
K 40	5.78801E+12
K 41	3.32944E+15
Ca 40	5.84803E+16
Ca 42	3.90307E+14
Ca 43	8.14397E+13
Ca 44	1.25839E+15
Ca 46	2.41303E+12
Ca 48	1.12809E+14
Sc 45	0.00000E+00
Ti 46	5.83010E+16
Ti 47	5.25769E+16
Ti 48	5.20964E+17
Ti 49	3.82314E+16
Ti 50	3.66060E+16
V 50	4.76927E+14
V 51	1.90294E+17
Cr 50	5.29217E+18
Cr 52	1.02056E+20
Cr 53	1.15709E+19
Cr 54	2.88055E+18
Mn 55	8.27369E+20
Fe 54	4.96385E+21
Fe 56	7.78518E+22
Fe 57	1.79887E+21
Fe 58	2.37586E+20
Co 59	8.45059E+16
Ni 58	5.99973E+17
Ni 60	2.31107E+17
Ni 61	1.00470E+16
Ni 62	3.20270E+16
Ni 64	8.16098E+15
Cu 63	1.56872E+18
Cu 65	6.99202E+17

Zn 64	2.40839E+16
Zn 66	1.38259E+16
Zn 67	2.03177E+15
Zn 68	9.31639E+15
Zn 70	2.97332E+14
As 75	8.32629E+16
Br 79	3.06724E+14
Br 81	2.98374E+14
Rb 85	8.16549E+15

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Isotope	N/cm3
Rb 87	3.14875E+15
Sr 84	0.00000E+00
Sr 86	0.00000E+00
Sr 87	0.00000E+00
Sr 88	0.00000E+00
Mo 92	1.63044E+16
Mo 94	1.01628E+16
Mo 95	1.74910E+16
Mo 96	1.83260E+16
Mo 97	1.04924E+16
Mo 98	2.65112E+16
Mo100	1.05803E+16
Ag107	9.29470E+14
Ag109	8.63524E+14
Sb121	1.06789E+16
Sb123	7.98721E+15
Cs133	0.00000E+00
Ba130	1.49268E+14
Ba132	1.42227E+14
Ba134	3.40358E+15
Ba135	9.28275E+15
Ba136	1.10599E+16
Ba137	1.58167E+16
Ba138	1.00964E+17
La138	0.00000E+00
La139	0.00000E+00
Sm144	0.00000E+00
Sm147	0.00000E+00
Sm148	0.00000E+00
Sm149	0.00000E+00
Sm150	0.00000E+00
Sm152	0.00000E+00
Sm154	0.00000E+00
Eu151	0.00000E+00
Eu153	0.00000E+00
Ho165	0.00000E+00
Lu175	0.00000E+00
Lu176	0.00000E+00
Hf174	0.00000E+00
Hf176	0.00000E+00
Hf177	0.00000E+00
Hf178	0.00000E+00
Hf179	0.00000E+00
Hf180	0.00000E+00
Ta180	0.00000E+00
Ta181	0.00000E+00
W180	4.73418E+12
W182	1.04547E+15
W183	5.64551E+14
W184	1.20879E+15

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Isotope	N/cm3
W186	1.12161E+15
U234	0.00000E+00
U235	0.00000E+00
U238	0.00000E+00

In Total : 8.58066E+22 Min. acceptable Conc. : 8.58066E+10 N/cm3.

Elapsed Time.

Step 1 : Activation of 2.27682E+06(s), i.e. 26.35 (d) 26.35 (d) Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 26.35 (d) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2

N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03 (My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11 (My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0350E+07	1.3646E-13	4.7121E-07	9.4913E-02	2.3269E+01	6.2890E-10	8.8477E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	1.7595E+10	1.3335E-13	1.6604E-05	2.9388E-02	1.4130E+02	3.8190E-09	4.6634E-05	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0290E+08	3.0313E-11	1.6813E-04	2.1439E+01	1.4476E+02	3.9125E-09	2.6037E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04 (My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7980E+01	2.6089E-13	9.2976E-12	5.8302E-03	1.3463E+00	3.6387E-11	8.8573E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0671E-09 1.237081E+02 3.1819E+03 1.5257E+04 4.1235E-07 4.0527E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 26.35 (d) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	6.85397E+05
He	1.49025E+03
Li	0.00000E+00
Be	0.00000E+00
B	7.04408E-04
C	6.17026E+05
N	2.65812E+17
O	1.31772E-07
Na	1.47231E+16
Mg	1.65165E+04
Al	3.22619E+17
Si	1.25451E+05
S	4.70192E-07
Cl	6.53380E+02
Ar	6.46088E+02
K	4.94701E+16
Ca	6.03257E+16
Sc	8.42007E+01
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	7.29878E+04
Ge	3.01493E+00
As	8.32629E+16
Se	1.26884E+07
Br	6.05099E+14
Kr	1.42400E+05
Rb	1.13142E+16
Sr	8.35852E+04
Y	2.08770E-01
Zr	9.47240E+01
Nb	2.32398E+01
Mo	1.09868E+17
Tc	4.56288E+05
Ru	1.30507E+05
Pd	7.90173E+03
Ag	1.79299E+15
Cd	3.33563E+06
In	5.01239E-06
Sn	1.15508E+05
Sb	1.86661E+16
Te	5.12460E+06
I	2.47036E-05
Xe	1.52446E+04
Cs	1.85553E+04
Ba	1.40818E+17
La	5.49902E+04
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	2.19097E-03
Ta	2.22938E+02
W	3.94515E+15
Re	2.46229E+05
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.9153E-01	5.3006E+00

2 (0.1 -> 0.2 MeV)	1.0774E+00	6.9510E+00
3 (0.2 -> 0.4 MeV)	8.7552E-01	2.9184E+00
4 (0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5 (0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6 (0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7 (1.0 ->1.22 MeV)	9.7419E+01	8.7765E+01
8 (1.22 ->1.44 MeV)	1.0275E+02	7.7257E+01
9 (1.44 ->1.66 MeV)	1.3601E-01	8.7749E-02
10 (1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11 (2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12 (2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13 (3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14 (4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15 (5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7345E+01	8.7765E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4592E+00	1.4592E+00	6.9510E+00	2.6503E+00	2.6503E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	1.3910E+10	1.0542E-13	1.3127E-05	2.3234E-02	1.1171E+02	3.0192E-09	3.6869E-05	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						

Ba130	1.4927E+14
Ba132	1.4223E+14
Ba134	3.4036E+15
Ba135	9.2828E+15
Ba136	1.1060E+16
Ba137	1.5817E+16
Ba138	1.0096E+17
W180	4.7342E+12
W182	1.0455E+15
W183	5.6455E+14
W184	1.2088E+15
W186	1.1216E+15

338.6 (d) 1.0545E-13 1.237079E+02 2.3236E-02 1.1171E+02 3.0193E-09 3.6871E-05

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.8567E-01	3.3757E+00
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	1.6879E+00	1.6879E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	6.85397E+05
He	1.49025E+03
Li	0.00000E+00
Be	0.00000E+00
B	7.04408E-04
C	6.16957E+05
N	2.65812E+17
O	2.63545E-07
Na	1.47231E+16
Mg	1.71011E+04
Al	3.22619E+17
Si	1.25461E+05
S	2.46398E-05
Cl	7.92717E+02
Ar	5.05600E+02
K	4.94701E+16
Ca	6.03257E+16
Sc	1.19919E+03
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	7.33007E+04
Ge	3.08806E+00
As	8.32629E+16
Se	1.34984E+07
Br	6.05099E+14
Kr	1.46144E+05
Rb	1.13142E+16
Sr	1.99903E+05
Y	2.53708E-01
Zr	1.12535E+02
Nb	1.86030E+01

Mo	1.09868E+17
Tc	5.36882E+05
Ru	1.30652E+05
Pd	7.90602E+03
Ag	1.79299E+15
Cd	3.43380E+06
In	0.00000E+00
Sn	1.35484E+05
Sb	1.86661E+16
Te	8.16854E+06
I	1.15541E-04
Xe	6.86946E+04
Cs	1.31609E+03
Ba	1.40818E+17
La	5.51643E+04
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	2.19111E-03
Ta	2.68986E+03
W	3.94515E+15
Re	3.11700E+05
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.900E+03	1.526E+04	4.124E-01	4.053E-03	6.067E-09	1.237081E+02
338.6 (d)	5.809E-09	1.391E+01	1.117E+02	3.019E-03	3.687E-05	1.055E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.526E+04	7.955E-04	4.053E-03	6.067E-09
338.6 (d)	1.117E+02	5.809E-09	3.687E-05	1.055E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.900E+06	7.556E-10	5.135E-05	3.182E+03
338.6 (d)	1.391E+04	1.313E-14	3.760E-07	2.324E-02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.900E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	1.391E+01	5.809E-09	1.313E-14	4.638E-02

			Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0671E-09	1.237081E+02	3.1819E+03	1.5257E+04	4.1235E-07	4.0527E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.0545E-13	1.237079E+02	2.3236E-02	1.1171E+02	3.0193E-09	3.6871E-05

Step : 2
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 1.07 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	3.1253E+10	2.3686E-13	2.9493E-05	5.2202E-02	2.5099E+02	6.7835E-09	8.2835E-05	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0563E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4525E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2978E-12	5.8303E-03	1.3463E+00	3.6388E-11	8.8575E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								

Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals:	8.5807E+22	6.0673E-09	1.237081E+02	3.1819E+03	1.5367E+04	4.1533E-07	4.0898E-03

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 1.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.37079E+06
He	2.98049E+03
Li	0.00000E+00
Be	0.00000E+00
B	1.40882E-03
C	1.23398E+06
N	2.65812E+17
O	3.95317E-07
Na	1.47231E+16
Mg	3.36176E+04
Al	3.22619E+17
Si	2.50912E+05
S	2.69907E-05
Cl	1.44617E+03
Ar	1.15153E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	1.32004E+03
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.46288E+05
Ge	6.10299E+00
As	8.32629E+16
Se	2.61868E+07
Br	6.05099E+14
Kr	2.88544E+05
Rb	1.13142E+16
Sr	2.83489E+05
Y	4.62478E-01
Zr	2.07259E+02
Nb	4.29390E+01
Mo	1.09868E+17
Tc	9.93169E+05
Ru	2.61159E+05
Pd	1.58080E+04
Ag	1.79299E+15
Cd	6.77386E+06
In	5.01239E-06
Sn	2.50993E+05
Sb	1.86661E+16
Te	1.33052E+07
I	1.40302E-04
Xe	8.39393E+04
Cs	1.99667E+04
Ba	1.40818E+17
La	1.10155E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00

Lu	0.00000E+00
Hf	4.38207E-03
Ta	2.97080E+03
W	3.94515E+15
Re	5.58442E+05
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	4.7384E-01	8.6153E+00
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9746E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7725E+01	8.8041E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7463E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8012E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7551E+01	8.8041E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9746E+00	4.3076E+00	4.3076E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	2.4708E+10	1.8726E-13	2.3317E-05	4.1270E-02	1.9843E+02	5.3629E-09	6.5488E-05	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							

Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		1.8728E-13	1.237079E+02	4.1272E-02	1.9843E+02	5.3630E-09	6.5491E-05

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	3.2979E-01	5.9962E+00
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	2.9981E+00	2.9981E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.37079E+06
He	2.98049E+03
Li	0.00000E+00
Be	0.00000E+00
B	1.40882E-03
C	1.23384E+06
N	2.65812E+17
O	5.27090E-07
Na	1.47231E+16
Mg	3.42022E+04
Al	3.22619E+17
Si	2.50923E+05
S	7.53298E-05
Cl	1.58560E+03
Ar	1.00979E+03

K	4.94701E+16
Ca	6.03257E+16
Sc	2.67064E+03
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.46602E+05
Ge	6.17612E+00
As	8.32629E+16
Se	2.69968E+07
Br	6.05099E+14
Kr	2.92288E+05
Rb	1.13142E+16
Sr	3.99807E+05
Y	5.07416E-01
Zr	2.25069E+02
Nb	5.23916E+01
Mo	1.09868E+17
Tc	1.07376E+06
Ru	2.61305E+05
Pd	1.58159E+04
Ag	1.79299E+15
Cd	6.90767E+06
In	0.00000E+00
Sn	2.70968E+05
Sb	1.86661E+16
Te	1.63824E+07
I	2.31227E-04
Xe	1.37389E+05
Cs	3.91292E+03
Ba	1.40818E+17
La	1.10329E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	4.38221E-03
Ta	5.74249E+03
W	3.94515E+15
Re	6.25694E+05
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.914E+03	1.537E+04	4.153E-01	4.090E-03	6.067E-09	1.237081E+02
338.6 (d)	1.032E-08	2.471E+01	1.984E+02	5.363E-03	6.549E-05	1.873E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.537E+04	7.955E-04	4.090E-03	6.067E-09
338.6 (d)	1.984E+02	1.032E-08	6.549E-05	1.873E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.914E+06	7.556E-10	5.172E-05	3.182E+03
338.6 (d)	2.471E+04	2.332E-14	6.679E-07	4.127E-02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.914E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	2.471E+01	1.032E-08	2.332E-14	8.238E-02

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                                                                    Elapsed Time.

      Step    1 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      26.35 (d)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     365.00 (d)

      Step    2 : Activation of  2.27682E+06(s), i.e.      26.35 (d)       1.07 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)       2.00 (y)

      Step    3 : Activation of  2.27682E+06(s), i.e.      26.35 (d)       2.07 (y)        Intervals :  2

 Cooling Times (s)  :

    2.9259E+07

     338.6 (d)

 AJBRF Reactor


 Step :   1

 Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


 Step :   2

 Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


 Step :   3
      AJBRF Reactor
 AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

 Elapsed Time   :      2.07 (y)          Cooling Time 0.

 Nuclide     N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

  N 14     2.6484E+17
  N 15     9.7287E+14
 Na 23     1.4723E+16
 Al 27     3.2262E+17
  K 39     4.6135E+16
  K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
  K 41     3.3294E+15
 Ca 40     5.8480E+16
 Ca 42     3.9031E+14
 Ca 43     8.1440E+13
 Ca 44     1.2584E+15
 Ca 46     2.4130E+12
 Ca 48     1.1281E+14
 Ti 46     5.8301E+16
 Ti 47     5.2577E+16
 Ti 48     5.2096E+17
 Ti 49     3.8231E+16
 Ti 50     3.6606E+16
  V 50     4.7693E+14   1.2289E-23   8.3329E+01   9.5324E-12   7.0337E-11   1.9010E-21   3.4479E-16   1.489E+11(My)    V 50
  V 51     1.9029E+17
 Cr 50     5.2922E+18
 Cr 51     8.0359E+07   1.3648E-13   4.7126E-07   9.4923E-02   2.3272E+01   6.2897E-10   8.8486E-07   2.770E+01 (d)    Cr 51
 Cr 52     1.0206E+20
 Cr 53     1.1571E+19
 Cr 54     2.8806E+18
 Cr 55     2.4728E+02   1.4229E-13   4.3606E-11   4.2634E-04   8.0689E-01   2.1808E-11   1.1301E-09   3.540E+00 (m)    Cr 55
 Mn 55     8.2737E+20
 Mn 56     1.9982E+08   6.0332E-09   8.0809E-05   3.1595E+03   1.4918E+04   4.0319E-07   3.7296E-03   2.579E+00 (h)    Mn 56
 Fe 54     4.9638E+21
 Fe 55     4.1855E+10   3.1721E-13   3.9498E-05   6.9910E-02   3.3614E+02   9.0848E-09   1.1094E-04   2.735E+00 (y)    Fe 55
 Fe 56     7.7852E+22
 Fe 57     1.7989E+21
 Fe 58     2.3759E+20
 Fe 59     8.0564E+08   3.0416E-11   1.6870E-04   2.1512E+01   1.4526E+02   3.9258E-09   2.6125E-04   4.450E+01 (d)    Fe 59
 Co 59     8.4506E+16
 Co 60m1   3.6604E+03   4.1217E-14   3.7368E-11   3.4834E-03   4.0374E+00   1.0912E-10   6.8663E-09   1.047E+01 (m)    Co 60m1
 Ni 58     5.9997E+17
 Ni 60     2.3111E+17
 Ni 61     1.0047E+16
```

Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04 (My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3463E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0674E-09 1.237082E+02 3.1820E+03 1.5452E+04 4.1763E-07 4.1179E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 2.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.05619E+06
He	4.47074E+03
Li	0.00000E+00
Be	0.00000E+00
B	2.11322E-03
C	1.85085E+06
N	2.65812E+17
O	6.58862E-07
Na	1.47231E+16
Mg	5.07187E+04
Al	3.22619E+17
Si	3.76373E+05
S	7.95615E-05
Cl	2.23905E+03
Ar	1.65563E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	2.79923E+03
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.19589E+05
Ge	9.19105E+00
As	8.32629E+16
Se	3.96852E+07
Br	6.05099E+14
Kr	4.34688E+05
Rb	1.13142E+16

Sr	4.83393E+05
Y	7.16186E-01
Zr	3.19793E+02
Nb	7.78239E+01
Mo	1.09868E+17
Tc	1.53005E+06
Ru	3.91813E+05
Pd	2.37182E+04
Ag	1.79299E+15
Cd	1.02493E+07
In	5.01239E-06
Sn	3.86477E+05
Sb	1.86661E+16
Te	2.15192E+07
I	2.55988E-04
Xe	1.52634E+05
Cs	2.26528E+04
Ba	1.40818E+17
La	1.65319E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	6.57318E-03
Ta	6.03060E+03
W	3.94515E+15
Re	8.72454E+05
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.1535E-01	1.1188E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	5.5941E+00	5.5941E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							

Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	3.3090E+10	2.5078E-13	3.1227E-05	5.5270E-02	2.6574E+02	7.1823E-09	8.7704E-05	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		2.5081E-13	1.237079E+02	5.5272E-02	2.6575E+02	7.1823E-09	8.7707E-05

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	4.4167E-01	8.0304E+00
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)

SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	4.0152E+00	4.0152E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.05619E+06
He	4.47074E+03
Li	0.00000E+00
Be	0.00000E+00
B	2.11322E-03
C	1.85065E+06
N	2.65812E+17
O	7.90634E-07
Na	1.47231E+16
Mg	5.13033E+04
Al	3.22619E+17
Si	3.76384E+05
S	1.52070E-04
Cl	2.37849E+03
Ar	1.51276E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	4.19959E+03
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.19902E+05
Ge	9.26418E+00
As	8.32629E+16
Se	4.04952E+07
Br	6.05099E+14
Kr	4.38431E+05
Rb	1.13142E+16
Sr	5.99711E+05
Y	7.61124E-01
Zr	3.37604E+02
Nb	1.01363E+02
Mo	1.09868E+17
Tc	1.61064E+06
Ru	3.91961E+05
Pd	2.37296E+04
Ag	1.79299E+15
Cd	1.03961E+07
In	0.00000E+00
Sn	4.06452E+05
Sb	1.86661E+16
Te	2.45969E+07
I	3.46913E-04
Xe	2.06084E+05
Cs	7.70931E+03
Ba	1.40818E+17
La	1.65493E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	6.57332E-03
Ta	8.83995E+03
W	3.94515E+15
Re	9.39768E+05
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.924E+03	1.545E+04	4.176E-01	4.118E-03	6.067E-09	1.237082E+02
338.6 (d)	1.382E-08	3.309E+01	2.657E+02	7.182E-03	8.771E-05	2.508E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.545E+04	7.955E-04	4.118E-03	6.067E-09
338.6 (d)	2.657E+02	1.382E-08	8.771E-05	2.508E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.924E+06	7.556E-10	5.201E-05	3.182E+03
338.6 (d)	3.309E+04	3.123E-14	8.944E-07	5.527E-02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.924E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	3.309E+01	1.382E-08	3.123E-14	1.103E-01

			Elapsed Time.	
Step 1 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0671E-09	1.237081E+02	3.1819E+03	1.5257E+04	4.1235E-07	4.0527E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.0545E-13	1.237079E+02	2.3236E-02	1.1171E+02	3.0193E-09	3.6871E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0673E-09	1.237081E+02	3.1819E+03	1.5367E+04	4.1533E-07	4.0898E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.8728E-13	1.237079E+02	4.1272E-02	1.9843E+02	5.3630E-09	6.5491E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0674E-09	1.237082E+02	3.1820E+03	1.5452E+04	4.1763E-07	4.1179E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	2.5081E-13	1.237079E+02	5.5272E-02	2.6575E+02	7.1823E-09	8.7707E-05

Step : 4
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 3.07 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	5.0085E+10	3.7958E-13	4.7265E-05	8.3657E-02	4.0223E+02	1.0871E-08	1.3275E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0564E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0675E-09 1.237082E+02 3.1820E+03 1.5518E+04 4.1942E-07 4.1397E-03
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 3.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.74159E+06
He	5.96098E+03
Li	0.00000E+00
Be	0.00000E+00
B	2.81763E-03
C	2.46766E+06
N	2.65812E+17
O	9.22407E-07
Na	1.47231E+16
Mg	6.78198E+04
Al	3.22619E+17
Si	5.01835E+05
S	1.58182E-04
Cl	3.03194E+03
Ar	2.15851E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	4.32982E+03
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.92890E+05
Ge	1.22791E+01
As	8.32629E+16
Se	5.31836E+07
Br	6.05099E+14
Kr	5.80831E+05
Rb	1.13142E+16
Sr	6.83296E+05
Y	9.69894E-01
Zr	4.32328E+02
Nb	1.27892E+02
Mo	1.09868E+17
Tc	2.06693E+06
Ru	5.22468E+05
Pd	3.16321E+04
Ag	1.79299E+15
Cd	1.37383E+07
In	5.01239E-06
Sn	5.21961E+05
Sb	1.86661E+16
Te	2.97338E+07
I	3.71674E-04
Xe	2.21329E+05
Cs	2.65328E+04
Ba	1.40818E+17
La	2.20483E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.76428E-03
Ta	9.12894E+03
W	3.94515E+15
Re	1.18653E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.2521E-01	1.3186E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	6.5928E+00	6.5928E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	3.9596E+10	3.0009E-13	3.7367E-05	6.6138E-02	3.1800E+02	8.5946E-09	1.0495E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						

Mo 96	1.8326E+16
Mo 97	1.0492E+16
Mo 98	2.6511E+16
Mo100	1.0580E+16
Ag107	9.2947E+14
Ag109	8.6352E+14
Sb121	1.0679E+16
Sb123	7.9872E+15
Ba130	1.4927E+14
Ba132	1.4223E+14
Ba134	3.4036E+15
Ba135	9.2828E+15
Ba136	1.1060E+16
Ba137	1.5817E+16
Ba138	1.0096E+17
W180	4.7342E+12
W182	1.0455E+15
W183	5.6455E+14
W184	1.2088E+15
W186	1.1216E+15

338.6 (d) 3.0012E-13 1.237079E+02 6.6140E-02 3.1800E+02 8.5946E-09 1.0495E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	5.2852E-01	9.6094E+00
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	4.8047E+00	4.8047E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.74159E+06
He	5.96098E+03
Li	0.00000E+00
Be	0.00000E+00
B	2.81763E-03
C	2.46738E+06
N	2.65812E+17
O	1.05418E-06
Na	1.47231E+16
Mg	6.84043E+04
Al	3.22619E+17
Si	5.01846E+05
S	2.54860E-04
Cl	3.17137E+03
Ar	2.01449E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	5.74068E+03
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.93203E+05
Ge	1.23522E+01
As	8.32629E+16

Se	5.39935E+07
Br	6.05099E+14
Kr	5.84574E+05
Rb	1.13142E+16
Sr	7.99615E+05
Y	1.01483E+00
Zr	4.50139E+02
Nb	1.65515E+02
Mo	1.09868E+17
Tc	2.14752E+06
Ru	5.22618E+05
Pd	3.16471E+04
Ag	1.79299E+15
Cd	1.38898E+07
In	0.00000E+00
Sn	5.41937E+05
Sb	1.86661E+16
Te	3.28115E+07
I	4.62599E-04
Xe	2.74779E+05
Cs	1.26292E+04
Ba	1.40818E+17
La	2.20657E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.76442E-03
Ta	1.19429E+04
W	3.94515E+15
Re	1.25384E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.933E+03	1.552E+04	4.194E-01	4.140E-03	6.067E-09	1.237082E+02
338.6 (d)	1.654E-08	3.960E+01	3.180E+02	8.595E-03	1.050E-04	3.001E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.552E+04	7.955E-04	4.140E-03	6.067E-09
338.6 (d)	3.180E+02	1.654E-08	1.050E-04	3.001E-13

AJBRF Reactor — AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.933E+06	7.556E-10	5.223E-05	3.182E+03
338.6 (d)	3.960E+04	3.738E-14	1.070E-06	6.614E-02

AJBRF Reactor — AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.933E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	3.960E+01	1.654E-08	3.738E-14	1.320E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	

Step 5 : Activation of 2.27682E+06(s), i.e. 26.35 (d) 4.07 (y) Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0671E-09	1.237081E+02	3.1819E+03	1.5257E+04	4.1235E-07	4.0527E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.0545E-13	1.237079E+02	2.3236E-02	1.1171E+02	3.0193E-09	3.6871E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0673E-09	1.237081E+02	3.1819E+03	1.5367E+04	4.1533E-07	4.0898E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.8728E-13	1.237079E+02	4.1272E-02	1.9843E+02	5.3630E-09	6.5491E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0674E-09	1.237082E+02	3.1820E+03	1.5452E+04	4.1763E-07	4.1179E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	2.5081E-13	1.237079E+02	5.5272E-02	2.6575E+02	7.1823E-09	8.7707E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0675E-09	1.237082E+02	3.1820E+03	1.5518E+04	4.1942E-07	4.1397E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 4.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.0012E-13	1.237079E+02	6.6140E-02	3.1800E+02	8.5946E-09	1.0495E-04

Step : 5
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 4.07 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51

Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	5.6474E+10	4.2800E-13	5.3294E-05	9.4328E-02	4.5354E+02	1.2258E-08	1.4968E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0564E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04 (My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals:	8.5807E+22	6.0675E-09	1.237082E+02	3.1820E+03	1.5570E+04	4.2080E-07	4.1567E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 4.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.42699E+06
He	7.45123E+03
Li	0.00000E+00
Be	0.00000E+00
B	3.52204E-03
C	3.08438E+06
N	2.65812E+17
O	1.18595E-06
Na	1.47231E+16
Mg	8.49209E+04
Al	3.22619E+17
Si	6.27296E+05
S	2.62854E-04
Cl	3.82482E+03
Ar	2.66015E+03
K	4.94701E+16
Ca	6.03257E+16

Sc	5.87126E+03
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	3.66191E+05
Ge	1.53672E+01
As	8.32629E+16
Se	6.66820E+07
Br	6.05099E+14
Kr	7.26974E+05
Rb	1.13142E+16
Sr	8.83200E+05
Y	1.22360E+00
Zr	5.44863E+02
Nb	1.93139E+02
Mo	1.09868E+17
Tc	2.60380E+06
Ru	6.53125E+05
Pd	3.95499E+04
Ag	1.79299E+15
Cd	1.72323E+07
In	5.01239E-06
Sn	6.57445E+05
Sb	1.86661E+16
Te	3.79483E+07
I	4.87360E-04
Xe	2.90023E+05
Cs	3.15310E+04
Ba	1.40818E+17
La	2.75648E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	1.09554E-02
Ta	1.22320E+04
W	3.94515E+15
Re	1.50060E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.1048E-01	1.4736E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	7.3680E+00	7.3680E+00

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	4.4647E+10	3.3837E-13	4.2133E-05	7.4575E-02	3.5856E+02	9.6909E-09	1.1834E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		3.3840E-13	1.237079E+02	7.4577E-02	3.5856E+02	9.6909E-09	1.1834E-04

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s

1	(10 -> 100 KeV)	5.9593E-01	1.0835E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	5.4176E+00	5.4176E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	3.42699E+06
He	7.45123E+03
Li	0.00000E+00
Be	0.00000E+00
B	3.52204E-03
C	3.08404E+06
N	2.65812E+17
O	1.31772E-06
Na	1.47231E+16
Mg	8.55054E+04
Al	3.22619E+17
Si	6.27307E+05
S	3.83701E-04
Cl	3.96426E+03
Ar	2.51499E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	7.28434E+03
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	3.66504E+05
Ge	1.54403E+01
As	8.32629E+16
Se	6.74919E+07
Br	6.05099E+14
Kr	7.30717E+05
Rb	1.13142E+16
Sr	9.99518E+05
Y	1.26854E+00
Zr	5.62673E+02
Nb	2.44842E+02
Mo	1.09868E+17
Tc	2.68439E+06
Ru	6.53276E+05
Pd	3.95685E+04
Ag	1.79299E+15
Cd	1.73854E+07
In	0.00000E+00
Sn	6.77421E+05
Sb	1.86661E+16
Te	4.10260E+07
I	5.78285E-04
Xe	3.43473E+05
Cs	1.86013E+04
Ba	1.40818E+17
La	2.75822E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00

Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	1.09555E-02
Ta	1.50466E+04
W	3.94515E+15
Re	1.56792E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.939E+03	1.557E+04	4.208E-01	4.157E-03	6.068E-09	1.237082E+02
338.6 (d)	1.864E-08	4.465E+01	3.586E+02	9.691E-03	1.183E-04	3.384E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.557E+04	7.955E-04	4.157E-03	6.068E-09
338.6 (d)	3.586E+02	1.864E-08	1.183E-04	3.384E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.939E+06	7.556E-10	5.240E-05	3.182E+03
338.6 (d)	4.465E+04	4.214E-14	1.207E-06	7.458E-02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.939E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	4.465E+01	1.864E-08	4.214E-14	1.488E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0671E-09	1.237081E+02	3.1819E+03	1.5257E+04	4.1235E-07	4.0527E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.0545E-13	1.237079E+02	2.3236E-02	1.1171E+02	3.0193E-09	3.6871E-05

Step : 2

```
Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6
    AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :      5.07 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
Al 27     3.2262E+17
 K 39     4.6135E+16
 K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
 K 41     3.3294E+15
Ca 40     5.8480E+16
Ca 42     3.9031E+14
Ca 43     8.1440E+13
Ca 44     1.2584E+15
Ca 46     2.4130E+12
Ca 48     1.1281E+14
Ti 46     5.8301E+16
Ti 47     5.2577E+16
Ti 48     5.2096E+17
Ti 49     3.8231E+16
Ti 50     3.6606E+16
 V 50     4.7693E+14   1.2289E-23   8.3329E+01   9.5324E-12   7.0337E-11   1.9010E-21   3.4479E-16   1.489E+11(My)    V 50
 V 51     1.9029E+17
Cr 50     5.2922E+18
Cr 51     8.0359E+07   1.3648E-13   4.7126E-07   9.4923E-02   2.3272E+01   6.2897E-10   8.8486E-07   2.770E+01 (d)    Cr 51
Cr 52     1.0206E+20
Cr 53     1.1571E+19
Cr 54     2.8806E+18
Cr 55     2.4728E+02   1.4229E-13   4.3606E-11   4.2634E-04   8.0689E-01   2.1808E-11   1.1301E-09   3.540E+00 (m)    Cr 55
Mn 55     8.2737E+20
Mn 56     1.9982E+08   6.0332E-09   8.0809E-05   3.1595E+03   1.4918E+04   4.0319E-07   3.7296E-03   2.579E+00 (h)    Mn 56
Fe 54     4.9638E+21
Fe 55     6.1433E+10   4.6559E-13   5.7974E-05   1.0261E-01   4.9337E+02   1.3334E-08   1.6283E-04   2.735E+00 (y)    Fe 55
Fe 56     7.7852E+22
Fe 57     1.7989E+21
Fe 58     2.3759E+20
Fe 59     8.0564E+08   3.0416E-11   1.6870E-04   2.1512E+01   1.4526E+02   3.9258E-09   2.6125E-04   4.450E+01 (d)    Fe 59
Co 59     8.4506E+16
Co 60m1   3.6604E+03   4.1217E-14   3.7368E-11   3.4834E-03   4.0374E+00   1.0912E-10   6.8663E-09   1.047E+01 (m)    Co 60m1
Ni 58     5.9997E+17
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Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5610E+04	4.2188E-07	4.1698E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 5.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.11238E+06
He	8.94148E+03
Li	0.00000E+00
Be	0.00000E+00
B	4.22645E-03
C	3.70104E+06
N	2.65812E+17
O	1.44950E-06
Na	1.47231E+16
Mg	1.02022E+05
Al	3.22619E+17
Si	7.52758E+05
S	3.93575E-04
Cl	4.61771E+03
Ar	3.16057E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	7.41499E+03
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	4.39491E+05
Ge	1.84552E+01
As	8.32629E+16
Se	8.01804E+07
Br	6.05099E+14

Kr	8.73116E+05
Rb	1.13142E+16
Sr	1.08310E+06
Y	1.47731E+00
Zr	6.57397E+02
Nb	2.73562E+02
Mo	1.09868E+17
Tc	3.14068E+06
Ru	7.83784E+05
Pd	4.74716E+04
Ag	1.79299E+15
Cd	2.07280E+07
In	5.01239E-06
Sn	7.92929E+05
Sb	1.86661E+16
Te	4.61629E+07
I	6.03046E-04
Xe	3.58718E+05
Cs	3.75765E+04
Ba	1.40818E+17
La	3.30812E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	1.31465E-02
Ta	1.53357E+04
W	3.94515E+15
Re	1.81468E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.7667E-01	1.5940E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	7.9698E+00	7.9698E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							

Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	4.8568E+10	3.6809E-13	4.5833E-05	8.1124E-02	3.9005E+02	1.0542E-08	1.2873E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		3.6812E-13	1.237079E+02	8.1125E-02	3.9005E+02	1.0542E-08	1.2873E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.4827E-01	1.1787E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	5.8933E+00	5.8933E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.11238E+06
He	8.94148E+03
Li	0.00000E+00
Be	0.00000E+00
B	4.22645E-03
C	3.70062E+06
N	2.65812E+17
O	1.58127E-06
Na	1.47231E+16
Mg	1.02606E+05
Al	3.22619E+17
Si	7.52768E+05
S	5.38591E-04
Cl	4.75714E+03
Ar	3.01428E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	8.82854E+03
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	4.39804E+05
Ge	1.85284E+01
As	8.32629E+16
Se	8.09903E+07
Br	6.05099E+14
Kr	8.76858E+05
Rb	1.13142E+16
Sr	1.19942E+06
Y	1.52225E+00
Zr	6.75208E+02
Nb	3.39343E+02
Mo	1.09868E+17
Tc	3.22127E+06
Ru	7.83937E+05
Pd	4.74936E+04
Ag	1.79299E+15
Cd	2.08817E+07
In	0.00000E+00
Sn	8.12905E+05
Sb	1.86661E+16
Te	4.92406E+07
I	6.93971E-04
Xe	4.12168E+05
Cs	2.55591E+04
Ba	1.40818E+17
La	3.30986E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	1.31466E-02
Ta	1.81504E+04
W	3.94515E+15
Re	1.88200E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.944E+03	1.561E+04	4.219E-01	4.170E-03	6.068E-09	1.237082E+02
338.6 (d)	2.028E-08	4.857E+01	3.901E+02	1.054E-02	1.287E-04	3.681E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.561E+04	7.955E-04	4.170E-03	6.068E-09
338.6 (d)	3.901E+02	2.028E-08	1.287E-04	3.681E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.944E+06	7.556E-10	5.254E-05	3.182E+03
338.6 (d)	4.857E+04	4.584E-14	1.313E-06	8.113E-02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.944E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	4.857E+01	2.028E-08	4.584E-14	1.619E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0671E-09	1.237081E+02	3.1819E+03	1.5257E+04	4.1235E-07	4.0527E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.0545E-13	1.237079E+02	2.3236E-02	1.1171E+02	3.0193E-09	3.6871E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0673E-09	1.237081E+02	3.1819E+03	1.5367E+04	4.1533E-07	4.0898E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.8728E-13	1.237079E+02	4.1272E-02	1.9843E+02	5.3630E-09	6.5491E-05

Step : 3

```
Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04


Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04


Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04


Step :   7
    AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :      6.07 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
Al 27     3.2262E+17
 K 39     4.6135E+16
 K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
 K 41     3.3294E+15
Ca 40     5.8480E+16
Ca 42     3.9031E+14
Ca 43     8.1440E+13
Ca 44     1.2584E+15
Ca 46     2.4130E+12
Ca 48     1.1281E+14
Ti 46     5.8301E+16
Ti 47     5.2577E+16
Ti 48     5.2096E+17
Ti 49     3.8231E+16
Ti 50     3.6606E+16
 V 50     4.7693E+14   1.2289E-23   8.3329E+01   9.5324E-12   7.0337E-11   1.9010E-21   3.4479E-16   1.489E+11(My)    V 50
 V 51     1.9029E+17
Cr 50     5.2922E+18
Cr 51     8.0359E+07   1.3648E-13   4.7126E-07   9.4923E-02   2.3272E+01   6.2897E-10   8.8486E-07   2.770E+01 (d)    Cr 51
Cr 52     1.0206E+20
Cr 53     1.1571E+19
Cr 54     2.8806E+18
Cr 55     2.4728E+02   1.4229E-13   4.3606E-11   4.2634E-04   8.0689E-01   2.1808E-11   1.1301E-09   3.540E+00 (m)    Cr 55
Mn 55     8.2737E+20
Mn 56     1.9982E+08   6.0332E-09   8.0809E-05   3.1595E+03   1.4918E+04   4.0319E-07   3.7296E-03   2.579E+00 (h)    Mn 56
Fe 54     4.9638E+21
Fe 55     6.5283E+10   4.9476E-13   6.1607E-05   1.0904E-01   5.2428E+02   1.4170E-08   1.7303E-04   2.735E+00 (y)    Fe 55
Fe 56     7.7852E+22
Fe 57     1.7989E+21
Fe 58     2.3759E+20
Fe 59     8.0564E+08   3.0416E-11   1.6870E-04   2.1512E+01   1.4526E+02   3.9258E-09   2.6125E-04   4.450E+01 (d)    Fe 59
Co 59     8.4506E+16
Co 60m1   3.6604E+03   4.1217E-14   3.7368E-11   3.4834E-03   4.0374E+00   1.0912E-10   6.8663E-09   1.047E+01 (m)    Co 60m1
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Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04 (My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0676E-09 1.237082E+02 3.1820E+03 1.5640E+04 4.2272E-07 4.1800E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 6.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.79778E+06
He	1.04317E+04
Li	0.00000E+00
Be	0.00000E+00
B	4.93085E-03
C	4.31762E+06
N	2.65812E+17
O	1.71304E-06
Na	1.47231E+16
Mg	1.19123E+05
Al	3.22619E+17
Si	8.78219E+05
S	5.50346E-04
Cl	5.41059E+03
Ar	3.65976E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	8.95920E+03
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	5.12792E+05
Ge	2.15433E+01
As	8.32629E+16
Se	9.36787E+07

Br	6.05099E+14
Kr	1.01926E+06
Rb	1.13142E+16
Sr	1.28301E+06
Y	1.73102E+00
Zr	7.69932E+02
Nb	3.69158E+02
Mo	1.09868E+17
Tc	3.67755E+06
Ru	9.14445E+05
Pd	5.53970E+04
Ag	1.79299E+15
Cd	2.42243E+07
In	5.01239E-06
Sn	9.28413E+05
Sb	1.86661E+16
Te	5.43774E+07
I	7.18732E-04
Xe	4.27413E+05
Cs	4.46029E+04
Ba	1.40818E+17
La	3.85976E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	1.53376E-02
Ta	1.84395E+04
W	3.94515E+15
Re	2.12876E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.2806E-01	1.6874E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	8.4369E+00	8.4369E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							

Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.1612E+10	3.9115E-13	4.8705E-05	8.6207E-02	4.1449E+02	1.1202E-08	1.3680E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		3.9118E-13	1.237079E+02	8.6209E-02	4.1449E+02	1.1203E-08	1.3680E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.8889E-01	1.2525E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00

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   15 ( 5.0 -> 6.5 MeV)        0.0000E+00        0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

 0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00  0.0000E+00
 0.0000E+00  0.0000E+00  1.0016E-05  0.0000E+00  0.0000E+00  0.0000E+00
 2.0301E-09  0.0000E+00  0.0000E+00  0.0000E+00  6.2626E+00  6.2626E+00

     AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time :     338.65 (d)


COMPOSITION  :

ELEMENT     ATOMES/cm3

      H    4.79778E+06
     He    1.04317E+04
     Li    0.00000E+00
     Be    0.00000E+00
      B    4.93085E-03
      C    4.31713E+06
      N    2.65812E+17
      O    1.84481E-06
     Na    1.47231E+16
     Mg    1.19708E+05
     Al    3.22619E+17
     Si    8.78230E+05
      S    7.19532E-04
     Cl    5.55002E+03
     Ar    3.51234E+03
      K    4.94701E+16
     Ca    6.03257E+16
     Sc    1.03729E+04
     Ti    7.06679E+17
      V    1.90771E+17
     Cr    1.21799E+20
     Mn    8.27369E+20
     Fe    8.48521E+22
     Co    8.45059E+16
     Ni    8.81316E+17
     Cu    2.26793E+18
     Zn    4.95553E+16
     Ga    5.13105E+05
     Ge    2.16164E+01
     As    8.32629E+16
     Se    9.44887E+07
     Br    6.05099E+14
     Kr    1.02300E+06
     Rb    1.13142E+16
     Sr    1.39933E+06
      Y    1.77596E+00
     Zr    7.87742E+02
     Nb    4.49012E+02
     Mo    1.09868E+17
     Tc    3.75814E+06
     Ru    9.14599E+05
     Pd    5.54226E+04
     Ag    1.79299E+15
     Cd    2.43783E+07
     In    0.00000E+00
     Sn    9.48389E+05
     Sb    1.86661E+16
     Te    5.74551E+07
      I    8.09657E-04
     Xe    4.80863E+05
     Cs    3.34398E+04
     Ba    1.40818E+17
     La    3.86151E+05
     Ce    0.00000E+00
     Pr    0.00000E+00
     Nd    0.00000E+00
     Pm    0.00000E+00
     Sm    0.00000E+00
     Eu    0.00000E+00
     Gd    0.00000E+00
     Tb    0.00000E+00
     Dy    0.00000E+00
     Ho    0.00000E+00
     Er    0.00000E+00
     Tm    0.00000E+00
     Yb    0.00000E+00
     Lu    0.00000E+00
     Hf    1.53377E-02
     Ta    2.12541E+04
      W    3.94515E+15
     Re    2.19607E+06
     Th    0.00000E+00
      U    0.00000E+00
     Np    0.00000E+00
     Pu    0.00000E+00
```

Totals: 8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.948E+03	1.564E+04	4.227E-01	4.180E-03	6.068E-09	1.237082E+02
338.6 (d)	2.155E-08	5.162E+01	4.145E+02	1.120E-02	1.368E-04	3.912E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.564E+04	7.955E-04	4.180E-03	6.068E-09
338.6 (d)	4.145E+02	2.155E-08	1.368E-04	3.912E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.948E+06	7.556E-10	5.264E-05	3.182E+03
338.6 (d)	5.162E+04	4.871E-14	1.395E-06	8.621E-02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.948E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	5.162E+01	2.155E-08	4.871E-14	1.721E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)
AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0671E-09	1.237081E+02	3.1819E+03	1.5257E+04	4.1235E-07	4.0527E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.0545E-13	1.237079E+02	2.3236E-02	1.1171E+02	3.0193E-09	3.6871E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0673E-09	1.237081E+02	3.1819E+03	1.5367E+04	4.1533E-07	4.0898E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.8728E-13	1.237079E+02	4.1272E-02	1.9843E+02	5.3630E-09	6.5491E-05

```
Step :   3

Elapsed Time   :       2.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       3.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :       3.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       4.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :       4.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       5.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :       5.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       6.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :       6.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       6.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8
     AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :       7.07 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
Al 27     3.2262E+17
 K 39     4.6135E+16
 K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
 K 41     3.3294E+15
Ca 40     5.8480E+16
Ca 42     3.9031E+14
Ca 43     8.1440E+13
Ca 44     1.2584E+15
Ca 46     2.4130E+12
Ca 48     1.1281E+14
Ti 46     5.8301E+16
Ti 47     5.2577E+16
Ti 48     5.2096E+17
Ti 49     3.8231E+16
Ti 50     3.6606E+16
 V 50     4.7693E+14   1.2289E-23   8.3329E+01   9.5324E-12   7.0337E-11   1.9010E-21   3.4479E-16   1.489E+11(My)    V 50
 V 51     1.9029E+17
```

Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	6.8271E+10	5.1741E-13	6.4427E-05	1.1403E-01	5.4828E+02	1.4818E-08	1.8095E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0564E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5664E+04	4.2336E-07	4.1879E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 7.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.48318E+06
He	1.19220E+04
Li	0.00000E+00
Be	0.00000E+00
B	5.63526E-03
C	4.93412E+06
N	2.65812E+17
O	1.97659E-06
Na	1.47231E+16
Mg	1.36224E+05
Al	3.22619E+17
Si	1.00368E+06
S	7.33167E-04
Cl	6.20347E+03
Ar	4.15774E+03

K	4.94701E+16
Ca	6.03257E+16
Sc	1.05035E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	5.86093E+05
Ge	2.46314E+01
As	8.32629E+16
Se	1.07177E+08
Br	6.05099E+14
Kr	1.16540E+06
Rb	1.13142E+16
Sr	1.48291E+06
Y	1.98473E+00
Zr	8.82466E+02
Nb	4.79922E+02
Mo	1.09868E+17
Tc	4.21442E+06
Ru	1.04511E+06
Pd	6.33263E+04
Ag	1.79299E+15
Cd	2.77209E+07
In	5.01239E-06
Sn	1.06390E+06
Sb	1.86661E+16
Te	6.25920E+07
I	8.34418E-04
Xe	4.96107E+05
Cs	5.25480E+04
Ba	1.40818E+17
La	4.41141E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	1.75287E-02
Ta	2.15433E+04
W	3.94515E+15
Re	2.44283E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.6795E-01	1.7599E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	8.7995E+00	8.7995E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.3974E+10	4.0906E-13	5.0935E-05	9.0153E-02	4.3347E+02	1.1715E-08	1.4306E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.0909E-13	1.237079E+02	9.0155E-02	4.3347E+02	1.1715E-08	1.4306E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.2042E-01	1.3099E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	6.5493E+00	6.5493E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	5.48318E+06
Be	1.19220E+04
Li	0.00000E+00
Be	0.00000E+00
B	5.63526E-03
C	4.93357E+06
N	2.65812E+17
O	2.10836E-06
Na	1.47231E+16
Mg	1.36809E+05
Al	3.22619E+17
Si	1.00369E+06
S	9.26522E-04
Cl	6.34290E+03
Ar	4.00919E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	1.19172E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	5.86406E+05
Ge	2.47045E+01
As	8.32629E+16
Se	1.07987E+08
Br	6.05099E+14
Kr	1.16914E+06
Rb	1.13142E+16
Sr	1.59923E+06
Y	2.02966E+00
Zr	9.00277E+02
Nb	5.73847E+02
Mo	1.09868E+17
Tc	4.29501E+06
Ru	1.04526E+06
Pd	6.33554E+04
Ag	1.79299E+15
Cd	2.78750E+07
In	0.00000E+00
Sn	1.08387E+06
Sb	1.86661E+16
Te	6.56697E+07
I	9.25343E-04
Xe	5.49557E+05
Cs	4.21851E+04
Ba	1.40818E+17
La	4.41315E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00

Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	1.75288E-02
Ta	2.43579E+04
W	3.94515E+15
Re	2.51015E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.951E+03	1.566E+04	4.234E-01	4.188E-03	6.068E-09	1.237082E+02
338.6 (d)	2.254E-08	5.398E+01	4.335E+02	1.172E-02	1.431E-04	4.091E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.566E+04	7.955E-04	4.188E-03	6.068E-09
338.6 (d)	4.335E+02	2.254E-08	1.431E-04	4.091E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.951E+06	7.556E-10	5.272E-05	3.182E+03
338.6 (d)	5.398E+04	5.094E-14	1.459E-06	9.016E-02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.951E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	5.398E+01	2.254E-08	5.094E-14	1.799E-01

			Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)
AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0671E-09	1.237081E+02	3.1819E+03	1.5257E+04	4.1235E-07	4.0527E-03

```
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05

Step :   2

Elapsed Time   :       1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05

Step :   3

Elapsed Time   :       2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :       3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :       4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :       5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :       6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :       7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       7.99 (y)
```

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.0909E-13	1.237079E+02	9.0155E-02	4.3347E+02	1.1715E-08	1.4306E-04

Step : 9
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 8.07 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.0591E+10	5.3499E-13	6.6616E-05	1.1791E-01	5.6691E+02	1.5322E-08	1.8710E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0564E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								

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 W184      1.2088E+15
 W186      1.1216E+15
here are   81 Nuclides.

Totals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
     AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time  :      8.07 (y)          Cooling Time 0.


COMPOSITION  :

ELEMENT     ATOMES/cm3

      H    6.16857E+06
     He    1.34122E+04
     Li    0.00000E+00
     Be    0.00000E+00
      B    6.33967E-03
      C    5.55055E+06
      N    2.65812E+17
      O    2.24013E-06
     Na    1.47231E+16
     Mg    1.53325E+05
     Al    3.22619E+17
     Si    1.12914E+06
      S    9.42038E-04
     Cl    6.99635E+03
     Ar    4.65450E+03
      K    4.94701E+16
     Ca    6.03257E+16
     Sc    1.20479E+04
     Ti    7.06679E+17
      V    1.90771E+17
     Cr    1.21799E+20
     Mn    8.27369E+20
     Fe    8.48521E+22
     Co    8.45059E+16
     Ni    8.81316E+17
     Cu    2.26793E+18
     Zn    4.95553E+16
     Ga    6.59394E+05
     Ge    2.77194E+01
     As    8.32629E+16
     Se    1.20676E+08
     Br    6.05099E+14
     Kr    1.31154E+06
     Rb    1.13142E+16
     Sr    1.68281E+06
      Y    2.23843E+00
     Zr    9.95001E+02
     Nb    6.05852E+02
     Mo    1.09868E+17
     Tc    4.75129E+06
     Ru    1.17577E+06
     Pd    7.12594E+04
     Ag    1.79299E+15
     Cd    3.12176E+07
     In    5.01239E-06
     Sn    1.19938E+06
     Sb    1.86661E+16
     Te    7.08065E+07
      I    9.50104E-04
     Xe    5.64802E+05
     Cs    6.13536E+04
     Ba    1.40818E+17
     La    4.96305E+05
     Ce    0.00000E+00
     Pr    0.00000E+00
     Nd    0.00000E+00
     Pm    0.00000E+00
     Sm    0.00000E+00
     Eu    0.00000E+00
     Gd    0.00000E+00
     Tb    0.00000E+00
     Dy    0.00000E+00
     Ho    0.00000E+00
     Er    0.00000E+00
     Tm    0.00000E+00
     Yb    0.00000E+00
     Lu    0.00000E+00
     Hf    1.97198E-02
     Ta    2.46470E+04
      W    3.94515E+15
     Re    2.75691E+06
     Th    0.00000E+00
      U    0.00000E+00
     Np    0.00000E+00
     Pu    0.00000E+00

Production of  H  :      0. appm/y.
```

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.9891E-01	1.8162E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	9.0810E+00	9.0810E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.5808E+10	4.2296E-13	5.2666E-05	9.3217E-02	4.4819E+02	1.2113E-08	1.4792E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.2299E-13	1.237079E+02	9.3219E-02	4.4820E+02	1.2113E-08	1.4792E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.4490E-01	1.3544E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	6.7719E+00	6.7719E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	6.16857E+06
He	1.34122E+04
Li	0.00000E+00
Be	0.00000E+00
B	6.33967E-03
C	5.54993E+06
N	2.65812E+17
O	2.37190E-06
Na	1.47231E+16
Mg	1.53910E+05
Al	3.22619E+17
Si	1.12915E+06
S	1.15956E-03
Cl	7.13578E+03
Ar	4.50483E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	1.34615E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16

Ga	6.59707E+05
Ge	2.77926E+01
As	8.32629E+16
Se	1.21485E+08
Br	6.05099E+14
Kr	1.31528E+06
Rb	1.13142E+16
Sr	1.79913E+06
Y	2.28337E+00
Zr	1.01281E+03
Nb	7.13844E+02
Mo	1.09868E+17
Tc	4.83187E+06
Ru	1.17593E+06
Pd	7.12920E+04
Ag	1.79299E+15
Cd	3.13717E+07
In	0.00000E+00
Sn	1.21936E+06
Sb	1.86661E+16
Te	7.38842E+07
I	1.04103E-03
Xe	6.18252E+05
Cs	5.17402E+04
Ba	1.40818E+17
La	4.96479E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	1.97200E-02
Ta	2.74617E+04
W	3.94515E+15
Re	2.82423E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.953E+03	1.568E+04	4.239E-01	4.194E-03	6.068E-09	1.237082E+02
338.6 (d)	2.330E-08	5.582E+01	4.482E+02	1.211E-02	1.479E-04	4.230E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.568E+04	7.955E-04	4.194E-03	6.068E-09
338.6 (d)	4.482E+02	2.330E-08	1.479E-04	4.230E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.953E+06	7.556E-10	5.279E-05	3.182E+03
338.6 (d)	5.582E+04	5.268E-14	1.509E-06	9.322E-02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.953E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	5.582E+01	2.330E-08	5.268E-14	1.861E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	

```
Step    4 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      3.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      4.00 (y)

Step    5 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      4.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      5.00 (y)

Step    6 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      5.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.00 (y)

Step    7 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      6.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.99 (y)

Step    8 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      7.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      7.99 (y)

Step    9 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      8.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      8.99 (y)

Step   10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      9.07 (y)        Intervals :  2

Cooling Times (s)  :

   2.9259E+07

    338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04


Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04
```

Step : 6

Elapsed Time : 5.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5610E+04	4.2188E-07	4.1698E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.6812E-13	1.237079E+02	8.1125E-02	3.9005E+02	1.0542E-08	1.2873E-04

Step : 7

Elapsed Time : 6.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5640E+04	4.2272E-07	4.1800E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.9118E-13	1.237079E+02	8.6209E-02	4.1449E+02	1.1203E-08	1.3680E-04

Step : 8

Elapsed Time : 7.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5664E+04	4.2336E-07	4.1879E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 7.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.0909E-13	1.237079E+02	9.0155E-02	4.3347E+02	1.1715E-08	1.4306E-04

Step : 9

Elapsed Time : 8.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5683E+04	4.2387E-07	4.1941E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 8.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.2299E-13	1.237079E+02	9.3219E-02	4.4820E+02	1.2113E-08	1.4792E-04

Step : 10
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 9.07 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.2391E+10	5.4864E-13	6.8315E-05	1.2092E-01	5.8138E+02	1.5713E-08	1.9187E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0564E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59

Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0677E-09 1.237082E+02 3.1820E+03 1.5698E+04 4.2426E-07 4.1989E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 9.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	6.85397E+06
He	1.49025E+04
Li	0.00000E+00
Be	0.00000E+00
B	7.04408E-03
C	6.16691E+06
N	2.65812E+17
O	2.50368E-06
Na	1.47231E+16
Mg	1.70426E+05
Al	3.22619E+17
Si	1.25460E+06
S	1.17696E-03
Cl	7.78922E+03
Ar	5.15005E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	1.35922E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	7.32694E+05
Ge	3.08075E+01

As	8.32629E+16
Se	1.34174E+08
Br	6.05099E+14
Kr	1.45768E+06
Rb	1.13142E+16
Sr	1.88272E+06
Y	2.49214E+00
Zr	1.10754E+03
Nb	7.46944E+02
Mo	1.09868E+17
Tc	5.28816E+06
Ru	1.30644E+06
Pd	7.91962E+04
Ag	1.79299E+15
Cd	3.47143E+07
In	5.01239E-06
Sn	1.33487E+06
Sb	1.86661E+16
Te	7.90211E+07
I	1.06579E-03
Xe	6.33496E+05
Cs	7.09651E+04
Ba	1.40818E+17
La	5.51469E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	2.19109E-02
Ta	2.77508E+04
W	3.94515E+15
Re	3.07099E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0229E+00	1.8599E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	9.2995E+00	9.2995E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
N 14	2.6484E+17						
N 15	9.7287E+14						
Na 23	1.4723E+16						
Al 27	3.2262E+17						
K 39	4.6135E+16						

K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.7232E+10	4.3375E-13	5.4009E-05	9.5595E-02	4.5963E+02	1.2422E-08	1.5169E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.3378E-13	1.237079E+02	9.5597E-02	4.5963E+02	1.2422E-08	1.5170E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.6391E-01	1.3889E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00

13 (3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14 (4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15 (5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	6.9446E+00	6.9446E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	6.85397E+06
He	1.49025E+04
Li	0.00000E+00
Be	0.00000E+00
B	7.04408E-03
C	6.16622E+06
N	2.65812E+17
O	2.63545E-06
Na	1.47231E+16
Mg	1.71011E+05
Al	3.22619E+17
Si	1.25461E+06
S	1.41865E-03
Cl	7.92865E+03
Ar	4.99925E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	1.50059E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	7.33007E+05
Ge	3.08806E+01
As	8.32629E+16
Se	1.34984E+08
Br	6.05099E+14
Kr	1.46142E+06
Rb	1.13142E+16
Sr	1.99904E+06
Y	2.53708E+00
Zr	1.12535E+03
Nb	8.69000E+02
Mo	1.09868E+17
Tc	5.36874E+06
Ru	1.30660E+06
Pd	7.92324E+04
Ag	1.79299E+15
Cd	3.48684E+07
In	0.00000E+00
Sn	1.35484E+06
Sb	1.86661E+16
Te	8.20988E+07
I	1.15671E-03
Xe	6.86946E+05
Cs	6.20536E+04
Ba	1.40818E+17
La	5.51644E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	2.19111E-02
Ta	3.05655E+04
W	3.94515E+15
Re	3.13830E+06
Th	0.00000E+00
U	0.00000E+00

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     Np     0.00000E+00
     Pu     0.00000E+00
 Totals:    8.58066E+22

     AJBRF Reactor                                                          AJBRF Soil (Side) Flux
 AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

        Time              D(Sv/h)     Bq/g        Bq/cm3      Ci/m3       ALI/cm3     WATT/cm3   JOULE/cm3
        zero              7.955E-04   1.955E+03   1.570E+04   4.243E-01   4.199E-03   6.068E-09  1.237082E+02
      338.6 (d)           2.390E-08   5.724E+01   4.596E+02   1.242E-02   1.517E-04   4.338E-13  1.237079E+02

     AJBRF Reactor                                                          AJBRF Soil (Side) Flux
 AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

 For a volume of 1.0000E+00(cm3) of  Rebar          :

        Time          Becquerel     Sv/h        ALI         Watt
        zero          1.570E+04   7.955E-04   4.199E-03   6.068E-09
      338.6 (d)       4.596E+02   2.390E-08   1.517E-04   4.338E-13

     AJBRF Reactor                                                          AJBRF Soil (Side) Flux
 AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

        Time          Bq/Kg       KW/Kg       Ci/Kg       MeV/g*s
        zero          1.955E+06   7.556E-10   5.283E-05   3.182E+03
      338.6 (d)       5.724E+04   5.402E-14   1.547E-06   9.560E-02

     AJBRF Reactor                                                          AJBRF Soil (Side) Flux
 AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

        Time          Bq/g        Sv/h        W/g         Cl Index
        zero          1.955E+03   7.955E-04   7.556E-10   3.319E+03
      338.6 (d)       5.724E+01   2.390E-08   5.402E-14   1.908E-01


                                                                  Elapsed Time.

      Step    1 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    26.35 (d)      Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)   365.00 (d)

      Step    2 : Activation of  2.27682E+06(s), i.e.    26.35 (d)     1.07 (y)      Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)     2.00 (y)

      Step    3 : Activation of  2.27682E+06(s), i.e.    26.35 (d)     2.07 (y)      Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)     3.00 (y)

      Step    4 : Activation of  2.27682E+06(s), i.e.    26.35 (d)     3.07 (y)      Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)     4.00 (y)

      Step    5 : Activation of  2.27682E+06(s), i.e.    26.35 (d)     4.07 (y)      Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)     5.00 (y)

      Step    6 : Activation of  2.27682E+06(s), i.e.    26.35 (d)     5.07 (y)      Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)     6.00 (y)

      Step    7 : Activation of  2.27682E+06(s), i.e.    26.35 (d)     6.07 (y)      Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)     6.99 (y)

      Step    8 : Activation of  2.27682E+06(s), i.e.    26.35 (d)     7.07 (y)      Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)     7.99 (y)

      Step    9 : Activation of  2.27682E+06(s), i.e.    26.35 (d)     8.07 (y)      Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)     8.99 (y)

      Step   10 : Activation of  2.27682E+06(s), i.e.    26.35 (d)     9.07 (y)      Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)     9.99 (y)

      Step   11 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    10.06 (y)      Intervals :  2

 Cooling Times (s)  :

    2.9259E+07

     338.6 (d)

 AJBRF Reactor


 Step :   1

 Elapsed Time   :     26.35 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :    365.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05
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Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
```

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5683E+04	4.2387E-07	4.1941E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 8.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.2299E-13	1.237079E+02	9.3219E-02	4.4820E+02	1.2113E-08	1.4792E-04

Step : 10

Elapsed Time : 9.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0677E-09	1.237082E+02	3.1820E+03	1.5698E+04	4.2426E-07	4.1989E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 9.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.3378E-13	1.237079E+02	9.5597E-02	4.5963E+02	1.2422E-08	1.5170E-04

Step : 11
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 10.06 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.3789E+10	5.5923E-13	6.9634E-05	1.2325E-01	5.9260E+02	1.6016E-08	1.9558E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0564E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60ml	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60ml
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								

Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals:	8.5807E+22	6.0677E-09	1.237082E+02	3.1820E+03	1.5709E+04	4.2456E-07	4.2026E-03

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 10.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	7.53937E+06
He	1.63927E+04
Li	0.00000E+00
Be	0.00000E+00
B	7.74848E-03
C	6.78319E+06
N	2.65812E+17
O	2.76722E-06
Na	1.47231E+16
Mg	1.87527E+05
Al	3.22619E+17
Si	1.38006E+06
S	1.43793E-03
Cl	8.58210E+03
Ar	5.64439E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	1.51365E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	8.05995E+05
Ge	3.38955E+01
As	8.32629E+16
Se	1.47672E+08
Br	6.05099E+14
Kr	1.60382E+06
Rb	1.13142E+16
Sr	2.08262E+06
Y	2.74585E+00
Zr	1.22007E+03
Nb	9.03194E+02
Mo	1.09868E+17
Tc	5.82503E+06
Ru	1.43710E+06
Pd	8.71369E+04
Ag	1.79299E+15
Cd	3.82110E+07
In	5.01239E-06
Sn	1.47035E+06
Sb	1.86661E+16
Te	8.72356E+07
I	1.18148E-03
Xe	7.02191E+05
Cs	8.13314E+04
Ba	1.40818E+17
La	6.06634E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00

Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	2.41020E-02
Ta	3.08546E+04
W	3.94515E+15
Re	3.38506E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0416E+00	1.8938E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	9.4691E+00	9.4691E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.8337E+10	4.4212E-13	5.5052E-05	9.7440E-02	4.6850E+02	1.2662E-08	1.5462E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							

Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.4215E-13	1.237079E+02	9.7442E-02	4.6850E+02	1.2662E-08	1.5462E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.7866E-01	1.4157E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.0787E+00	7.0787E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	7.53937E+06
He	1.63927E+04
Li	0.00000E+00
Be	0.00000E+00
B	7.74848E-03
C	6.78243E+06
N	2.65812E+17
O	2.89899E-06

Na	1.47231E+16
Mg	1.88112E+05
Al	3.22619E+17
Si	1.38007E+06
S	1.70379E-03
Cl	8.72153E+03
Ar	5.49247E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	1.65502E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	8.06308E+05
Ge	3.39687E+01
As	8.32629E+16
Se	1.48482E+08
Br	6.05099E+14
Kr	1.60756E+06
Rb	1.13142E+16
Sr	2.19894E+06
Y	2.79079E+00
Zr	1.23788E+03
Nb	1.03931E+03
Mo	1.09868E+17
Tc	5.90560E+06
Ru	1.43727E+06
Pd	8.71765E+04
Ag	1.79299E+15
Cd	3.83651E+07
In	0.00000E+00
Sn	1.49033E+06
Sb	1.86661E+16
Te	9.03133E+07
I	1.27240E-03
Xe	7.55641E+05
Cs	7.30774E+04
Ba	1.40818E+17
La	6.06808E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	2.41022E-02
Ta	3.36692E+04
W	3.94515E+15
Re	3.45238E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.956E+03	1.571E+04	4.246E-01	4.203E-03	6.068E-09	1.237082E+02
338.6 (d)	2.436E-08	5.834E+01	4.685E+02	1.266E-02	1.546E-04	4.422E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.571E+04	7.955E-04	4.203E-03	6.068E-09
338.6 (d)	4.685E+02	2.436E-08	1.546E-04	4.422E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.956E+06	7.556E-10	5.287E-05	3.182E+03
338.6 (d)	5.834E+04	5.506E-14	1.577E-06	9.744E-02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.956E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	5.834E+01	2.436E-08	5.506E-14	1.945E-01

```
                                                                    Elapsed Time.

Step    1 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     26.35 (d)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    365.00 (d)

Step    2 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      1.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      2.00 (y)

Step    3 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      2.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      3.00 (y)

Step    4 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      3.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      4.00 (y)

Step    5 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      4.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      5.00 (y)

Step    6 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      5.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.00 (y)

Step    7 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      6.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.99 (y)

Step    8 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      7.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      7.99 (y)

Step    9 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      8.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      8.99 (y)

Step   10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      9.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      9.99 (y)

Step   11 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     10.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     10.99 (y)

Step   12 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     11.06 (y)        Intervals :  2

Cooling Times (s)  :

   2.9259E+07

    338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :      26.35 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     365.00 (d).
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :       1.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       2.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :       2.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       3.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05
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Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
```

otals:	8.5807E+22	6.0677E-09	1.237082E+02	3.1820E+03	1.5709E+04	4.2456E-07	4.2026E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 10.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.4215E-13	1.237079E+02	9.7442E-02	4.6850E+02	1.2662E-08	1.5462E-04

Step : 12
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 11.06 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03 (My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11 (My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.4874E+10	5.6746E-13	7.0658E-05	1.2506E-01	6.0132E+02	1.6252E-08	1.9845E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0564E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04 (My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								

Ba137	1.5817E+16
Ba138	1.0096E+17
W180	4.7342E+12
W182	1.0455E+15
W183	5.6455E+14
W184	1.2088E+15
W186	1.1216E+15

here are 81 Nuclides.

Totals: 8.5807E+22 6.0677E-09 1.237082E+02 3.1820E+03 1.5717E+04 4.2480E-07 4.2054E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 11.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	8.22476E+06
He	1.78830E+04
Li	0.00000E+00
Be	0.00000E+00
B	8.45289E-03
C	7.39939E+06
N	2.65812E+17
O	3.03076E-06
Na	1.47231E+16
Mg	2.04628E+05
Al	3.22619E+17
Si	1.50553E+06
S	1.72495E-03
Cl	9.37498E+03
Ar	6.13752E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	1.66809E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	8.79296E+05
Ge	3.69836E+01
As	8.32629E+16
Se	1.61171E+08
Br	6.05099E+14
Kr	1.74996E+06
Rb	1.13142E+16
Sr	2.28253E+06
Y	2.99956E+00
Zr	1.33260E+03
Nb	1.07460E+03
Mo	1.09868E+17
Tc	6.36189E+06
Ru	1.56777E+06
Pd	9.50813E+04
Ag	1.79299E+15
Cd	4.17077E+07
In	5.01239E-06
Sn	1.60583E+06
Sb	1.86661E+16
Te	9.54502E+07
I	1.29716E-03
Xe	7.70886E+05
Cs	9.24046E+04
Ba	1.40818E+17
La	6.61798E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	2.62931E-02
Ta	3.39583E+04
W	3.94515E+15
Re	3.69914E+06
Th	0.00000E+00
U	0.00000E+00

Np 0.00000E+00
Pu 0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0561E+00	1.9202E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	9.6008E+00	9.6008E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.9195E+10	4.4862E-13	5.5861E-05	9.8873E-02	4.7539E+02	1.2848E-08	1.5690E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							

Mo 94 1.0163E+16

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.4865E-13	1.237079E+02	9.8875E-02	4.7539E+02	1.2848E-08	1.5690E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.9011E-01	1.4366E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.1828E+00	7.1828E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	8.22476E+06
He	1.78830E+04
Li	0.00000E+00
Be	0.00000E+00
B	8.45289E-03
C	7.39856E+06
N	2.65812E+17
O	3.16254E-06
Na	1.47231E+16
Mg	2.05213E+05
Al	3.22619E+17
Si	1.50554E+06
S	2.01498E-03
Cl	9.51440E+03
Ar	5.98449E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	1.80946E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20

Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	8.79609E+05
Ge	3.70567E+01
As	8.32629E+16
Se	1.61981E+08
Br	6.05099E+14
Kr	1.75370E+06
Rb	1.13142E+16
Sr	2.39884E+06
Y	3.04450E+00
Zr	1.35042E+03
Nb	1.22477E+03
Mo	1.09868E+17
Tc	6.44247E+06
Ru	1.56794E+06
Pd	9.51245E+04
Ag	1.79299E+15
Cd	4.18618E+07
In	0.00000E+00
Sn	1.62581E+06
Sb	1.86661E+16
Te	9.85279E+07
I	1.38809E-03
Xe	8.24336E+05
Cs	8.47664E+04
Ba	1.40818E+17
La	6.61972E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	2.62933E-02
Ta	3.67730E+04
W	3.94515E+15
Re	3.76645E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.957E+03	1.572E+04	4.248E-01	4.205E-03	6.068E-09	1.237082E+02
338.6 (d)	2.472E-08	5.920E+01	4.754E+02	1.285E-02	1.569E-04	4.487E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.572E+04	7.955E-04	4.205E-03	6.068E-09
338.6 (d)	4.754E+02	2.472E-08	1.569E-04	4.487E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.957E+06	7.556E-10	5.290E-05	3.182E+03
338.6 (d)	5.920E+04	5.587E-14	1.600E-06	9.888E-02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.957E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	5.920E+01	2.472E-08	5.587E-14	1.973E-01

			Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	

```
Step    2 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     1.07 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     2.00 (y)

Step    3 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     2.07 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     3.00 (y)

Step    4 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     3.07 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     4.00 (y)

Step    5 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     4.07 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     5.00 (y)

Step    6 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     5.07 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     6.00 (y)

Step    7 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     6.07 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     6.99 (y)

Step    8 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     7.07 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     7.99 (y)

Step    9 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     8.07 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     8.99 (y)

Step   10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     9.07 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     9.99 (y)

Step   11 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    10.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    10.99 (y)

Step   12 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    11.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    11.99 (y)

Step   13 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    12.06 (y)      Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05

Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04
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Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12
```

Elapsed Time : 11.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0677E-09	1.237082E+02	3.1820E+03	1.5717E+04	4.2480E-07	4.2054E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 11.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.4865E-13	1.237079E+02	9.8875E-02	4.7539E+02	1.2848E-08	1.5690E-04

Step : 13
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 12.06 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.5717E+10	5.7384E-13	7.1453E-05	1.2647E-01	6.0808E+02	1.6435E-08	2.0069E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0564E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								

Ba135	9.2828E+15
Ba136	1.1060E+16
Ba137	1.5817E+16
Ba138	1.0096E+17
W180	4.7342E+12
W182	1.0455E+15
W183	5.6455E+14
W184	1.2088E+15
W186	1.1216E+15

here are 81 Nuclides.

Totals: 8.5807E+22 6.0677E-09 1.237082E+02 3.1820E+03 1.5724E+04 4.2498E-07 4.2077E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 12.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	8.91016E+06
He	1.93732E+04
Li	0.00000E+00
Be	0.00000E+00
B	9.15730E-03
C	8.01553E+06
N	2.65812E+17
O	3.29431E-06
Na	1.47231E+16
Mg	2.21730E+05
Al	3.22619E+17
Si	1.63099E+06
S	2.03802E-03
Cl	1.01678E+04
Ar	6.62945E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	1.82252E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	9.52597E+05
Ge	4.00717E+01
As	8.32629E+16
Se	1.74669E+08
Br	6.05099E+14
Kr	1.89610E+06
Rb	1.13142E+16
Sr	2.48243E+06
Y	3.25327E+00
Zr	1.44514E+03
Nb	1.26116E+03
Mo	1.09868E+17
Tc	6.89875E+06
Ru	1.69845E+06
Pd	1.03030E+05
Ag	1.79299E+15
Cd	4.52044E+07
In	5.01239E-06
Sn	1.74132E+06
Sb	1.86661E+16
Te	1.03665E+08
I	1.41285E-03
Xe	8.39580E+05
Cs	1.04140E+05
Ba	1.40818E+17
La	7.16963E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	2.84842E-02
Ta	3.70621E+04
W	3.94515E+15
Re	4.01321E+06

Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0673E+00	1.9406E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	9.7030E+00	9.7030E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.9861E+10	4.5367E-13	5.6490E-05	9.9986E-02	4.8074E+02	1.2993E-08	1.5866E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							

Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.5370E-13	1.237079E+02	9.9988E-02	4.8074E+02	1.2993E-08	1.5866E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.9900E-01	1.4527E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.2636E+00	7.2636E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	8.91016E+06
He	1.93732E+04
Li	0.00000E+00
Be	0.00000E+00
B	9.15730E-03
C	8.01463E+06
N	2.65812E+17
O	3.42608E-06
Na	1.47231E+16
Mg	2.22314E+05
Al	3.22619E+17
Si	1.63100E+06
S	2.35222E-03
Cl	1.03073E+04
Ar	6.47530E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	1.96389E+04
Ti	7.06679E+17
V	1.90771E+17

Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	9.52910E+05
Ge	4.01448E+01
As	8.32629E+16
Se	1.75479E+08
Br	6.05099E+14
Kr	1.89984E+06
Rb	1.13142E+16
Sr	2.59875E+06
Y	3.29820E+00
Zr	1.46295E+03
Nb	1.42539E+03
Mo	1.09868E+17
Tc	6.97933E+06
Ru	1.69861E+06
Pd	1.03076E+05
Ag	1.79299E+15
Cd	4.53586E+07
In	0.00000E+00
Sn	1.76129E+06
Sb	1.86661E+16
Te	1.06742E+08
I	1.50377E-03
Xe	8.93030E+05
Cs	9.70785E+04
Ba	1.40818E+17
La	7.17137E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	2.84844E-02
Ta	3.98768E+04
W	3.94515E+15
Re	4.08053E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.958E+03	1.572E+04	4.250E-01	4.208E-03	6.068E-09	1.237082E+02
338.6 (d)	2.500E-08	5.987E+01	4.807E+02	1.299E-02	1.587E-04	4.537E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.572E+04	7.955E-04	4.208E-03	6.068E-09
338.6 (d)	4.807E+02	2.500E-08	1.587E-04	4.537E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.958E+06	7.556E-10	5.292E-05	3.182E+03
338.6 (d)	5.987E+04	5.650E-14	1.618E-06	9.999E-02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.958E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	5.987E+01	2.500E-08	5.650E-14	1.996E-01

Elapsed Time.

Step 1 : Activation of 2.27682E+06(s), i.e. 26.35 (d) 26.35 (d) Intervals : 2

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                Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)    365.00 (d)

Step    2 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      1.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      2.00 (y)

Step    3 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      2.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      3.00 (y)

Step    4 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      3.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      4.00 (y)

Step    5 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      4.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      5.00 (y)

Step    6 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      5.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      6.00 (y)

Step    7 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      6.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      6.99 (y)

Step    8 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      7.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      7.99 (y)

Step    9 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      8.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      8.99 (y)

Step   10 : Activation of  2.27682E+06(s), i.e.      26.35 (d)      9.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)      9.99 (y)

Step   11 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     10.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     10.99 (y)

Step   12 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     11.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     11.99 (y)

Step   13 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     12.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     12.99 (y)

Step   14 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     13.06 (y)        Intervals :  2

Cooling Times (s)  :

  2.9259E+07

  338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :      26.35 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     365.00 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05

Step :   2

Elapsed Time   :       1.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       2.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05

Step :   3

Elapsed Time   :       2.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       3.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :       3.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
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        Production of He  :      0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
          N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
          N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
          N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
          N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14
    AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :     13.06 (y)          Cooling Time 0.

Nuclide     N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
Al 27     3.2262E+17
 K 39     4.6135E+16
 K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
 K 41     3.3294E+15
Ca 40     5.8480E+16
Ca 42     3.9031E+14
Ca 43     8.1440E+13
Ca 44     1.2584E+15
Ca 46     2.4130E+12
Ca 48     1.1281E+14
Ti 46     5.8301E+16
Ti 47     5.2577E+16
Ti 48     5.2096E+17
Ti 49     3.8231E+16
Ti 50     3.6606E+16
 V 50     4.7693E+14   1.2289E-23   8.3329E+01   9.5324E-12   7.0337E-11   1.9010E-21   3.4479E-16   1.489E+11(My)    V 50
 V 51     1.9029E+17
Cr 50     5.2922E+18
Cr 51     8.0359E+07   1.3648E-13   4.7126E-07   9.4923E-02   2.3272E+01   6.2897E-10   8.8486E-07   2.770E+01 (d)    Cr 51
Cr 52     1.0206E+20
Cr 53     1.1571E+19
Cr 54     2.8806E+18
Cr 55     2.4728E+02   1.4229E-13   4.3606E-11   4.2634E-04   8.0689E-01   2.1808E-11   1.1301E-09   3.540E+00 (m)    Cr 55
Mn 55     8.2737E+20
Mn 56     1.9982E+08   6.0332E-09   8.0809E-05   3.1595E+03   1.4918E+04   4.0319E-07   3.7296E-03   2.579E+00 (h)    Mn 56
Fe 54     4.9638E+21
Fe 55     7.6371E+10   5.7880E-13   7.2070E-05   1.2756E-01   6.1333E+02   1.6577E-08   2.0242E-04   2.735E+00 (y)    Fe 55
Fe 56     7.7852E+22
Fe 57     1.7989E+21
Fe 58     2.3759E+20
Fe 59     8.0564E+08   3.0416E-11   1.6870E-04   2.1512E+01   1.4526E+02   3.9258E-09   2.6125E-04   4.450E+01 (d)    Fe 59
Co 59     8.4506E+16
Co 60m1   3.6604E+03   4.1217E-14   3.7368E-11   3.4834E-03   4.0374E+00   1.0912E-10   6.8663E-09   1.047E+01 (m)    Co 60m1
Ni 58     5.9997E+17
Ni 60     2.3111E+17
Ni 61     1.0047E+16
Ni 62     3.2027E+16
Ni 64     8.1610E+15
Cu 63     1.5687E+18
Cu 64     8.2059E+05   6.3030E-13   4.1582E-08   2.9518E-01   1.2438E+01   3.3618E-10   1.4932E-06   1.270E+01 (h)    Cu 64
Cu 65     6.9920E+17
Cu 66     1.0492E+03   4.3878E-13   1.9372E-10   2.4227E-02   2.3765E+00   6.4231E-11   3.8025E-08   5.100E+00 (m)    Cu 66
Zn 64     2.4084E+16
Zn 66     1.3826E+16
Zn 67     2.0318E+15
Zn 68     9.3164E+15
    AJBRF Reactor

Nuclide     N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

Zn 70     2.9733E+14
As 75     8.3263E+16
As 76     8.0992E+05   1.4176E-12   1.9380E-07   3.1969E-01   5.9245E+00   1.6012E-10   9.4793E-06   1.097E+00 (d)    As 76
Br 79     3.0672E+14
Br 81     2.9837E+14
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Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals:	8.5807E+22	6.0677E-09	1.237082E+02	3.1820E+03	1.5730E+04	4.2512E-07	4.2094E-03

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 13.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	9.59556E+06
He	2.08634E+04
Li	0.00000E+00
Be	0.00000E+00
B	9.86171E-03
C	8.63158E+06
N	2.65812E+17
O	3.55785E-06
Na	1.47231E+16
Mg	2.38831E+05
Al	3.22619E+17
Si	1.75645E+06
S	2.37714E-03
Cl	1.09607E+04
Ar	7.12017E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	1.97696E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.02590E+06
Ge	4.31597E+01
As	8.32629E+16
Se	1.88167E+08
Br	6.05099E+14
Kr	2.04224E+06
Rb	1.13142E+16
Sr	2.68233E+06
Y	3.50698E+00
Zr	1.55767E+03
Nb	1.46286E+03
Mo	1.09868E+17
Tc	7.43561E+06
Ru	1.82912E+06
Pd	1.10982E+05
Ag	1.79299E+15
Cd	4.87011E+07
In	5.01239E-06
Sn	1.87680E+06
Sb	1.86661E+16
Te	1.11879E+08
I	1.52853E-03
Xe	9.08275E+05
Cs	1.16496E+05
Ba	1.40818E+17
La	7.72127E+05

Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	3.06753E-02
Ta	4.01659E+04
W	3.94515E+15
Re	4.32729E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0761E+00	1.9565E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	9.7823E+00	9.7823E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	6.0378E+10	4.5759E-13	5.6978E-05	1.0085E-01	4.8489E+02	1.3105E-08	1.6003E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							

Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.5762E-13	1.237079E+02	1.0085E-01	4.8489E+02	1.3105E-08	1.6003E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.0590E-01	1.4653E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.3263E+00	7.3263E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	9.59556E+06
He	2.08634E+04

Li	0.00000E+00
Be	0.00000E+00
B	9.86171E-03
C	8.63061E+06
N	2.65812E+17
O	3.68963E-06
Na	1.47231E+16
Mg	2.39415E+05
Al	3.22619E+17
Si	1.75646E+06
S	2.71551E-03
Cl	1.11001E+04
Ar	6.96492E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	2.11833E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.02621E+06
Ge	4.32328E+01
As	8.32629E+16
Se	1.88977E+08
Br	6.05099E+14
Kr	2.04598E+06
Rb	1.13142E+16
Sr	2.79865E+06
Y	3.55191E+00
Zr	1.57548E+03
Nb	1.64114E+03
Mo	1.09868E+17
Tc	7.51619E+06
Ru	1.82928E+06
Pd	1.11032E+05
Ag	1.79299E+15
Cd	4.88553E+07
In	0.00000E+00
Sn	1.89678E+06
Sb	1.86661E+16
Te	1.14957E+08
I	1.61946E-03
Xe	9.61725E+05
Cs	1.09974E+05
Ba	1.40818E+17
La	7.72301E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	3.06755E-02
Ta	4.29805E+04
W	3.94515E+15
Re	4.39461E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.959E+03	1.573E+04	4.251E-01	4.209E-03	6.068E-09	1.237082E+02
338.6 (d)	2.521E-08	6.039E+01	4.849E+02	1.311E-02	1.600E-04	4.576E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.573E+04	7.955E-04	4.209E-03	6.068E-09
338.6 (d)	4.849E+02	2.521E-08	1.600E-04	4.576E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s

zero	1.959E+06	7.556E-10	5.294E-05	3.182E+03
338.6 (d)	6.039E+04	5.699E-14	1.632E-06	1.009E-01

AJBRF Reactor AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.959E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	6.039E+01	2.521E-08	5.699E-14	2.013E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2

Cooling Times (s) :

2.9259E+07

338.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0671E-09	1.237081E+02	3.1819E+03	1.5257E+04	4.1235E-07	4.0527E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.0545E-13	1.237079E+02	2.3236E-02	1.1171E+02	3.0193E-09	3.6871E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0673E-09	1.237081E+02	3.1819E+03	1.5367E+04	4.1533E-07	4.0898E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.8728E-13	1.237079E+02	4.1272E-02	1.9843E+02	5.3630E-09	6.5491E-05

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Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10
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Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15
     AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :     14.06 (y)          Cooling Time 0.

Nuclide     N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
Al 27     3.2262E+17
 K 39     4.6135E+16
 K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
 K 41     3.3294E+15
Ca 40     5.8480E+16
Ca 42     3.9031E+14
Ca 43     8.1440E+13
Ca 44     1.2584E+15
Ca 46     2.4130E+12
Ca 48     1.1281E+14
Ti 46     5.8301E+16
Ti 47     5.2577E+16
Ti 48     5.2096E+17
Ti 49     3.8231E+16
Ti 50     3.6606E+16
 V 50     4.7693E+14   1.2289E-23   8.3329E+01   9.5324E-12   7.0337E-11   1.9010E-21   3.4479E-16   1.489E+11(My)    V 50
 V 51     1.9029E+17
Cr 50     5.2922E+18
Cr 51     8.0359E+07   1.3648E-13   4.7126E-07   9.4923E-02   2.3272E+01   6.2897E-10   8.8486E-07   2.770E+01 (d)    Cr 51
Cr 52     1.0206E+20
Cr 53     1.1571E+19
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Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.6878E+10	5.8264E-13	7.2549E-05	1.2841E-01	6.1741E+02	1.6687E-08	2.0377E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0564E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0677E-09 1.237082E+02 3.1820E+03 1.5734E+04 4.2523E-07 4.2107E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 14.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.02810E+07
He	2.23537E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.05661E-02
C	9.24756E+06
N	2.65812E+17
O	3.82140E-06
Na	1.47231E+16
Mg	2.55932E+05
Al	3.22619E+17
Si	1.88191E+06
S	2.74231E-03
Cl	1.17536E+04
Ar	7.60970E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	2.13139E+04
Ti	7.06679E+17

V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.09920E+06
Ge	4.62478E+01
As	8.32629E+16
Se	2.01666E+08
Br	6.05099E+14
Kr	2.18838E+06
Rb	1.13142E+16
Sr	2.88224E+06
Y	3.76068E+00
Zr	1.67021E+03
Nb	1.67971E+03
Mo	1.09868E+17
Tc	7.97247E+06
Ru	1.95979E+06
Pd	1.18937E+05
Ag	1.79299E+15
Cd	5.21979E+07
In	5.01239E-06
Sn	2.01229E+06
Sb	1.86661E+16
Te	1.20094E+08
I	1.64422E-03
Xe	9.76969E+05
Cs	1.29432E+05
Ba	1.40818E+17
La	8.27291E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	3.28665E-02
Ta	4.32697E+04
W	3.94515E+15
Re	4.64137E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0828E+00	1.9688E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	9.8439E+00	9.8439E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	6.0779E+10	4.6063E-13	5.7356E-05	1.0152E-01	4.8811E+02	1.3192E-08	1.6109E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.6066E-13	1.237079E+02	1.0152E-01	4.8812E+02	1.3192E-08	1.6110E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.1125E-01	1.4750E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00

3 (0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4 (0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5 (0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6 (0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7 (1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8 (1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9 (1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10 (1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11 (2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12 (2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13 (3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14 (4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15 (5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.3750E+00	7.3750E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.02810E+07
He	2.23537E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.05661E-02
C	9.24653E+06
N	2.65812E+17
O	3.95317E-06
Na	1.47231E+16
Mg	2.56516E+05
Al	3.22619E+17
Si	1.88192E+06
S	3.10485E-03
Cl	1.18930E+04
Ar	7.45334E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	2.27276E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.09951E+06
Ge	4.63209E+01
As	8.32629E+16
Se	2.02476E+08
Br	6.05099E+14
Kr	2.19212E+06
Rb	1.13142E+16
Sr	2.99856E+06
Y	3.80562E+00
Zr	1.68802E+03
Nb	1.87204E+03
Mo	1.09868E+17
Tc	8.05304E+06
Ru	1.95996E+06
Pd	1.18991E+05
Ag	1.79299E+15
Cd	5.23520E+07
In	0.00000E+00
Sn	2.03226E+06
Sb	1.86661E+16
Te	1.23172E+08
I	1.73514E-03
Xe	1.03042E+06
Cs	1.23417E+05
Ba	1.40818E+17
La	8.27466E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00

Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	3.28666E-02
Ta	4.60843E+04
W	3.94515E+15
Re	4.70868E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.959E+03	1.573E+04	4.252E-01	4.211E-03	6.068E-09	1.237082E+02
338.6 (d)	2.538E-08	6.079E+01	4.881E+02	1.319E-02	1.611E-04	4.607E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.573E+04	7.955E-04	4.211E-03	6.068E-09
338.6 (d)	4.881E+02	2.538E-08	1.611E-04	4.607E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.959E+06	7.556E-10	5.296E-05	3.182E+03
338.6 (d)	6.079E+04	5.737E-14	1.643E-06	1.015E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.959E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	6.079E+01	2.538E-08	5.737E-14	2.026E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	

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Step   16 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     15.06 (y)        Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04


Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04


Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04


Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :       6.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time    :       7.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :       7.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time    :       8.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :       8.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time    :       9.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :       9.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time    :      10.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :      10.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time    :      11.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :      11.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time    :      12.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :      12.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time    :      13.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Elapsed Time : 13.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.5762E-13	1.237079E+02	1.0085E-01	4.8489E+02	1.3105E-08	1.6003E-04

Step : 15

Elapsed Time : 14.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0677E-09	1.237082E+02	3.1820E+03	1.5734E+04	4.2523E-07	4.2107E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 14.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.6066E-13	1.237079E+02	1.0152E-01	4.8812E+02	1.3192E-08	1.6110E-04

Step : 16
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 15.06 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03 (My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11 (My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.7272E+10	5.8563E-13	7.2921E-05	1.2907E-01	6.2057E+02	1.6772E-08	2.0481E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0564E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04 (My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								

Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0677E-09 1.237082E+02 3.1820E+03 1.5737E+04 4.2532E-07 4.2118E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 15.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.09664E+07
He	2.38439E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.12705E-02
C	9.86347E+06
N	2.65812E+17
O	4.08494E-06
Na	1.47231E+16
Mg	2.73033E+05
Al	3.22619E+17
Si	2.00737E+06
S	3.13353E-03
Cl	1.25465E+04
Ar	8.09804E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	2.28583E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.17250E+06
Ge	4.93358E+01
As	8.32629E+16
Se	2.15164E+08
Br	6.05099E+14
Kr	2.33452E+06
Rb	1.13142E+16
Sr	3.08214E+06
Y	4.01439E+00
Zr	1.78274E+03
Nb	1.91170E+03
Mo	1.09868E+17
Tc	8.50933E+06
Ru	2.09047E+06
Pd	1.26897E+05
Ag	1.79299E+15
Cd	5.56946E+07
In	5.01239E-06
Sn	2.14777E+06
Sb	1.86661E+16
Te	1.28308E+08
I	1.75990E-03
Xe	1.04566E+06
Cs	1.42912E+05
Ba	1.40818E+17
La	8.82456E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00

Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	3.50576E-02
Ta	4.63734E+04
W	3.94515E+15
Re	4.95544E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0881E+00	1.9783E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	9.8917E+00	9.8917E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	6.1090E+10	4.6299E-13	5.7650E-05	1.0204E-01	4.9062E+02	1.3260E-08	1.6192E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							

Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.6302E-13	1.237079E+02	1.0204E-01	4.9062E+02	1.3260E-08	1.6192E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.1541E-01	1.4826E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.4128E+00	7.4128E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.09664E+07
He	2.38439E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.12705E-02
C	9.86237E+06
N	2.65812E+17
O	4.21672E-06
Na	1.47231E+16
Mg	2.73617E+05
Al	3.22619E+17
Si	2.00738E+06
S	3.52024E-03

Cl	1.26859E+04
Ar	7.94057E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	2.42719E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.17281E+06
Ge	4.94090E+01
As	8.32629E+16
Se	2.15974E+08
Br	6.05099E+14
Kr	2.33826E+06
Rb	1.13142E+16
Sr	3.19846E+06
Y	4.05933E+00
Zr	1.80055E+03
Nb	2.11807E+03
Mo	1.09868E+17
Tc	8.58990E+06
Ru	2.09064E+06
Pd	1.26954E+05
Ag	1.79299E+15
Cd	5.58487E+07
In	0.00000E+00
Sn	2.16775E+06
Sb	1.86661E+16
Te	1.31386E+08
I	1.85083E-03
Xe	1.09911E+06
Cs	1.37371E+05
Ba	1.40818E+17
La	8.82630E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	3.50577E-02
Ta	4.91881E+04
W	3.94515E+15
Re	5.02276E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.960E+03	1.574E+04	4.253E-01	4.212E-03	6.068E-09	1.237082E+02
338.6 (d)	2.551E-08	6.110E+01	4.906E+02	1.326E-02	1.619E-04	4.630E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.574E+04	7.955E-04	4.212E-03	6.068E-09
338.6 (d)	4.906E+02	2.551E-08	1.619E-04	4.630E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.960E+06	7.556E-10	5.297E-05	3.182E+03
338.6 (d)	6.110E+04	5.766E-14	1.651E-06	1.020E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.960E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	6.110E+01	2.551E-08	5.766E-14	2.037E-01

```
                                                                    Elapsed Time.

Step    1 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     26.35 (d)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    365.00 (d)

Step    2 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      1.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      2.00 (y)

Step    3 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      2.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      3.00 (y)

Step    4 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      3.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      4.00 (y)

Step    5 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      4.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      5.00 (y)

Step    6 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      5.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.00 (y)

Step    7 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      6.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.99 (y)

Step    8 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      7.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      7.99 (y)

Step    9 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      8.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      8.99 (y)

Step   10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      9.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      9.99 (y)

Step   11 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     10.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     10.99 (y)

Step   12 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     11.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     11.99 (y)

Step   13 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     12.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     12.99 (y)

Step   14 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     13.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     13.99 (y)

Step   15 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     14.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     14.99 (y)

Step   16 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     15.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     15.99 (y)

Step   17 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     16.06 (y)        Intervals :  2

Cooling Times (s)  :

   2.9259E+07

    338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
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            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :       3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :       4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :       5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :       6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :       7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :       8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :       8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :       9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
```

```
Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17
     AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :     16.06 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
```

Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.7578E+10	5.8795E-13	7.3210E-05	1.2958E-01	6.2303E+02	1.6839E-08	2.0562E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0564E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3112E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0677E-09 1.237082E+02 3.1820E+03 1.5739E+04 4.2538E-07 4.2126E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 16.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.16518E+07
He	2.53342E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.19749E-02
C	1.04793E+07
N	2.65812E+17
O	4.34849E-06
Na	1.47231E+16
Mg	2.90134E+05
Al	3.22619E+17
Si	2.13283E+06
S	3.55080E-03
Cl	1.33393E+04
Ar	8.58518E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	2.44026E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.24580E+06
Ge	5.24239E+01
As	8.32629E+16
Se	2.28663E+08
Br	6.05099E+14
Kr	2.48066E+06
Rb	1.13142E+16
Sr	3.28205E+06
Y	4.26810E+00
Zr	1.89528E+03
Nb	2.15883E+03
Mo	1.09868E+17
Tc	9.04619E+06
Ru	2.22115E+06
Pd	1.34860E+05
Ag	1.79299E+15
Cd	5.91913E+07
In	5.01239E-06
Sn	2.28325E+06
Sb	1.86661E+16
Te	1.36523E+08
I	1.87559E-03
Xe	1.11436E+06
Cs	1.56902E+05
Ba	1.40818E+17
La	9.37620E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	3.72487E-02
Ta	4.94772E+04
W	3.94515E+15
Re	5.26952E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJERF Reactor

AJERF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0922E+00	1.9858E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01

6 (0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7 (1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8 (1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9 (1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10 (1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11 (2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12 (2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13 (3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14 (4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15 (5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	9.9289E+00	9.9289E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	6.1332E+10	4.6482E-13	5.7879E-05	1.0244E-01	4.9256E+02	1.3312E-08	1.6256E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						

Ba136	1.1060E+16
Ba137	1.5817E+16
Ba138	1.0096E+17
W180	4.7342E+12
W182	1.0455E+15
W183	5.6455E+14
W184	1.2088E+15
W186	1.1216E+15

338.6 (d) 4.6485E-13 1.237079E+02 1.0245E-01 4.9256E+02 1.3312E-08 1.6256E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.1864E-01	1.4884E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.4422E+00	7.4422E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMRS/cm3
H	1.16518E+07
He	2.53342E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.19749E-02
C	1.04781E+07
N	2.65812E+17
O	4.48026E-06
Na	1.47231E+16
Mg	2.90718E+05
Al	3.22619E+17
Si	2.13284E+06
S	3.96167E-03
Cl	1.34787E+04
Ar	8.42661E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	2.58163E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.24611E+06
Ge	5.24970E+01
As	8.32629E+16
Se	2.29473E+08
Br	6.05099E+14
Kr	2.48440E+06
Rb	1.13142E+16
Sr	3.39836E+06
Y	4.31304E+00
Zr	1.91309E+03
Nb	2.37924E+03
Mo	1.09868E+17
Tc	9.12675E+06
Ru	2.22132E+06
Pd	1.34921E+05

Ag	1.79299E+15
Cd	5.93454E+07
In	0.00000E+00
Sn	2.30323E+06
Sb	1.86661E+16
Te	1.39601E+08
I	1.96652E-03
Xe	1.16781E+06
Cs	1.51804E+05
Ba	1.40818E+17
La	9.37794E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	3.72488E-02
Ta	5.22919E+04
W	3.94515E+15
Re	5.33684E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.960E+03	1.574E+04	4.254E-01	4.213E-03	6.068E-09	1.237082E+02
338.6 (d)	2.561E-08	6.134E+01	4.926E+02	1.331E-02	1.626E-04	4.649E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.574E+04	7.955E-04	4.213E-03	6.068E-09
338.6 (d)	4.926E+02	2.561E-08	1.626E-04	4.649E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.960E+06	7.556E-10	5.297E-05	3.182E+03
338.6 (d)	6.134E+04	5.789E-14	1.658E-06	1.024E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.960E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	6.134E+01	2.561E-08	5.789E-14	2.045E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	

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Step    9 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     8.07 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     8.99 (y)

Step   10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     9.07 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     9.99 (y)

Step   11 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    10.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    10.99 (y)

Step   12 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    11.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    11.99 (y)

Step   13 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    12.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    12.99 (y)

Step   14 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    13.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    13.99 (y)

Step   15 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    14.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    14.99 (y)

Step   16 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    15.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    15.99 (y)

Step   17 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    16.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    16.99 (y)

Step   18 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    17.06 (y)      Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :      26.35 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     365.00 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :       1.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       2.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :       2.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       3.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05


Step :   4

Elapsed Time   :       3.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       4.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04


Step :   5

Elapsed Time   :       4.07 (y)
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            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time   :       5.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

 Step :   6

 Elapsed Time   :       5.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time   :       6.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

 Step :   7

 Elapsed Time   :       6.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time   :       6.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

 Step :   8

 Elapsed Time   :       7.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time   :       7.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

 Step :   9

 Elapsed Time   :       8.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time   :       8.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

 Step :  10

 Elapsed Time   :       9.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time   :       9.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

 Step :  11

 Elapsed Time   :      10.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time   :      10.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

 Step :  12

 Elapsed Time   :      11.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Elapsed Time   :     11.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18
     AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :     17.06 (y)          Cooling Time 0.

Nuclide     N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
Al 27     3.2262E+17
 K 39     4.6135E+16
 K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
 K 41     3.3294E+15
Ca 40     5.8480E+16
Ca 42     3.9031E+14
Ca 43     8.1440E+13
Ca 44     1.2584E+15
Ca 46     2.4130E+12
Ca 48     1.1281E+14
Ti 46     5.8301E+16
Ti 47     5.2577E+16
Ti 48     5.2096E+17
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Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11 (My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.7815E+10	5.8975E-13	7.3434E-05	1.2998E-01	6.2494E+02	1.6890E-08	2.0625E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0564E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04 (My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0677E-09 1.237082E+02 3.1820E+03 1.5741E+04 4.2544E-07 4.2132E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 17.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.23372E+07
He	2.68244E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.26793E-02
C	1.10951E+07
N	2.65812E+17
O	4.61203E-06
Na	1.47231E+16
Mg	3.07235E+05
Al	3.22619E+17

Si	2.25829E+06
S	3.99411E-03
Cl	1.41322E+04
Ar	9.07114E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	2.59470E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.31910E+06
Ge	5.55120E+01
As	8.32629E+16
Se	2.42161E+08
Br	6.05099E+14
Kr	2.62680E+06
Rb	1.13142E+16
Sr	3.48195E+06
Y	4.52181E+00
Zr	2.00781E+03
Nb	2.42109E+03
Mo	1.09868E+17
Tc	9.58304E+06
Ru	2.35183E+06
Pd	1.42827E+05
Ag	1.79299E+15
Cd	6.26880E+07
In	5.01239E-06
Sn	2.41874E+06
Sb	1.86661E+16
Te	1.44737E+08
I	1.99128E-03
Xe	1.18305E+06
Cs	1.71369E+05
Ba	1.40818E+17
La	9.92784E+05
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	3.94398E-02
Ta	5.25810E+04
W	3.94515E+15
Re	5.58360E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0953E+00	1.9915E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	9.9577E+00	9.9577E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	6.1520E+10	4.6624E-13	5.8056E-05	1.0276E-01	4.9407E+02	1.3353E-08	1.6306E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.6627E-13	1.237079E+02	1.0276E-01	4.9407E+02	1.3353E-08	1.6306E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.2114E-01	1.4930E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.4649E+00	7.4649E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.23372E+07
He	2.68244E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.26793E-02
C	1.10938E+07
N	2.65812E+17
O	4.74381E-06
Na	1.47231E+16
Mg	3.07820E+05
Al	3.22619E+17
Si	2.25830E+06
S	4.42916E-03
Cl	1.42716E+04
Ar	8.91147E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	2.73606E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.31941E+06
Ge	5.55851E+01
As	8.32629E+16
Se	2.42971E+08
Br	6.05099E+14
Kr	2.63053E+06
Rb	1.13142E+16
Sr	3.59827E+06
Y	4.56674E+00
Zr	2.02562E+03
Nb	2.65554E+03
Mo	1.09868E+17
Tc	9.66361E+06
Ru	2.35200E+06
Pd	1.42891E+05
Ag	1.79299E+15
Cd	6.28422E+07
In	0.00000E+00
Sn	2.43871E+06
Sb	1.86661E+16
Te	1.47815E+08
I	2.08220E-03
Xe	1.23650E+06
Cs	1.66687E+05
Ba	1.40818E+17
La	9.92959E+05
Ce	0.00000E+00
Pr	0.00000E+00

Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	3.94399E-02
Ta	5.53956E+04
W	3.94515E+15
Re	5.65091E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.960E+03	1.574E+04	4.254E-01	4.213E-03	6.068E-09	1.237082E+02
338.6 (d)	2.569E-08	6.153E+01	4.941E+02	1.335E-02	1.631E-04	4.663E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.574E+04	7.955E-04	4.213E-03	6.068E-09
338.6 (d)	4.941E+02	2.569E-08	1.631E-04	4.663E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.960E+06	7.556E-10	5.298E-05	3.182E+03
338.6 (d)	6.153E+04	5.807E-14	1.663E-06	1.028E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.960E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	6.153E+01	2.569E-08	5.807E-14	2.051E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	

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Step   13 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     12.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     12.99 (y)

Step   14 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     13.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     13.99 (y)

Step   15 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     14.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     14.99 (y)

Step   16 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     15.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     15.99 (y)

Step   17 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     16.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     16.99 (y)

Step   18 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     17.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     17.99 (y)

Step   19 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     18.06 (y)        Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04


Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04
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Step :   6

Elapsed Time   :       5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :       6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :       7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :       8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :       9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :      10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :      11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :      12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :      13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :      14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :      15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :      16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :      17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19
    AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :      18.06 (y)          Cooling Time 0.

Nuclide     N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
Al 27     3.2262E+17
 K 39     4.6135E+16
 K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
 K 41     3.3294E+15
Ca 40     5.8480E+16
Ca 42     3.9031E+14
Ca 43     8.1440E+13
Ca 44     1.2584E+15
Ca 46     2.4130E+12
Ca 48     1.1281E+14
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Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.8000E+10	5.9114E-13	7.3608E-05	1.3028E-01	6.2642E+02	1.6930E-08	2.0674E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0564E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0677E-09 1.237082E+02 3.1820E+03 1.5743E+04 4.2548E-07 4.2137E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 18.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.30225E+07
He	2.83147E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.33837E-02
C	1.17108E+07
N	2.65812E+17
O	4.87558E-06

Na	1.47231E+16
Mg	3.24336E+05
Al	3.22619E+17
Si	2.38375E+06
S	4.46348E-03
Cl	1.49251E+04
Ar	9.55591E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	2.74913E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.39240E+06
Ge	5.86000E+01
As	8.32629E+16
Se	2.55659E+08
Br	6.05099E+14
Kr	2.77293E+06
Rb	1.13142E+16
Sr	3.68185E+06
Y	4.77551E+00
Zr	2.12035E+03
Nb	2.69848E+03
Mo	1.09868E+17
Tc	1.01199E+07
Ru	2.48251E+06
Pd	1.50798E+05
Ag	1.79299E+15
Cd	6.61848E+07
In	5.01239E-06
Sn	2.55422E+06
Sb	1.86661E+16
Te	1.52952E+08
I	2.10696E-03
Xe	1.25175E+06
Cs	1.86283E+05
Ba	1.40818E+17
La	1.04795E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	4.16309E-02
Ta	5.56848E+04
W	3.94515E+15
Re	5.89767E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0978E+00	1.9960E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8042E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7464E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7552E+01	8.8042E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	9.9800E+00	9.9800E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-21	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	6.1666E+10	4.6735E-13	5.8193E-05	1.0300E-01	4.9524E+02	1.3385E-08	1.6344E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.6738E-13	1.237079E+02	1.0300E-01	4.9524E+02	1.3385E-08	1.6345E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.2309E-01	1.4965E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.4826E+00	7.4826E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.30225E+07
He	2.83147E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.33837E-02
C	1.17094E+07
N	2.65812E+17
O	5.00735E-06
Na	1.47231E+16
Mg	3.24921E+05
Al	3.22619E+17
Si	2.38377E+06
S	4.92269E-03
Cl	1.50645E+04
Ar	9.39514E+03
K	4.94701E+16
Ca	6.03257E+16
Sc	2.89050E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.39271E+06
Ge	5.86731E+01
As	8.32629E+16
Se	2.56469E+08
Br	6.05099E+14
Kr	2.77667E+06
Rb	1.13142E+16
Sr	3.79817E+06
Y	4.82045E+00
Zr	2.13816E+03
Nb	2.94697E+03
Mo	1.09868E+17
Tc	1.02005E+07
Ru	2.48268E+06
Pd	1.50865E+05
Ag	1.79299E+15
Cd	6.63389E+07
In	0.00000E+00
Sn	2.57420E+06
Sb	1.86661E+16
Te	1.56030E+08
I	2.19789E-03
Xe	1.30520E+06
Cs	1.81991E+05
Ba	1.40818E+17

La	1.04812E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	4.16310E-02
Ta	5.84994E+04
W	3.94515E+15
Re	5.96499E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.960E+03	1.574E+04	4.255E-01	4.214E-03	6.068E-09	1.237082E+02
338.6 (d)	2.575E-08	6.167E+01	4.952E+02	1.338E-02	1.634E-04	4.674E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.574E+04	7.955E-04	4.214E-03	6.068E-09
338.6 (d)	4.952E+02	2.575E-08	1.634E-04	4.674E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.960E+06	7.556E-10	5.299E-05	3.182E+03
338.6 (d)	6.167E+04	5.820E-14	1.667E-06	1.030E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.960E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	6.167E+01	2.575E-08	5.820E-14	2.056E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	

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Step  12 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    11.06 (y)      Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    11.99 (y)

Step  13 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    12.06 (y)      Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    12.99 (y)

Step  14 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    13.06 (y)      Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    13.99 (y)

Step  15 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    14.06 (y)      Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    14.99 (y)

Step  16 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    15.06 (y)      Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    15.99 (y)

Step  17 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    16.06 (y)      Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    16.99 (y)

Step  18 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    17.06 (y)      Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    17.99 (y)

Step  19 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    18.06 (y)      Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    18.99 (y)

Step  20 : Activation of  3.31020E+06(s), i.e.    38.31 (d)    19.09 (y)      Intervals :  2

Cooling Times (s)  :

  2.8226E+07

   326.7 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04


Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Elapsed Time    :       5.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time    :       5.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time    :       6.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time    :       6.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time    :       6.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time    :       7.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time    :       7.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time    :       8.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time    :       8.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time    :       9.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time    :       9.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time    :      10.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time    :      10.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time    :      11.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time    :      11.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04
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Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20
    AJBRF Reactor
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AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 19.09 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	1.0262E+08	1.7428E-13	6.0180E-07	1.2122E-01	2.9718E+01	8.0319E-10	1.1300E-06	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	8.5523E+10	6.4816E-13	8.0707E-05	1.4285E-01	6.8683E+02	1.8563E-08	2.2668E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	1.0741E+09	4.0551E-11	2.2491E-04	2.8679E+01	1.9365E+02	5.2339E-09	3.4830E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7982E+01	2.6090E-13	9.2981E-12	5.8305E-03	1.3464E+00	3.6389E-11	8.8578E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4365E+05	4.0317E-13	1.3550E-07	1.3689E-01	2.5103E+00	6.7846E-11	4.2692E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								
here are	81 Nuclides.								
Totals:	8.5807E+22	6.0779E-09	1.237083E+02	3.1892E+03	1.5858E+04	4.2859E-07	4.3209E-03		

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 19.09 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.40190E+07
He	3.04813E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.44079E-02
C	1.26064E+07
N	2.65812E+17
O	5.13912E-06
Na	1.47231E+16
Mg	3.49201E+05
Al	3.22619E+17
Si	2.56618E+06
S	5.95220E-03
Cl	1.60348E+04
Ar	1.03115E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	2.91456E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.49897E+06
Ge	6.30896E+01
As	8.32629E+16
Se	2.75284E+08
Br	6.05099E+14
Kr	2.98540E+06
Rb	1.13142E+16
Sr	3.94738E+06
Y	5.14424E+00
Zr	2.28198E+03
Nb	3.00007E+03
Mo	1.09868E+17
Tc	1.09003E+07
Ru	2.67249E+06
Pd	1.62361E+05
Ag	1.79299E+15
Cd	7.12022E+07
In	5.01239E-06
Sn	2.75118E+06
Sb	1.86661E+16
Te	1.64076E+08
I	2.24673E-03
Xe	1.33959E+06
Cs	2.09424E+05
Ba	1.40818E+17
La	1.12814E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	4.48165E-02
Ta	5.90534E+04
W	3.94515E+15
Re	6.33397E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.2057E+00	2.1922E+01
2	(0.1 -> 0.2 MeV)	1.4413E+00	9.2986E+00
3	(0.2 -> 0.4 MeV)	1.1266E+00	3.7554E+00
4	(0.4 -> 0.6 MeV)	4.7844E+00	9.5689E+00
5	(0.6 -> 0.8 MeV)	3.7152E-01	5.3075E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	1.2789E+02	1.1522E+02
8	(1.22 ->1.44 MeV)	1.2997E+02	9.7721E+01
9	(1.44 ->1.66 MeV)	1.7658E-01	1.1392E-01
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	9.7835E+01	1.1522E+02	1.3877E+04	5.3075E-01
9.5689E+00	1.8777E+00	1.8777E+00	9.2986E+00	1.0961E+01	1.0961E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 326.69 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	6.8176E+10	5.1669E-13	6.4337E-05	1.1388E-01	5.4752E+02	1.4798E-08	1.8070E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Fe 59	6.6200E+06	2.4993E-13	1.3862E-06	1.7676E-01	1.1936E+00	3.2259E-11	2.1467E-06	Fe 59
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 94	1.0163E+16						
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						

Mo 98	2.6511E+16
Mo100	1.0580E+16
Ag107	9.2947E+14
Ag109	8.6352E+14
Sb121	1.0679E+16
Sb123	7.9872E+15
Ba130	1.4927E+14
Ba132	1.4223E+14
Ba134	3.4036E+15
Ba135	9.2828E+15
Ba136	1.1060E+16
Ba137	1.5817E+16
Ba138	1.0096E+17
W180	4.7342E+12
W182	1.0455E+15
W183	5.6455E+14
W184	1.2088E+15
W186	1.1216E+15

326.7 (d) 7.6666E-13 1.237079E+02 2.9064E-01 5.4872E+02 1.4830E-08 1.8285E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 326.69 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.1000E-01	1.6545E+01
2	(0.1 -> 0.2 MeV)	8.8833E-03	5.7312E-02
3	(0.2 -> 0.4 MeV)	1.1617E-03	3.8724E-03
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	7.4393E-01	6.7021E-01
8	(1.22 ->1.44 MeV)	6.6444E-01	4.9958E-01
9	(1.44 ->1.66 MeV)	1.0058E-03	6.4893E-04
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	5.0023E-01	6.7021E-01	0.0000E+00	0.0000E+00
2.0301E-09	1.9362E-03	1.9362E-03	5.7312E-02	8.2727E+00	8.2727E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 326.69 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.40190E+07
He	3.04813E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.44079E-02
C	1.26050E+07
N	2.65812E+17
O	5.27090E-06
Na	1.47231E+16
Mg	3.49786E+05
Al	3.22619E+17
Si	2.56619E+06
S	6.42909E-03
Cl	1.62171E+04
Ar	1.01071E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.09807E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.49928E+06
Ge	6.31628E+01
As	8.32629E+16
Se	2.76094E+08
Br	6.05099E+14

Kr	2.98914E+06
Rb	1.13142E+16
Sr	4.08881E+06
Y	5.18933E+00
Zr	2.30177E+03
Nb	3.25658E+03
Mo	1.09868E+17
Tc	1.09810E+07
Ru	2.67267E+06
Pd	1.62432E+05
Ag	1.79299E+15
Cd	7.13926E+07
In	0.00000E+00
Sn	2.77118E+06
Sb	1.86661E+16
Te	1.67947E+08
I	2.36599E-03
Xe	1.40507E+06
Cs	1.98254E+05
Ba	1.40818E+17
La	1.12831E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	4.48166E-02
Ta	6.28024E+04
W	3.94515E+15
Re	6.42033E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.973E-04	1.975E+03	1.586E+04	4.286E-01	4.321E-03	6.078E-09	1.237083E+02
326.7 (d)	7.266E-08	6.833E+01	5.487E+02	1.483E-02	1.829E-04	7.667E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.586E+04	7.973E-04	4.321E-03	6.078E-09
326.7 (d)	5.487E+02	7.266E-08	1.829E-04	7.667E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.975E+06	7.569E-10	5.337E-05	3.189E+03
326.7 (d)	6.833E+04	9.547E-14	1.847E-06	2.906E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.975E+03	7.973E-04	7.569E-10	3.321E+03
326.7 (d)	6.833E+01	7.266E-08	9.547E-14	2.768E-01

			Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2

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                Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      5.00 (y)

Step    6 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      5.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.00 (y)

Step    7 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      6.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      6.99 (y)

Step    8 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      7.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      7.99 (y)

Step    9 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      8.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      8.99 (y)

Step   10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      9.07 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      9.99 (y)

Step   11 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     10.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     10.99 (y)

Step   12 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     11.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     11.99 (y)

Step   13 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     12.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     12.99 (y)

Step   14 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     13.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     13.99 (y)

Step   15 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     14.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     14.99 (y)

Step   16 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     15.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     15.99 (y)

Step   17 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     16.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     16.99 (y)

Step   18 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     17.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     17.99 (y)

Step   19 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     18.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     18.99 (y)

Step   20 : Activation of  3.31020E+06(s), i.e.     38.31 (d)     19.09 (y)        Intervals :  2
            Cold Pause of  2.82258E+07(s), i.e.    326.69 (d)     19.98 (y)

Step   21 : Activation of  2.82600E+06(s), i.e.     32.71 (d)     20.07 (y)        Intervals :  2

Cooling Times (s)  :

   2.8710E+07

    332.3 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11
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Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
```

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 17.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.6627E-13	1.237079E+02	1.0276E-01	4.9407E+02	1.3353E-08	1.6306E-04

Step : 19

Elapsed Time : 18.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0677E-09	1.237082E+02	3.1820E+03	1.5743E+04	4.2548E-07	4.2137E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 18.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.6738E-13	1.237079E+02	1.0300E-01	4.9524E+02	1.3385E-08	1.6345E-04

Step : 20

Elapsed Time : 19.09 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0779E-09	1.237083E+02	3.1892E+03	1.5858E+04	4.2859E-07	4.3209E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 19.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	7.6666E-13	1.237079E+02	2.9064E-01	5.4872E+02	1.4830E-08	1.8285E-04

Step : 21
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 20.07 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	9.3018E+07	1.5798E-13	5.4551E-07	1.0988E-01	2.6938E+01	7.2806E-10	1.0243E-06	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	8.8437E+10	6.7025E-13	8.3457E-05	1.4772E-01	7.1024E+02	1.9196E-08	2.3440E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	9.5600E+08	3.6093E-11	2.0018E-04	2.5527E+01	1.7237E+02	4.6586E-09	3.1001E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2

Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04 (My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7982E+01	2.6090E-13	9.2981E-12	5.8305E-03	1.3464E+00	3.6389E-11	8.8578E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4351E+05	4.0311E-13	1.3547E-07	1.3686E-01	2.5099E+00	6.7835E-11	4.2685E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0735E-09 1.237082E+02 3.1861E+03 1.5857E+04 4.2857E-07 4.2903E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 20.07 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.48697E+07
He	3.23310E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.52822E-02
C	1.33707E+07
N	2.65812E+17
O	5.40267E-06
Na	1.47231E+16
Mg	3.70426E+05
Al	3.22619E+17
Si	2.72185E+06
S	7.45413E-03
Cl	1.70377E+04
Ar	1.08971E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.11883E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.58995E+06
Ge	6.69226E+01
As	8.32629E+16
Se	2.92038E+08
Br	6.05099E+14
Kr	3.16679E+06
Rb	1.13142E+16
Sr	4.20589E+06
Y	5.45919E+00
Zr	2.42239E+03
Nb	3.31024E+03
Mo	1.09868E+17
Tc	1.15667E+07
Ru	2.83469E+06
Pd	1.72246E+05
Ag	1.79299E+15
Cd	7.55457E+07
In	5.01239E-06
Sn	2.91935E+06
Sb	1.86661E+16
Te	1.74623E+08

I	2.40279E-03
Xe	1.42972E+06
Cs	2.22475E+05
Ba	1.40818E+17
La	1.19661E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	4.75361E-02
Ta	6.32583E+04
W	3.94515E+15
Re	6.73210E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.2414E+00	2.2571E+01
2	(0.1 -> 0.2 MeV)	1.2829E+00	8.2765E+00
3	(0.2 -> 0.4 MeV)	1.0182E+00	3.3939E+00
4	(0.4 -> 0.6 MeV)	4.7843E+00	9.5685E+00
5	(0.6 -> 0.8 MeV)	3.7151E-01	5.3073E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	1.1462E+02	1.0326E+02
8	(1.22 ->1.44 MeV)	1.1812E+02	8.8811E+01
9	(1.44 ->1.66 MeV)	1.5891E-01	1.0253E-01
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	8.8913E+01	1.0326E+02	1.3877E+04	5.3073E-01
9.5685E+00	1.6970E+00	1.6970E+00	8.2765E+00	1.1285E+01	1.1285E+01

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 332.29 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							

Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	7.0226E+10	5.3223E-13	6.6272E-05	1.1730E-01	5.6399E+02	1.5243E-08	1.8613E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Fe 59	5.3997E+06	2.0386E-13	1.1307E-06	1.4418E-01	9.7357E-01	2.6313E-11	1.7510E-06	Fe 59
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 94	1.0163E+16						
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
332.3 (d)		7.3612E-13	1.237079E+02	2.6148E-01	5.6496E+02	1.5269E-08	1.8789E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 332.29 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.3736E-01	1.7043E+01
2	(0.1 -> 0.2 MeV)	7.2458E-03	4.6747E-02
3	(0.2 -> 0.4 MeV)	9.4759E-04	3.1586E-03
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	6.0680E-01	5.4667E-01
8	(1.22 ->1.44 MeV)	5.4196E-01	4.0749E-01
9	(1.44 ->1.66 MeV)	8.2329E-04	5.3115E-04
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	4.0802E-01	5.4667E-01	0.0000E+00	0.0000E+00
2.0301E-09	1.5793E-03	1.5793E-03	4.6747E-02	8.5214E+00	8.5214E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 332.29 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.48697E+07
He	3.23310E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.52822E-02
C	1.33693E+07
N	2.65812E+17
O	5.53444E-06
Na	1.47231E+16
Mg	3.71011E+05
Al	3.22619E+17
Si	2.72186E+06
S	7.96863E-03
Cl	1.72012E+04
Ar	1.07097E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.29427E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.59027E+06
Ge	6.69957E+01
As	8.32629E+16
Se	2.92848E+08
Br	6.05099E+14
Kr	3.17053E+06
Rb	1.13142E+16
Sr	4.33693E+06
Y	5.50425E+00
Zr	2.44145E+03
Nb	3.58946E+03
Mo	1.09868E+17
Tc	1.16473E+07
Ru	2.83487E+06
Pd	1.72322E+05
Ag	1.79299E+15
Cd	7.57360E+07
In	0.00000E+00
Sn	2.93934E+06
Sb	1.86661E+16
Te	1.78155E+08
I	2.50962E-03
Xe	1.49033E+06
Cs	2.15206E+05
Ba	1.40818E+17
La	1.19679E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	4.75362E-02
Ta	6.67289E+04
W	3.94515E+15
Re	6.81074E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.965E-04	1.975E+03	1.586E+04	4.286E-01	4.290E-03	6.073E-09	1.237082E+02
332.3 (d)	6.537E-08	7.036E+01	5.650E+02	1.527E-02	1.879E-04	7.361E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.586E+04	7.965E-04	4.290E-03	6.073E-09

332.3 (d)	5.650E+02	6.537E-08	1.879E-04	7.361E-13

AJBRF Reactor — AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.975E+06	7.563E-10	5.337E-05	3.186E+03
332.3 (d)	7.036E+04	9.167E-14	1.902E-06	2.615E-01

AJBRF Reactor — AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.975E+03	7.965E-04	7.563E-10	3.320E+03
332.3 (d)	7.036E+01	6.537E-08	9.167E-14	2.745E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2

Cooling Times (s) :

2.9394E+07

340.2 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0671E-09	1.237081E+02	3.1819E+03	1.5257E+04	4.1235E-07	4.0527E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.0545E-13	1.237079E+02	2.3236E-02	1.1171E+02	3.0193E-09	3.6871E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0673E-09	1.237081E+02	3.1819E+03	1.5367E+04	4.1533E-07	4.0898E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.8728E-13	1.237079E+02	4.1272E-02	1.9843E+02	5.3630E-09	6.5491E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0674E-09	1.237082E+02	3.1820E+03	1.5452E+04	4.1763E-07	4.1179E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	2.5081E-13	1.237079E+02	5.5272E-02	2.6575E+02	7.1823E-09	8.7707E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0675E-09	1.237082E+02	3.1820E+03	1.5518E+04	4.1942E-07	4.1397E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 4.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.0012E-13	1.237079E+02	6.6140E-02	3.1800E+02	8.5946E-09	1.0495E-04

Step : 5

Elapsed Time : 4.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0675E-09	1.237082E+02	3.1820E+03	1.5570E+04	4.2080E-07	4.1567E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 5.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.3840E-13	1.237079E+02	7.4577E-02	3.5856E+02	9.6909E-09	1.1834E-04

Step : 6

Elapsed Time : 5.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5610E+04	4.2188E-07	4.1698E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.6812E-13	1.237079E+02	8.1125E-02	3.9005E+02	1.0542E-08	1.2873E-04

Step : 7

Elapsed Time : 6.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5640E+04	4.2272E-07	4.1800E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.9118E-13	1.237079E+02	8.6209E-02	4.1449E+02	1.1203E-08	1.3680E-04

Step : 8

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Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22
    AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :     21.05 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
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N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	7.6936E+07	1.3066E-13	4.5119E-07	9.0880E-02	2.2281E+01	6.0218E-10	8.4717E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	8.5590E+10	6.4867E-13	8.0771E-05	1.4296E-01	6.8737E+02	1.8578E-08	2.2686E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	7.6765E+08	2.8982E-11	1.6074E-04	2.0498E+01	1.3841E+02	3.7407E-09	2.4893E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8304E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4226E+05	4.0251E-13	1.3527E-07	1.3666E-01	2.5062E+00	6.7734E-11	4.2622E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0663E-09 1.237082E+02 3.1810E+03 1.5796E+04 4.2691E-07 4.2215E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 21.05 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.55145E+07
He	3.37330E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.59448E-02
C	1.39496E+07
N	2.65812E+17
O	5.66622E-06
Na	1.47231E+16
Mg	3.86515E+05
Al	3.22619E+17
Si	2.83988E+06
S	8.98400E-03
Cl	1.78141E+04
Ar	1.13176E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.30742E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.65891E+06
Ge	6.98278E+01
As	8.32629E+16
Se	3.04738E+08
Br	6.05099E+14
Kr	3.30427E+06
Rb	1.13142E+16
Sr	4.41286E+06
Y	5.69808E+00
Zr	2.52990E+03
Nb	3.63331E+03
Mo	1.09868E+17
Tc	1.20719E+07
Ru	2.95764E+06
Pd	1.79761E+05
Ag	1.79299E+15
Cd	7.88821E+07
In	5.01239E-06
Sn	3.04684E+06
Sb	1.86661E+16
Te	1.82924E+08
I	2.53176E-03
Xe	1.50358E+06
Cs	2.33712E+05
Ba	1.40818E+17
La	1.24851E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	4.95974E-02
Ta	6.70072E+04
W	3.94515E+15
Re	7.04187E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1980E+00	2.1781E+01
2	(0.1 -> 0.2 MeV)	1.0301E+00	6.6459E+00
3	(0.2 -> 0.4 MeV)	8.3813E-01	2.7938E+00

4 (0.4 -> 0.6 MeV)	4.7828E+00	9.5656E+00
5 (0.6 -> 0.8 MeV)	3.7141E-01	5.3059E-01
6 (0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7 (1.0 ->1.22 MeV)	9.3458E+01	8.4196E+01
8 (1.22 ->1.44 MeV)	9.9214E+01	7.4597E+01
9 (1.44 ->1.66 MeV)	1.3074E-01	8.4347E-02
10 (1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11 (2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12 (2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13 (3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14 (4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15 (5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.4681E+01	8.4196E+01	1.3877E+04	5.3059E-01
9.5656E+00	1.3969E+00	1.3969E+00	6.6459E+00	1.0891E+01	1.0891E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 340.21 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	6.7593E+10	5.1227E-13	6.3787E-05	1.1290E-01	5.4284E+02	1.4671E-08	1.7916E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						

Ba134	3.4036E+15
Ba135	9.2828E+15
Ba136	1.1060E+16
Ba137	1.5817E+16
Ba138	1.0096E+17
W180	4.7342E+12
W182	1.0455E+15
W183	5.6455E+14
W184	1.2088E+15
W186	1.1216E+15

340.2 (d) 5.1230E-13 1.237079E+02 1.1290E-01 5.4284E+02 1.4671E-08 1.7916E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 340.21 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.0221E-01	1.6404E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	8.2019E+00	8.2019E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 340.21 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.55145E+07
He	3.37330E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.59448E-02
C	1.39481E+07
N	2.65812E+17
O	5.79799E-06
Na	1.47231E+16
Mg	3.87100E+05
Al	3.22619E+17
Si	2.83989E+06
S	9.53360E-03
Cl	1.79471E+04
Ar	1.11590E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.45162E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.65923E+06
Ge	6.99009E+01
As	8.32629E+16
Se	3.05548E+08
Br	6.05099E+14
Kr	3.30801E+06
Rb	1.13142E+16
Sr	4.52500E+06
Y	5.74295E+00
Zr	2.54732E+03
Nb	3.93475E+03
Mo	1.09868E+17
Tc	1.21524E+07

Ru	2.95782E+06
Pd	1.79842E+05
Ag	1.79299E+15
Cd	7.90466E+07
In	0.00000E+00
Sn	3.06680E+06
Sb	1.86661E+16
Te	1.85900E+08
I	2.61852E-03
Xe	1.55496E+06
Cs	2.32399E+05
Ba	1.40818E+17
La	1.24869E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	4.95976E-02
Ta	6.97938E+04
W	3.94515E+15
Re	7.10706E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.953E-04	1.967E+03	1.580E+04	4.269E-01	4.221E-03	6.066E-09	1.237082E+02
340.2 (d)	2.823E-08	6.760E+01	5.428E+02	1.467E-02	1.792E-04	5.123E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.580E+04	7.953E-04	4.221E-03	6.066E-09
340.2 (d)	5.428E+02	2.823E-08	1.792E-04	5.123E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.967E+06	7.555E-10	5.316E-05	3.181E+03
340.2 (d)	6.760E+04	6.380E-14	1.827E-06	1.129E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.967E+03	7.953E-04	7.555E-10	3.319E+03
340.2 (d)	6.760E+01	2.823E-08	6.380E-14	2.253E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	

```
Step   8 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      7.07 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      7.99 (y)

Step   9 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      8.07 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      8.99 (y)

Step  10 : Activation of  2.27682E+06(s), i.e.     26.35 (d)      9.07 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)      9.99 (y)

Step  11 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     10.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     10.99 (y)

Step  12 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     11.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     11.99 (y)

Step  13 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     12.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     12.99 (y)

Step  14 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     13.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     13.99 (y)

Step  15 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     14.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     14.99 (y)

Step  16 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     15.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     15.99 (y)

Step  17 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     16.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     16.99 (y)

Step  18 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     17.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     17.99 (y)

Step  19 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     18.06 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     18.99 (y)

Step  20 : Activation of  3.31020E+06(s), i.e.     38.31 (d)     19.09 (y)        Intervals :  2
           Cold Pause of  2.82258E+07(s), i.e.    326.69 (d)     19.98 (y)

Step  21 : Activation of  2.82600E+06(s), i.e.     32.71 (d)     20.07 (y)        Intervals :  2
           Cold Pause of  2.87100E+07(s), i.e.    332.29 (d)     20.98 (y)

Step  22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)     21.05 (y)        Intervals :  2
           Cold Pause of  2.93940E+07(s), i.e.    340.21 (d)     21.98 (y)

Step  23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)     22.05 (y)        Intervals :  2

Cooling Times (s)  :

  2.9412E+07

   340.4 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05
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Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
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            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02 *  1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3        Ci/cm3        ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
         Production of  H  :        0. appm/y.
         Production of He  :        0. appm/y.
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Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23
     AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :     22.05 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
Al 27     3.2262E+17
 K 39     4.6135E+16
 K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
 K 41     3.3294E+15
Ca 40     5.8480E+16
Ca 42     3.9031E+14
Ca 43     8.1440E+13
Ca 44     1.2584E+15
Ca 46     2.4130E+12
Ca 48     1.1281E+14
Ti 46     5.8301E+16
Ti 47     5.2577E+16
Ti 48     5.2096E+17
Ti 49     3.8231E+16
Ti 50     3.6606E+16
 V 50     4.7693E+14   1.2289E-23   8.3329E+01   9.5324E-12   7.0337E-11   1.9010E-21   3.4479E-16   1.489E+11(My)    V 50
 V 51     1.9029E+17
Cr 50     5.2922E+18
Cr 51     7.6464E+07   1.2986E-13   4.4842E-07   9.0322E-02   2.2144E+01   5.9848E-10   8.4197E-07   2.770E+01 (d)    Cr 51
Cr 52     1.0206E+20
Cr 53     1.1571E+19
Cr 54     2.8806E+18
Cr 55     2.4728E+02   1.4229E-13   4.3606E-11   4.2634E-04   8.0689E-01   2.1808E-11   1.1301E-09   3.540E+00 (m)    Cr 55
Mn 55     8.2737E+20
Mn 56     1.9982E+08   6.0332E-09   8.0809E-05   3.1595E+03   1.4918E+04   4.0319E-07   3.7296E-03   2.579E+00 (h)    Mn 56
Fe 54     4.9638E+21
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Fe 55	8.2874E+10	6.2808E-13	7.8207E-05	1.3842E-01	6.6556E+02	1.7988E-08	2.1966E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	7.6133E+08	2.8743E-11	1.5942E-04	2.0329E+01	1.3727E+02	3.7099E-09	2.4688E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4218E+05	4.0247E-13	1.3526E-07	1.3665E-01	2.5059E+00	6.7728E-11	4.2618E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0661E-09 1.237082E+02 3.1808E+03 1.5773E+04 4.2629E-07 4.2122E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 22.05 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.61539E+07
He	3.51232E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.66020E-02
C	1.45236E+07
N	2.65812E+17
O	5.92976E-06
Na	1.47231E+16
Mg	4.02466E+05
Al	3.22619E+17
Si	2.95690E+06
S	9.57373E-03
Cl	1.85546E+04
Ar	1.17619E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.46337E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16

Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.72729E+06
Ge	7.27086E+01
As	8.32629E+16
Se	3.17330E+08
Br	6.05099E+14
Kr	3.44060E+06
Rb	1.13142E+16
Sr	4.59992E+06
Y	5.93479E+00
Zr	2.63495E+03
Nb	3.98025E+03
Mo	1.09868E+17
Tc	1.25727E+07
Ru	3.07957E+06
Pd	1.87219E+05
Ag	1.79299E+15
Cd	8.21649E+07
In	5.01239E-06
Sn	3.17323E+06
Sb	1.86661E+16
Te	1.90616E+08
I	2.64029E-03
Xe	1.56795E+06
Cs	2.50750E+05
Ba	1.40818E+17
La	1.29997E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	5.16415E-02
Ta	7.00493E+04
W	3.94515E+15
Re	7.33591E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1615E+00	2.1119E+01
2	(0.1 -> 0.2 MeV)	1.0216E+00	6.5911E+00
3	(0.2 -> 0.4 MeV)	8.3270E-01	2.7757E+00
4	(0.4 -> 0.6 MeV)	4.7827E+00	9.5654E+00
5	(0.6 -> 0.8 MeV)	3.7141E-01	5.3058E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.2747E+01	8.3556E+01
8	(1.22 ->1.44 MeV)	9.8579E+01	7.4120E+01
9	(1.44 ->1.66 MeV)	1.2979E-01	8.3737E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.4203E+01	8.3556E+01	1.3877E+04	5.3058E-01
9.5654E+00	1.3878E+00	1.3878E+00	6.5911E+00	1.0560E+01	1.0560E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 340.42 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3

N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	6.5438E+10	4.9594E-13	6.1754E-05	1.0930E-01	5.2554E+02	1.4204E-08	1.7344E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
340.4 (d)		4.9597E-13	1.237079E+02	1.0930E-01	5.2554E+02	1.4204E-08	1.7345E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 340.42 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.7345E-01	1.5881E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00

8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0:0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.9404E+00	7.9404E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 340.42 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.61539E+07
He	3.51232E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.66020E-02
C	1.45219E+07
N	2.65812E+17
O	6.06153E-06
Na	1.47231E+16
Mg	4.03051E+05
Al	3.22619E+17
Si	2.95691E+06
S	1.01463E-02
Cl	1.86868E+04
Ar	1.16032E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.59851E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.72761E+06
Ge	7.27817E+01
As	8.32629E+16
Se	3.18140E+08
Br	6.05099E+14
Kr	3.44434E+06
Rb	1.13142E+16
Sr	4.71149E+06
Y	5.97965E+00
Zr	2.65230E+03
Nb	4.29509E+03
Mo	1.09868E+17
Tc	1.26532E+07
Ru	3.07975E+06
Pd	1.87303E+05
Ag	1.79299E+15
Cd	8.23167E+07
In	0.00000E+00
Sn	3.19319E+06
Sb	1.86661E+16
Te	1.93563E+08
I	2.72644E-03
Xe	1.61905E+06
Cs	2.49775E+05
Ba	1.40818E+17
La	1.30014E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	5.16416E-02

Ta	7.27107E+04
W	3.94515E+15
Re	7.40010E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.952E-04	1.964E+03	1.577E+04	4.263E-01	4.212E-03	6.066E-09	1.237082E+02
340.4 (d)	2.733E-08	6.545E+01	5.255E+02	1.420E-02	1.734E-04	4.960E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.577E+04	7.952E-04	4.212E-03	6.066E-09
340.4 (d)	5.255E+02	2.733E-08	1.734E-04	4.960E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.964E+06	7.554E-10	5.309E-05	3.181E+03
340.4 (d)	6.545E+04	6.176E-14	1.769E-06	1.093E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.964E+03	7.952E-04	7.554E-10	3.319E+03
340.4 (d)	6.545E+01	2.733E-08	6.176E-14	2.182E-01

			Elapsed Time.	
Step 1 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of 2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of 2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2

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                Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     16.99 (y)

Step   18 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     17.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     17.99 (y)

Step   19 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     18.06 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     18.99 (y)

Step   20 : Activation of  3.31020E+06(s), i.e.      38.31 (d)     19.09 (y)        Intervals :  2
            Cold Pause of  2.82258E+07(s), i.e.     326.69 (d)     19.98 (y)

Step   21 : Activation of  2.82600E+06(s), i.e.      32.71 (d)     20.07 (y)        Intervals :  2
            Cold Pause of  2.87100E+07(s), i.e.     332.29 (d)     20.98 (y)

Step   22 : Activation of  2.14200E+06(s), i.e.      24.79 (d)     21.05 (y)        Intervals :  2
            Cold Pause of  2.93940E+07(s), i.e.     340.21 (d)     21.98 (y)

Step   23 : Activation of  2.12400E+06(s), i.e.      24.58 (d)     22.05 (y)        Intervals :  2
            Cold Pause of  2.94120E+07(s), i.e.     340.42 (d)     22.98 (y)

Step   24 : Activation of  1.38060E+06(s), i.e.      15.98 (d)     23.03 (y)        Intervals :  2

Cooling Times (s)  :

   3.0155E+07

    349.0 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04


Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04
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Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13
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Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04


Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04


Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04


Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04


Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04


Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04


Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04


Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
         Production of  H  :       0. appm/y.
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        Production of He  :      0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24
     AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :     23.03 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
Al 27     3.2262E+17
 K 39     4.6135E+16
 K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
 K 41     3.3294E+15
Ca 40     5.8480E+16
Ca 42     3.9031E+14
Ca 43     8.1440E+13
Ca 44     1.2584E+15
Ca 46     2.4130E+12
Ca 48     1.1281E+14
Ti 46     5.8301E+16
Ti 47     5.2577E+16
Ti 48     5.2096E+17
Ti 49     3.8231E+16
Ti 50     3.6606E+16
 V 50     4.7693E+14   1.2289E-23   8.3329E+01   9.5324E-12   7.0337E-11   1.9010E-21   3.4479E-16   1.489E+11(My)    V 50
 V 51     1.9029E+17
Cr 50     5.2922E+18
Cr 51     5.4855E+07   9.3164E-14   3.2170E-07   6.4797E-02   1.5886E+01   4.2935E-10   6.0403E-07   2.770E+01 (d)    Cr 51
Cr 52     1.0206E+20
Cr 53     1.1571E+19
Cr 54     2.8806E+18
Cr 55     2.4728E+02   1.4229E-13   4.3606E-11   4.2634E-04   8.0689E-01   2.1808E-11   1.1301E-09   3.540E+00 (m)    Cr 55
Mn 55     8.2737E+20
Mn 56     1.9982E+08   6.0332E-09   8.0809E-05   3.1595E+03   1.4918E+04   4.0319E-07   3.7296E-03   2.579E+00 (h)    Mn 56
Fe 54     4.9638E+21
Fe 55     7.5424E+10   5.7162E-13   7.1177E-05   1.2598E-01   6.0573E+02   1.6371E-08   1.9991E-04   2.735E+00 (y)    Fe 55
Fe 56     7.7852E+22
Fe 57     1.7989E+21
Fe 58     2.3759E+20
Fe 59     5.2845E+08   1.9951E-11   1.1066E-04   1.4110E+01   9.5279E+01   2.5751E-09   1.7136E-04   4.450E+01 (d)    Fe 59
Co 59     8.4506E+16
Co 60m1   3.6604E+03   4.1217E-14   3.7368E-11   3.4834E-03   4.0374E+00   1.0912E-10   6.8663E-09   1.047E+01 (m)    Co 60m1
Ni 58     5.9997E+17
Ni 60     2.3111E+17
Ni 61     1.0047E+16
Ni 62     3.2027E+16
Ni 64     8.1610E+15
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Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0988E+05	1.4176E-12	1.9379E-07	3.1968E-01	5.9243E+00	1.6012E-10	9.4789E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7980E+01	2.6089E-13	9.2977E-12	5.8302E-03	1.3463E+00	3.6387E-11	8.8574E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.2982E+05	3.9657E-13	1.3328E-07	1.3464E-01	2.4692E+00	6.6734E-11	4.1993E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0572E-09 1.237081E+02 3.1746E+03 1.5665E+04 4.2337E-07 4.1167E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 23.03 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.65695E+07
He	3.60268E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.70292E-02
C	1.48960E+07
N	2.65812E+17
O	6.19331E-06
Na	1.47231E+16
Mg	4.12836E+05
Al	3.22619E+17
Si	3.03295E+06
S	1.11499E-02
Cl	1.90745E+04
Ar	1.20022E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.60444E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.77174E+06
Ge	7.45811E+01
As	8.32629E+16
Se	3.25515E+08
Br	6.05099E+14
Kr	3.52921E+06
Rb	1.13142E+16
Sr	4.74929E+06
Y	6.08991E+00

Zr	2.70638E+03
Nb	4.32813E+03
Mo	1.09868E+17
Tc	1.28995E+07
Ru	3.15883E+06
Pd	1.92098E+05
Ag	1.79299E+15
Cd	8.43421E+07
In	5.01239E-06
Sn	3.25568E+06
Sb	1.86661E+16
Te	1.96286E+08
I	2.73613E-03
Xe	1.62359E+06
Cs	2.60614E+05
Ba	1.40818E+17
La	1.33340E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	5.29701E-02
Ta	7.28329E+04
W	3.94515E+15
Re	7.54275E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0549E+00	1.9179E+01
2	(0.1 -> 0.2 MeV)	7.0912E-01	4.5750E+00
3	(0.2 -> 0.4 MeV)	5.9434E-01	1.9811E+00
4	(0.4 -> 0.6 MeV)	4.7683E+00	9.5366E+00
5	(0.6 -> 0.8 MeV)	3.7043E-01	5.2918E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	6.6576E+01	5.9979E+01
8	(1.22 ->1.44 MeV)	7.5205E+01	5.6545E+01
9	(1.44 ->1.66 MeV)	9.4954E-02	6.1261E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	5.6606E+01	5.9979E+01	1.3877E+04	5.2918E-01
9.5366E+00	9.9056E-01	9.9056E-01	4.5750E+00	9.5896E+00	9.5896E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 349.02 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							

Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.9202E+10	4.4868E-13	5.5868E-05	9.8885E-02	4.7545E+02	1.2850E-08	1.5691E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
349.0 (d)		4.4871E-13	1.237079E+02	9.8887E-02	4.7545E+02	1.2850E-08	1.5692E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 349.02 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.9020E-01	1.4367E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.1836E+00	7.1836E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 349.02 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.65695E+07
He	3.60268E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.70292E-02
C	1.48943E+07
N	2.65812E+17
O	6.32508E-06
Na	1.47231E+16
Mg	4.13421E+05
Al	3.22619E+17
Si	3.03296E+06
S	1.17521E-02
Cl	1.91676E+04
Ar	1.18813E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.70439E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.77205E+06
Ge	7.46542E+01
As	8.32629E+16
Se	3.26325E+08
Br	6.05099E+14
Kr	3.53295E+06
Rb	1.13142E+16
Sr	4.83270E+06
Y	6.13350E+00
Zr	2.72054E+03
Nb	4.66355E+03
Mo	1.09868E+17
Tc	1.29787E+07
Ru	3.15901E+06
Pd	1.92186E+05
Ag	1.79299E+15
Cd	8.44610E+07
In	0.00000E+00
Sn	3.27535E+06
Sb	1.86661E+16
Te	1.98561E+08
I	2.79664E-03
Xe	1.66070E+06
Cs	2.66901E+05
Ba	1.40818E+17
La	1.33358E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	5.29702E-02
Ta	7.47360E+04
W	3.94515E+15
Re	7.59138E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.936E-04	1.951E+03	1.566E+04	4.234E-01	4.117E-03	6.057E-09	1.237081E+02
349.0 (d)	2.472E-08	5.921E+01	4.754E+02	1.285E-02	1.569E-04	4.487E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.566E+04	7.936E-04	4.117E-03	6.057E-09
349.0 (d)	4.754E+02	2.472E-08	1.569E-04	4.487E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.951E+06	7.543E-10	5.272E-05	3.175E+03
349.0 (d)	5.921E+04	5.588E-14	1.600E-06	9.889E-02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.951E+03	7.936E-04	7.543E-10	3.317E+03
349.0 (d)	5.921E+01	2.472E-08	5.588E-14	1.974E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2

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                Cold Pause of  2.87100E+07(s), i.e.     332.29 (d)     20.98 (y)

        Step   22 : Activation of  2.14200E+06(s), i.e.      24.79 (d)     21.05 (y)        Intervals :  2
                Cold Pause of  2.93940E+07(s), i.e.     340.21 (d)     21.98 (y)

        Step   23 : Activation of  2.12400E+06(s), i.e.      24.58 (d)     22.05 (y)        Intervals :  2
                Cold Pause of  2.94120E+07(s), i.e.     340.42 (d)     22.98 (y)

        Step   24 : Activation of  1.38060E+06(s), i.e.      15.98 (d)     23.03 (y)        Intervals :  2
                Cold Pause of  3.01554E+07(s), i.e.     349.02 (d)     23.98 (y)

        Step   25 : Activation of  6.89330E+05(s), i.e.       7.98 (d)     24.00 (y)        Intervals :  2

 Cooling Times (s)  :

   3.0847E+07

    357.0 (d)

 AJBRF Reactor

 Step :   1

 Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05

 Step :   2

 Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05

 Step :   3

 Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

 Step :   4

 Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

 Step :   5

 Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

 Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

 Step :   6

 Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.
```

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Elapsed Time   :      6.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04
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Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21
```

Elapsed Time : 20.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0735E-09	1.237082E+02	3.1861E+03	1.5857E+04	4.2857E-07	4.2903E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 20.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	7.3612E-13	1.237079E+02	2.6148E-01	5.6496E+02	1.5269E-08	1.8789E-04

Step : 22

Elapsed Time : 21.05 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0663E-09	1.237082E+02	3.1810E+03	1.5796E+04	4.2691E-07	4.2215E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 21.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	5.1230E-13	1.237079E+02	1.1290E-01	5.4284E+02	1.4671E-08	1.7916E-04

Step : 23

Elapsed Time : 22.05 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0661E-09	1.237082E+02	3.1808E+03	1.5773E+04	4.2629E-07	4.2122E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 22.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.9597E-13	1.237079E+02	1.0930E-01	5.2554E+02	1.4204E-08	1.7345E-04

Step : 24

Elapsed Time : 23.03 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0572E-09	1.237081E+02	3.1746E+03	1.5665E+04	4.2337E-07	4.1167E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 23.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.4871E-13	1.237079E+02	9.8887E-02	4.7545E+02	1.2850E-08	1.5692E-04

Step : 25
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 24.00 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	3.0123E+07	5.1160E-14	1.7666E-07	3.5583E-02	8.7237E+00	2.3578E-10	3.3170E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	6.4236E+10	4.8683E-13	6.0619E-05	1.0729E-01	5.1588E+02	1.3943E-08	1.7026E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	2.8074E+08	1.0599E-11	5.8786E-05	7.4962E+00	5.0617E+01	1.3680E-09	9.1038E-05	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								

Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2057E+05	6.3028E-13	4.1581E-08	2.9518E-01	1.2438E+01	3.3617E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0469E+05	1.4085E-12	1.9255E-07	3.1763E-01	5.8863E+00	1.5909E-10	9.4181E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7979E+01	2.6089E-13	9.2975E-12	5.8301E-03	1.3463E+00	3.6386E-11	8.8572E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	7.3520E+05	3.5135E-13	1.1808E-07	1.1929E-01	2.1876E+00	5.9125E-11	3.7204E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals:	8.5807E+22	6.0476E-09	1.237081E+02	3.1679E+03	1.5523E+04	4.1953E-07	4.0059E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 24.00 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.67770E+07
He	3.64780E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.72424E-02
C	1.50810E+07
N	2.65812E+17
O	6.45685E-06
Na	1.47231E+16
Mg	4.18013E+05
Al	3.22619E+17
Si	3.07099E+06
S	1.17659E-02
Cl	1.93575E+04
Ar	1.20841E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.70620E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.79393E+06
Ge	7.55160E+01
As	8.32629E+16
Se	3.29607E+08
Br	6.05099E+14

Kr	3.57353E+06
Rb	1.13142E+16
Sr	4.84543E+06
Y	6.17350E+00
Zr	2.74566E+03
Nb	4.68111E+03
Mo	1.09868E+17
Tc	1.30713E+07
Ru	3.19842E+06
Pd	1.94579E+05
Ag	1.79299E+15
Cd	8.54711E+07
In	5.01239E-06
Sn	3.29894E+06
Sb	1.86661E+16
Te	1.99572E+08
I	2.79918E-03
Xe	1.66142E+06
Cs	2.70739E+05
Ba	1.40818E+17
La	1.35010E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	5.36335E-02
Ta	7.47705E+04
W	3.94515E+15
Re	7.65507E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.9711E-01	1.6311E+01
2	(0.1 -> 0.2 MeV)	3.7672E-01	2.4305E+00
3	(0.2 -> 0.4 MeV)	3.2482E-01	1.0827E+00
4	(0.4 -> 0.6 MeV)	4.6483E+00	9.2966E+00
5	(0.6 -> 0.8 MeV)	3.6130E-01	5.1614E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	3.8735E+01	3.4896E+01
8	(1.22 ->1.44 MeV)	5.0339E+01	3.7849E+01
9	(1.44 ->1.66 MeV)	5.7800E-02	3.7290E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	3.7886E+01	3.4896E+01	1.3877E+04	5.1614E-01
9.2966E+00	5.4137E-01	5.4137E-01	2.4305E+00	8.1556E+00	8.1556E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 357.02 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							

Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.0141E+10	3.8000E-13	4.7317E-05	8.3750E-02	4.0268E+02	1.0883E-08	1.3290E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
357.0 (d)		3.8003E-13	1.237079E+02	8.3752E-02	4.0268E+02	1.0883E-08	1.3290E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 357.02 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.6926E-01	1.2168E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	6.0841E+00	6.0841E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 357.02 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.67770E+07
He	3.64780E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.72424E-02
C	1.50793E+07
N	2.65812E+17
O	6.58862E-06
Na	1.47231E+16
Mg	4.18598E+05
Al	3.22619E+17
Si	3.07100E+06
S	1.23896E-02
Cl	1.94077E+04
Ar	1.20052E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.76415E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.79425E+06
Ge	7.55891E+01
As	8.32629E+16
Se	3.30412E+08
Br	6.05099E+14
Kr	3.57719E+06
Rb	1.13142E+16
Sr	4.89322E+06
Y	6.21031E+00
Zr	2.75461E+03
Nb	5.03447E+03
Mo	1.09868E+17
Tc	1.31412E+07
Ru	3.19861E+06
Pd	1.94671E+05
Ag	1.79299E+15
Cd	8.55473E+07
In	0.00000E+00
Sn	3.31636E+06
Sb	1.86661E+16
Te	2.01062E+08
I	2.83171E-03
Xe	1.68150E+06
Cs	2.83367E+05
Ba	1.40818E+17
La	1.35028E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	5.36336E-02
Ta	7.58181E+04
W	3.94515E+15
Re	7.68721E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.920E-04	1.933E+03	1.552E+04	4.195E-01	4.006E-03	6.048E-09	1.237081E+02
357.0 (d)	2.094E-08	5.015E+01	4.027E+02	1.088E-02	1.329E-04	3.800E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.552E+04	7.920E-04	4.006E-03	6.048E-09
357.0 (d)	4.027E+02	2.094E-08	1.329E-04	3.800E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.933E+06	7.531E-10	5.224E-05	3.168E+03
357.0 (d)	5.015E+04	4.733E-14	1.355E-06	8.375E-02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.933E+03	7.920E-04	7.531E-10	3.315E+03
357.0 (d)	5.015E+01	2.094E-08	4.733E-14	1.672E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	

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Step   20 : Activation of  3.31020E+06(s), i.e.     38.31 (d)     19.09 (y)        Intervals :  2
            Cold Pause of  2.82258E+07(s), i.e.    326.69 (d)     19.98 (y)

Step   21 : Activation of  2.82600E+06(s), i.e.     32.71 (d)     20.07 (y)        Intervals :  2
            Cold Pause of  2.87100E+07(s), i.e.    332.29 (d)     20.98 (y)

Step   22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)     21.05 (y)        Intervals :  2
            Cold Pause of  2.93940E+07(s), i.e.    340.21 (d)     21.98 (y)

Step   23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)     22.05 (y)        Intervals :  2
            Cold Pause of  2.94120E+07(s), i.e.    340.42 (d)     22.98 (y)

Step   24 : Activation of  1.38060E+06(s), i.e.     15.98 (d)     23.03 (y)        Intervals :  2
            Cold Pause of  3.01554E+07(s), i.e.    349.02 (d)     23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.      7.98 (d)     24.00 (y)        Intervals :  2
            Cold Pause of  3.08467E+07(s), i.e.    357.02 (d)     24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.     27.54 (d)     25.06 (y)        Intervals :  2

Cooling Times (s)  :

  2.9157E+07

   337.5 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05

Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04
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Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time  :      12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time  :      13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time  :      13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time  :      14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time  :      14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time  :      15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time  :      15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time  :      16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time  :      16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time  :      17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time  :      17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time  :      18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time  :      18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20

Elapsed Time  :      19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26
     AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :     25.06 (y)          Cooling Time 0.

Nuclide     N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
Al 27     3.2262E+17
 K 39     4.6135E+16
 K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
 K 41     3.3294E+15
Ca 40     5.8480E+16
Ca 42     3.9031E+14
Ca 43     8.1440E+13
Ca 44     1.2584E+15
Ca 46     2.4130E+12
Ca 48     1.1281E+14
Ti 46     5.8301E+16
Ti 47     5.2577E+16
Ti 48     5.2096E+17
Ti 49     3.8231E+16
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Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.2873E+07	1.4075E-13	4.8601E-07	9.7893E-02	2.4000E+01	6.4865E-10	9.1254E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	6.7572E+10	5.1211E-13	6.3767E-05	1.1287E-01	5.4267E+02	1.4667E-08	1.7910E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.3261E+08	3.1435E-11	1.7435E-04	2.2232E+01	1.5012E+02	4.0573E-09	2.7000E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2978E-12	5.8303E-03	1.3463E+00	3.6387E-11	8.8575E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4298E+05	4.0286E-13	1.3539E-07	1.3678E-01	2.5083E+00	6.7793E-11	4.2659E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0686E-09 1.237082E+02 3.1827E+03 1.5664E+04 4.2336E-07 4.1949E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 25.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.74932E+07
He	3.80354E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.79785E-02
C	1.57240E+07
N	2.65812E+17
O	6.72040E-06
Na	1.47231E+16
Mg	4.35883E+05
Al	3.22619E+17
Si	3.20208E+06

S	1.24383E-02
Cl	2.00920E+04
Ar	1.26767E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.77513E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.87054E+06
Ge	7.87433E+01
As	8.32629E+16
Se	3.43709E+08
Br	6.05099E+14
Kr	3.72618E+06
Rb	1.13142E+16
Sr	4.98280E+06
Y	6.43049E+00
Zr	2.85413E+03
Nb	5.08622E+03
Mo	1.09868E+17
Tc	1.36217E+07
Ru	3.33501E+06
Pd	2.02935E+05
Ag	1.79299E+15
Cd	8.90369E+07
In	5.01239E-06
Sn	3.43797E+06
Sb	1.86661E+16
Te	2.06473E+08
I	2.85852E-03
Xe	1.69835E+06
Cs	3.03978E+05
Ba	1.40818E+17
La	1.40773E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	5.59234E-02
Ta	7.60838E+04
W	3.94515E+15
Re	7.94562E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.5946E-01	1.7445E+01
2	(0.1 -> 0.2 MeV)	1.1173E+00	7.2082E+00
3	(0.2 -> 0.4 MeV)	9.0379E-01	3.0126E+00
4	(0.4 -> 0.6 MeV)	4.7837E+00	9.5673E+00
5	(0.6 -> 0.8 MeV)	3.7147E-01	5.3067E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	1.0076E+02	9.0772E+01
8	(1.22 ->1.44 MeV)	1.0573E+02	7.9499E+01
9	(1.44 ->1.66 MeV)	1.4045E-01	9.0616E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.9589E+01	9.0772E+01	1.3877E+04	5.3067E-01
9.5673E+00	1.5063E+00	1.5063E+00	7.2082E+00	8.7223E+00	8.7223E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 337.46 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.3465E+10	4.0520E-13	5.0455E-05	8.9304E-02	4.2938E+02	1.1605E-08	1.4171E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
337.5 (d)		4.0523E-13	1.237079E+02	8.9305E-02	4.2938E+02	1.1605E-08	1.4171E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 337.46 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.1363E-01	1.2975E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	6.4876E+00	6.4876E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 337.46 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.74932E+07
He	3.80354E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.79785E-02
C	1.57222E+07
N	2.65812E+17
O	6.85217E-06
Na	1.47231E+16
Mg	4.36468E+05
Al	3.22619E+17
Si	3.20209E+06
S	1.30530E-02
Cl	2.02361E+04
Ar	1.25043E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.90218E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.87085E+06
Ge	7.88164E+01
As	8.32629E+16
Se	3.44519E+08
Br	6.05099E+14
Kr	3.72991E+06
Rb	1.13142E+16
Sr	5.10214E+06
Y	6.47547E+00
Zr	2.87222E+03
Nb	5.42457E+03
Mo	1.09868E+17
Tc	1.37022E+07
Ru	3.33520E+06
Pd	2.03025E+05
Ag	1.79299E+15
Cd	8.91645E+07
In	0.00000E+00
Sn	3.45796E+06
Sb	1.86661E+16
Te	2.09611E+08
I	2.95249E-03
Xe	1.75329E+06
Cs	3.00167E+05
Ba	1.40818E+17
La	1.40790E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00

Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	5.59235E-02
Ta	7.87641E+04
W	3.94515E+15
Re	8.01363E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.957E-04	1.951E+03	1.566E+04	4.234E-01	4.195E-03	6.069E-09	1.237082E+02
337.5 (d)	2.233E-08	5.347E+01	4.294E+02	1.160E-02	1.417E-04	4.052E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar

Time	Becquerel	Sv/h	ALI	Watt
zero	1.566E+04	7.957E-04	4.195E-03	6.069E-09
337.5 (d)	4.294E+02	2.233E-08	1.417E-04	4.052E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.951E+06	7.557E-10	5.272E-05	3.183E+03
337.5 (d)	5.347E+04	5.046E-14	1.445E-06	8.931E-02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.951E+03	7.957E-04	7.557E-10	3.319E+03
337.5 (d)	5.347E+01	2.233E-08	5.046E-14	1.782E-01

			Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2

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                Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    12.99 (y)

Step   14 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    13.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    13.99 (y)

Step   15 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    14.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    14.99 (y)

Step   16 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    15.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    15.99 (y)

Step   17 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    16.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    16.99 (y)

Step   18 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    17.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    17.99 (y)

Step   19 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    18.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    18.99 (y)

Step   20 : Activation of  3.31020E+06(s), i.e.     38.31 (d)    19.09 (y)      Intervals :  2
            Cold Pause of  2.82258E+07(s), i.e.    326.69 (d)    19.98 (y)

Step   21 : Activation of  2.82600E+06(s), i.e.     32.71 (d)    20.07 (y)      Intervals :  2
            Cold Pause of  2.87100E+07(s), i.e.    332.29 (d)    20.98 (y)

Step   22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)    21.05 (y)      Intervals :  2
            Cold Pause of  2.93940E+07(s), i.e.    340.21 (d)    21.98 (y)

Step   23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)    22.05 (y)      Intervals :  2
            Cold Pause of  2.94120E+07(s), i.e.    340.42 (d)    22.98 (y)

Step   24 : Activation of  1.38060E+06(s), i.e.     15.98 (d)    23.03 (y)      Intervals :  2
            Cold Pause of  3.01554E+07(s), i.e.    349.02 (d)    23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.      7.98 (d)    24.00 (y)      Intervals :  2
            Cold Pause of  3.08467E+07(s), i.e.    357.02 (d)    24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.     27.54 (d)    25.06 (y)      Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.    337.46 (d)    25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)    26.06 (y)      Intervals :  2

Cooling Times (s)  :

  2.9085E+07

   336.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05


Step :   4

Elapsed Time   :      3.07 (y)
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            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Elapsed Time   :     10.99 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22.  4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
              N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04
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Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26
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Elapsed Time : 25.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0686E-09	1.237082E+02	3.1827E+03	1.5664E+04	4.2336E-07	4.1949E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 25.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.0523E-13	1.237079E+02	8.9305E-02	4.2938E+02	1.1605E-08	1.4171E-04

Step : 27
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 26.06 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.4582E+07	1.4365E-13	4.9603E-07	9.9912E-02	2.4495E+01	6.6203E-10	9.3137E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.1347E+10	5.4073E-13	6.7330E-05	1.1917E-01	5.7299E+02	1.5486E-08	1.8911E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.5447E+08	3.2260E-11	1.7892E-04	2.2816E+01	1.5406E+02	4.1638E-09	2.7709E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4312E+05	4.0292E-13	1.3541E-07	1.3680E-01	2.5087E+00	6.7803E-11	4.2665E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								

Ba135	9.2828E+15
Ba136	1.1060E+16
Ba137	1.5817E+16
Ba138	1.0096E+17
W180	4.7342E+12
W182	1.0455E+15
W183	5.6455E+14
W184	1.2088E+15
W186	1.1216E+15

here are 81 Nuclides.

Totals: 8.5807E+22 6.0695E-09 1.237082E+02 3.1833E+03 1.5699E+04 4.2430E-07 4.2120E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 26.06 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.82309E+07
He	3.96394E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.87367E-02
C	1.63862E+07
N	2.65812E+17
O	6.98394E-06
Na	1.47231E+16
Mg	4.54288E+05
Al	3.22619E+17
Si	3.33701E+06
S	1.40817E-02
Cl	2.09420E+04
Ar	1.31945E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	3.91644E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.94943E+06
Ge	8.20670E+01
As	8.32629E+16
Se	3.58237E+08
Br	6.05099E+14
Kr	3.88346E+06
Rb	1.13142E+16
Sr	5.19594E+06
Y	6.70355E+00
Zr	2.97508E+03
Nb	5.47875E+03
Mo	1.09868E+17
Tc	1.41994E+07
Ru	3.47568E+06
Pd	2.11537E+05
Ag	1.79299E+15
Cd	9.27613E+07
In	5.01239E-06
Sn	3.58379E+06
Sb	1.86661E+16
Te	2.15229E+08
I	2.98084E-03
Xe	1.77130E+06
Cs	3.21419E+05
Ba	1.40818E+17
La	1.46709E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	5.82816E-02
Ta	7.90894E+04
W	3.94515E+15
Re	8.28080E+06

Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0104E+00	1.8371E+01
2	(0.1 -> 0.2 MeV)	1.1466E+00	7.3975E+00
3	(0.2 -> 0.4 MeV)	9.2325E-01	3.0775E+00
4	(0.4 -> 0.6 MeV)	4.7838E+00	9.5676E+00
5	(0.6 -> 0.8 MeV)	3.7148E-01	5.3069E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	1.0321E+02	9.2986E+01
8	(1.22 ->1.44 MeV)	1.0793E+02	8.1149E+01
9	(1.44 ->1.66 MeV)	1.4373E-01	9.2726E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	8.1242E+01	9.2986E+01	1.3877E+04	5.3069E-01
9.5676E+00	1.5387E+00	1.5387E+00	7.3975E+00	9.1857E+00	9.1857E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 336.64 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.6485E+10	4.2809E-13	5.3304E-05	9.4347E-02	4.5363E+02	1.2260E-08	1.4971E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Fe 59	4.5104E+06	1.7029E-13	9.4447E-07	1.2044E-01	8.1322E-01	2.1979E-11	1.4626E-06	Fe 59
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							

Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 94	1.0163E+16						
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
336.6 (d)		5.9840E-13	1.237079E+02	2.1478E-01	4.5445E+02	1.2282E-08	1.5118E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 336.64 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.5394E-01	1.3708E+01
2	(0.1 -> 0.2 MeV)	6.0525E-03	3.9048E-02
3	(0.2 -> 0.4 MeV)	7.9152E-04	2.6384E-03
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	5.0686E-01	4.5663E-01
8	(1.22 ->1.44 MeV)	4.5270E-01	3.4038E-01
9	(1.44 ->1.66 MeV)	6.9025E-04	4.4532E-04
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	3.4082E-01	4.5663E-01	0.0000E+00	0.0000E+00
2.0301E-09	1.3192E-03	1.3192E-03	3.9048E-02	6.8540E+00	6.8540E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 336.64 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.82309E+07
He	3.96394E+04
Li	0.00000E+00
Be	0.00000E+00
B	1.87367E-02
C	1.63843E+07
N	2.65812E+17
O	7.11571E-06
Na	1.47231E+16
Mg	4.54873E+05
Al	3.22619E+17
Si	3.33703E+06
S	1.47208E-02
Cl	2.10894E+04
Ar	1.30178E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	4.06235E+04
Ti	7.06679E+17

V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	1.94975E+06
Ge	8.21401E+01
As	8.32629E+16
Se	3.59047E+08
Br	6.05099E+14
Kr	3.88720E+06
Rb	1.13142E+16
Sr	5.31730E+06
Y	6.74854E+00
Zr	2.99334E+03
Nb	5.83102E+03
Mo	1.09868E+17
Tc	1.42800E+07
Ru	3.47587E+06
Pd	2.11630E+05
Ag	1.79299E+15
Cd	9.29124E+07
In	0.00000E+00
Sn	3.60378E+06
Sb	1.86661E+16
Te	2.18450E+08
I	3.07700E-03
Xe	1.82723E+06
Cs	3.17367E+05
Ba	1.40818E+17
La	1.46726E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	5.82818E-02
Ta	8.20538E+04
W	3.94515E+15
Re	8.35153E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.958E-04	1.955E+03	1.570E+04	4.243E-01	4.212E-03	6.069E-09	1.237082E+02
336.6 (d)	5.370E-08	5.659E+01	4.544E+02	1.228E-02	1.512E-04	5.984E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.570E+04	7.958E-04	4.212E-03	6.069E-09
336.6 (d)	4.544E+02	5.370E-08	1.512E-04	5.984E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.955E+06	7.559E-10	5.284E-05	3.183E+03
336.6 (d)	5.659E+04	7.452E-14	1.530E-06	2.148E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.955E+03	7.958E-04	7.559E-10	3.320E+03
336.6 (d)	5.659E+01	5.370E-08	7.452E-14	2.221E-01

Elapsed Time.

Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)		
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)		
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)		
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)		
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)		
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)		
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)		
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)		
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)		
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)		
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)		
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)		
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)		
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)		
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)		
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)		
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)		
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)		
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)		
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals :	2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)		
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals :	2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)		
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals :	2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)		
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals :	2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)		
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals :	2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)		
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals :	2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)		
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals :	2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)		
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals :	2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)		
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals :	2

Cooling Times (s) :

2.7352E+07

316.6 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0671E-09	1.237081E+02	3.1819E+03	1.5257E+04	4.1235E-07	4.0527E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.0545E-13	1.237079E+02	2.3236E-02	1.1171E+02	3.0193E-09	3.6871E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0673E-09	1.237081E+02	3.1819E+03	1.5367E+04	4.1533E-07	4.0898E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.8728E-13	1.237079E+02	4.1272E-02	1.9843E+02	5.3630E-09	6.5491E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0674E-09	1.237082E+02	3.1820E+03	1.5452E+04	4.1763E-07	4.1179E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	2.5081E-13	1.237079E+02	5.5272E-02	2.6575E+02	7.1823E-09	8.7707E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0675E-09	1.237082E+02	3.1820E+03	1.5518E+04	4.1942E-07	4.1397E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 4.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.0012E-13	1.237079E+02	6.6140E-02	3.1800E+02	8.5946E-09	1.0495E-04

Step : 5

Elapsed Time : 4.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0675E-09	1.237082E+02	3.1820E+03	1.5570E+04	4.2080E-07	4.1567E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 5.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.3840E-13	1.237079E+02	7.4577E-02	3.5856E+02	9.6909E-09	1.1834E-04

Step : 6

Elapsed Time : 5.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5610E+04	4.2188E-07	4.1698E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.6812E-13	1.237079E+02	8.1125E-02	3.9005E+02	1.0542E-08	1.2873E-04

Step : 7

Elapsed Time : 6.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5640E+04	4.2272E-07	4.1800E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.9118E-13	1.237079E+02	8.6209E-02	4.1449E+02	1.1203E-08	1.3680E-04

Step : 8

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Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :  9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

 Step :  16

 Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

 Step :  17

 Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

 Step :  18

 Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

 Step :  19

 Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

 Step :  20

 Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

 Step :  21

 Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

 Step :  22

 Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     21.98 (y)
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	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	5.1230E-13	1.237079E+02	1.1290E-01	5.4284E+02	1.4671E-08	1.7916E-04

Step : 23

Elapsed Time : 22.05 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0661E-09	1.237082E+02	3.1808E+03	1.5773E+04	4.2629E-07	4.2122E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 22.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.9597E-13	1.237079E+02	1.0930E-01	5.2554E+02	1.4204E-08	1.7345E-04

Step : 24

Elapsed Time : 23.03 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0572E-09	1.237081E+02	3.1746E+03	1.5665E+04	4.2337E-07	4.1167E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 23.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.4871E-13	1.237079E+02	9.8887E-02	4.7545E+02	1.2850E-08	1.5692E-04

Step : 25

Elapsed Time : 24.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0476E-09	1.237081E+02	3.1679E+03	1.5523E+04	4.1953E-07	4.0059E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 24.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.8003E-13	1.237079E+02	8.3752E-02	4.0268E+02	1.0883E-08	1.3290E-04

Step : 26

Elapsed Time : 25.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0686E-09	1.237082E+02	3.1827E+03	1.5664E+04	4.2336E-07	4.1949E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 25.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.0523E-13	1.237079E+02	8.9305E-02	4.2938E+02	1.1605E-08	1.4171E-04

Step : 27

Elapsed Time : 26.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0695E-09	1.237082E+02	3.1833E+03	1.5699E+04	4.2430E-07	4.2120E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 26.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	5.9840E-13	1.237079E+02	2.1478E-01	4.5445E+02	1.2282E-08	1.5118E-04

Step : 28
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 27.11 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								

V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	1.1688E+08	1.9851E-13	6.8545E-07	1.3807E-01	3.3849E+01	9.1483E-10	1.2870E-06	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	8.6705E+10	6.5712E-13	8.1823E-05	1.4482E-01	6.9633E+02	1.8820E-08	2.2981E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	1.2653E+09	4.7770E-11	2.6495E-04	3.3785E+01	2.2813E+02	6.1657E-09	4.1031E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60ml	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60ml
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7983E+01	2.6091E-13	9.2982E-12	5.8306E-03	1.3464E+00	3.6389E-11	8.8579E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4369E+05	4.0319E-13	1.3550E-07	1.3689E-01	2.5104E+00	6.7849E-11	4.2694E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0852E-09 1.237083E+02 3.1944E+03 1.5906E+04 4.2989E-07 4.3863E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 27.11 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.94904E+07
He	4.23779E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.00312E-02
C	1.75179E+07
N	2.65812E+17
O	7.24749E-06
Na	1.47231E+16
Mg	4.85716E+05
Al	3.22619E+17
Si	3.56744E+06
S	1.48143E-02

Cl	2.23348E+04
Ar	1.41559E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	4.09830E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.08413E+06
Ge	8.77417E+01
As	8.32629E+16
Se	3.83042E+08
Br	6.05099E+14
Kr	4.15202E+06
Rb	1.13142E+16
Sr	5.52916E+06
Y	7.16969E+00
Zr	3.17958E+03
Nb	5.91547E+03
Mo	1.09868E+17
Tc	1.51859E+07
Ru	3.71582E+06
Pd	2.26165E+05
Ag	1.79299E+15
Cd	9.90632E+07
In	5.01239E-06
Sn	3.83275E+06
Sb	1.86661E+16
Te	2.29041E+08
I	3.15077E-03
Xe	1.88183E+06
Cs	3.49572E+05
Ba	1.40818E+17
La	1.56846E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	6.23081E-02
Ta	8.28988E+04
W	3.94515E+15
Re	8.82560E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.2263E+00	2.2297E+01
2	(0.1 -> 0.2 MeV)	1.6979E+00	1.0954E+01
3	(0.2 -> 0.4 MeV)	1.2906E+00	4.3018E+00
4	(0.4 -> 0.6 MeV)	4.7845E+00	9.5690E+00
5	(0.6 -> 0.8 MeV)	3.7153E-01	5.3075E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	1.4938E+02	1.3458E+02
8	(1.22 ->1.44 MeV)	1.4916E+02	1.1215E+02
9	(1.44 ->1.66 MeV)	2.0518E-01	1.3237E-01
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00 2.2721E+01 2.8835E+02

2.0086E+03 4.0574E+03 1.1228E+02 1.3458E+02 1.3877E+04 5.3075E-01
9.5690E+00 2.1509E+00 2.1509E+00 1.0954E+01 1.1148E+01 1.1148E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 316.57 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	6.9606E+10	5.2753E-13	6.5687E-05	1.1626E-01	5.5901E+02	1.5108E-08	1.8449E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Fe 59	9.1292E+06	3.4467E-13	1.9116E-06	2.4377E-01	1.6460E+00	4.4487E-11	2.9604E-06	Fe 59
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 94	1.0163E+16						
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
316.6 (d)		8.7223E-13	1.237079E+02	3.6003E-01	5.6065E+02	1.5153E-08	1.8745E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 316.57 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.2909E-01	1.6892E+01
2	(0.1 -> 0.2 MeV)	1.2250E-02	7.9035E-02
3	(0.2 -> 0.4 MeV)	1.6021E-03	5.3403E-03
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	1.0259E+00	9.2425E-01
8	(1.22 ->1.44 MeV)	9.1629E-01	6.8894E-01
9	(1.44 ->1.66 MeV)	1.3812E-03	8.9110E-04
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	6.8983E-01	9.2425E-01	0.0000E+00	0.0000E+00
2.0301E-09	2.6701E-03	2.6701E-03	7.9035E-02	8.4462E+00	8.4462E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 316.57 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.94904E+07
He	4.23779E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.00312E-02
C	1.75161E+07
N	2.65812E+17
O	7.37926E-06
Na	1.47231E+16
Mg	4.86300E+05
Al	3.22619E+17
Si	3.56745E+06
S	1.54568E-02
Cl	2.25460E+04
Ar	1.39151E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	4.31562E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.08445E+06
Ge	8.78148E+01
As	8.32629E+16
Se	3.83852E+08
Br	6.05099E+14
Kr	4.15575E+06
Rb	1.13142E+16
Sr	5.68465E+06
Y	7.21479E+00
Zr	3.20014E+03
Nb	6.26703E+03
Mo	1.09868E+17
Tc	1.52666E+07
Ru	3.71601E+06
Pd	2.26259E+05
Ag	1.79299E+15
Cd	9.92811E+07
In	0.00000E+00
Sn	3.85275E+06
Sb	1.86661E+16
Te	2.33499E+08
I	3.28941E-03
Xe	1.95346E+06
Cs	3.35877E+05
Ba	1.40818E+17
La	1.56863E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00

Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	6.23082E-02
Ta	8.73872E+04
W	3.94515E+15
Re	8.92640E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.986E-04	1.981E+03	1.591E+04	4.299E-01	4.386E-03	6.085E-09	1.237083E+02
316.6 (d)	9.001E-08	6.982E+01	5.607E+02	1.515E-02	1.875E-04	8.722E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.591E+04	7.986E-04	4.386E-03	6.085E-09
316.6 (d)	5.607E+02	9.001E-08	1.875E-04	8.722E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.981E+06	7.578E-10	5.354E-05	3.194E+03
316.6 (d)	6.982E+04	1.086E-13	1.887E-06	3.600E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.981E+03	7.986E-04	7.578E-10	3.323E+03
316.6 (d)	6.982E+01	9.001E-08	1.086E-13	3.004E-01

			Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2

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                Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    12.99 (y)

Step  14 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    13.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    13.99 (y)

Step  15 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    14.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    14.99 (y)

Step  16 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    15.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    15.99 (y)

Step  17 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    16.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    16.99 (y)

Step  18 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    17.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    17.99 (y)

Step  19 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    18.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    18.99 (y)

Step  20 : Activation of  3.31020E+06(s), i.e.    38.31 (d)    19.09 (y)    Intervals :  2
           Cold Pause of  2.82258E+07(s), i.e.   326.69 (d)    19.98 (y)

Step  21 : Activation of  2.82600E+06(s), i.e.    32.71 (d)    20.07 (y)    Intervals :  2
           Cold Pause of  2.87100E+07(s), i.e.   332.29 (d)    20.98 (y)

Step  22 : Activation of  2.14200E+06(s), i.e.    24.79 (d)    21.05 (y)    Intervals :  2
           Cold Pause of  2.93940E+07(s), i.e.   340.21 (d)    21.98 (y)

Step  23 : Activation of  2.12400E+06(s), i.e.    24.58 (d)    22.05 (y)    Intervals :  2
           Cold Pause of  2.94120E+07(s), i.e.   340.42 (d)    22.98 (y)

Step  24 : Activation of  1.38060E+06(s), i.e.    15.98 (d)    23.03 (y)    Intervals :  2
           Cold Pause of  3.01554E+07(s), i.e.   349.02 (d)    23.98 (y)

Step  25 : Activation of  6.89330E+05(s), i.e.     7.98 (d)    24.00 (y)    Intervals :  2
           Cold Pause of  3.08467E+07(s), i.e.   357.02 (d)    24.98 (y)

Step  26 : Activation of  2.37945E+06(s), i.e.    27.54 (d)    25.06 (y)    Intervals :  2
           Cold Pause of  2.91565E+07(s), i.e.   337.46 (d)    25.98 (y)

Step  27 : Activation of  2.45055E+06(s), i.e.    28.36 (d)    26.06 (y)    Intervals :  2
           Cold Pause of  2.90854E+07(s), i.e.   336.64 (d)    26.98 (y)

Step  28 : Activation of  4.18396E+06(s), i.e.    48.43 (d)    27.11 (y)    Intervals :  2
           Cold Pause of  2.73520E+07(s), i.e.   316.57 (d)    27.98 (y)

Step  29 : Activation of  3.16070E+06(s), i.e.    36.58 (d)    28.08 (y)    Intervals :  2

Cooling Times (s)  :

  2.8375E+07

  328.4 (d)

AJBRF Reactor


Step :  1

Elapsed Time   :    26.35 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :   365.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :  2

Elapsed Time   :     1.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     2.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :  3

Elapsed Time   :     2.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     3.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11
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Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04


Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04


Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04


Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04


Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04


Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04


Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04


Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

 Step :  19

 Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

 Step :  20

 Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

 Step :  21

 Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

 Step :  22

 Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

 Step :  23

 Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

 Step :  24

 Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

 Step :  25

 Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     24.98 (y)
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	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.8003E-13	1.237079E+02	8.3752E-02	4.0268E+02	1.0883E-08	1.3290E-04

Step : 26

Elapsed Time : 25.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0686E-09	1.237082E+02	3.1827E+03	1.5664E+04	4.2336E-07	4.1949E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 25.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.0523E-13	1.237079E+02	8.9305E-02	4.2938E+02	1.1605E-08	1.4171E-04

Step : 27

Elapsed Time : 26.06 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0695E-09	1.237082E+02	3.1833E+03	1.5699E+04	4.2430E-07	4.2120E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 26.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	5.9840E-13	1.237079E+02	2.1478E-01	4.5445E+02	1.2282E-08	1.5118E-04

Step : 28

Elapsed Time : 27.11 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0852E-09	1.237083E+02	3.1944E+03	1.5906E+04	4.2989E-07	4.3863E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 27.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	8.7223E-13	1.237079E+02	3.6003E-01	5.6065E+02	1.5153E-08	1.8745E-04

Step : 29
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 28.08 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	9.9804E+07	1.6950E-13	5.8530E-07	1.1789E-01	2.8903E+01	7.8117E-10	1.0990E-06	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	9.2200E+10	6.9877E-13	8.7008E-05	1.5400E-01	7.4046E+02	2.0012E-08	2.4438E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	1.0411E+09	3.9306E-11	2.1800E-04	2.7799E+01	1.8771E+02	5.0732E-09	3.3760E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								

Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7983E+01	2.6091E-13	9.2982E-12	5.8305E-03	1.3464E+00	3.6389E-11	8.8579E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4363E+05	4.0316E-13	1.3549E-07	1.3688E-01	2.5102E+00	6.7844E-11	4.2691E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals:	8.5807E+22	6.0767E-09	1.237083E+02	3.1884E+03	1.5905E+04	4.2986E-07	4.3279E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 28.08 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.04418E+07
He	4.44466E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.10091E-02
C	1.83724E+07
N	2.65812E+17
O	7.51103E-06
Na	1.47231E+16
Mg	5.09453E+05
Al	3.22619E+17
Si	3.74167E+06
S	1.55319E-02
Cl	2.34700E+04
Ar	1.47915E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	4.34257E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.18589E+06
Ge	9.20285E+01
As	8.32629E+16
Se	4.01781E+08
Br	6.05099E+14
Kr	4.35489E+06
Rb	1.13142E+16
Sr	5.82371E+06
Y	7.52193E+00
Zr	3.33677E+03
Nb	6.33347E+03
Mo	1.09868E+17

Tc	1.59312E+07
Ru	3.89724E+06
Pd	2.37239E+05
Ag	1.79299E+15
Cd	1.03930E+08
In	5.01239E-06
Sn	4.02083E+06
Sb	1.86661E+16
Te	2.41134E+08
I	3.33447E-03
Xe	1.98472E+06
Cs	3.62678E+05
Ba	1.40818E+17
La	1.64503E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	6.53498E-02
Ta	8.79741E+04
W	3.94515E+15
Re	9.27828E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.2939E+00	2.3525E+01
2	(0.1 -> 0.2 MeV)	1.3970E+00	9.0131E+00
3	(0.2 -> 0.4 MeV)	1.0951E+00	3.6504E+00
4	(0.4 -> 0.6 MeV)	4.7844E+00	9.5688E+00
5	(0.6 -> 0.8 MeV)	3.7152E-01	5.3075E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	1.2419E+02	1.1188E+02
8	(1.22 ->1.44 MeV)	1.2666E+02	9.5232E+01
9	(1.44 ->1.66 MeV)	1.7164E-01	1.1074E-01
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	9.5343E+01	1.1188E+02	1.3877E+04	5.3075E-01
9.5688E+00	1.8252E+00	1.8252E+00	9.0131E+00	1.1763E+01	1.1763E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 328.42 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							

Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	7.3412E+10	5.5637E-13	6.9278E-05	1.2262E-01	5.8957E+02	1.5934E-08	1.9458E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Fe 59	6.2461E+06	2.3582E-13	1.3079E-06	1.6678E-01	1.1262E+00	3.0437E-11	2.0255E-06	Fe 59
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8,3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 94	1.0163E+16						
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
328.4 (d)		7.9222E-13	1.237079E+02	2.8940E-01	5.9070E+02	1.5965E-08	1.9661E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 328.42 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.7988E-01	1.7816E+01
2	(0.1 -> 0.2 MeV)	8.3816E-03	5.4075E-02
3	(0.2 -> 0.4 MeV)	1.0961E-03	3.6537E-03
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	7.0191E-01	6.3235E-01
8	(1.22 ->1.44 MeV)	6.2691E-01	4.7136E-01
9	(1.44 ->1.66 MeV)	9.4990E-04	6.1284E-04
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	4.7198E-01	6.3235E-01	0.0000E+00	0.0000E+00

2.0301E-09 1.8269E-03 1.8269E-03 5.4075E-02 8.9080E+00 8.9080E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 328.42 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.04418E+07
He	4.44466E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.10091E-02
C	1.83704E+07
N	2.65812E+17
O	7.64280E-06
Na	1.47231E+16
Mg	5.10037E+05
Al	3.22619E+17
Si	3.74168E+06
S	1.62310E-02
Cl	2.36468E+04
Ar	1.45826E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	4.54114E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.18620E+06
Ge	9.21017E+01
As	8.32629E+16
Se	4.02591E+08
Br	6.05099E+14
Kr	4.35862E+06
Rb	1.13142E+16
Sr	5.96216E+06
Y	7.56702E+00
Zr	3.35636E+03
Nb	6.71909E+03
Mo	1.09868E+17
Tc	1.60118E+07
Ru	3.89743E+06
Pd	2.37341E+05
Ag	1.79299E+15
Cd	1.04145E+08
In	0.00000E+00
Sn	4.04083E+06
Sb	1.86661E+16
Te	2.44930E+08
I	3.45012E-03
Xe	2.04882E+06
Cs	3.55176E+05
Ba	1.40818E+17
La	1.64521E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	6.53499E-02
Ta	9.18700E+04
W	3.94515E+15
Re	9.36372E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.971E-04	1.981E+03	1.590E+04	4.299E-01	4.328E-03	6.077E-09	1.237083E+02

328.4 (d)	7.235E-08	7.356E+01	5.907E+02	1.596E-02	1.966E-04	7.922E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.590E+04	7.971E-04	4.328E-03	6.077E-09
328.4 (d)	5.907E+02	7.235E-08	1.966E-04	7.922E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.981E+06	7.568E-10	5.353E-05	3.188E+03
328.4 (d)	7.356E+04	9.866E-14	1.988E-06	2.894E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.981E+03	7.971E-04	7.568E-10	3.321E+03
328.4 (d)	7.356E+01	7.235E-08	9.866E-14	2.915E-01

			Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	

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Step   22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)     21.05 (y)        Intervals :  2
            Cold Pause of  2.93940E+07(s), i.e.    340.21 (d)     21.98 (y)

Step   23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)     22.05 (y)        Intervals :  2
            Cold Pause of  2.94120E+07(s), i.e.    340.42 (d)     22.98 (y)

Step   24 : Activation of  1.38060E+06(s), i.e.     15.98 (d)     23.03 (y)        Intervals :  2
            Cold Pause of  3.01554E+07(s), i.e.    349.02 (d)     23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.      7.98 (d)     24.00 (y)        Intervals :  2
            Cold Pause of  3.08467E+07(s), i.e.    357.02 (d)     24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.     27.54 (d)     25.06 (y)        Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.    337.46 (d)     25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)     26.06 (y)        Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.    336.64 (d)     26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.     48.43 (d)     27.11 (y)        Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.    316.57 (d)     27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.     36.58 (d)     28.08 (y)        Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.    328.42 (d)     28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)     29.11 (y)        Intervals :  2

Cooling Times (s)  :

  2.7245E+07

   315.3 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04


Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
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Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03.  1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04
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Step :  13

Elapsed Time    :     12.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     12.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time    :     13.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     13.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time    :     14.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time    :     15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time    :     16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time    :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time    :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time    :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20
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Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
         Production of  H  :       0. appm/y.
```

Production of He : 0. appm/y.

Elapsed Time : 26.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	5.9840E-13	1.237079E+02	2.1478E-01	4.5445E+02	1.2282E-08	1.5118E-04

Step : 28

Elapsed Time : 27.11 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0852E-09	1.237083E+02	3.1944E+03	1.5906E+04	4.2989E-07	4.3863E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 27.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	8.7223E-13	1.237079E+02	3.6003E-01	5.6065E+02	1.5153E-08	1.8745E-04

Step : 29

Elapsed Time : 28.08 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0767E-09	1.237083E+02	3.1884E+03	1.5905E+04	4.2986E-07	4.3279E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 28.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	7.9222E-13	1.237079E+02	2.8940E-01	5.9070E+02	1.5965E-08	1.9661E-04

Step : 30
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 29.11 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	1.1840E+08	2.0108E-13	6.9433E-07	1.3985E-01	3.4287E+01	9.2668E-10	1.3037E-06	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	1.0382E+11	7.8681E-13	9.7972E-05	1.7341E-01	8.3376E+02	2.2534E-08	2.7517E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	1.2875E+09	4.8608E-11	2.6959E-04	3.4378E+01	2.3213E+02	6.2738E-09	4.1750E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2
Zn 70	2.9733E+14							

As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04 (My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7984E+01	2.6091E-13	9.2984E-12	5.8306E-03	1.3464E+00	3.6390E-11	8.8580E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4369E+05	4.0319E-13	1.3550E-07	1.3689E-01	2.5104E+00	6.7850E-11	4.2694E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0861E-09 1.237083E+02 3.1950E+03 1.6048E+04 4.3373E-07 4.4388E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 29.11 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.17335E+07
He	4.72551E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.23366E-02
C	1.95330E+07
N	2.65812E+17
O	7.77458E-06
Na	1.47231E+16
Mg	5.41681E+05
Al	3.22619E+17
Si	3.97810E+06
S	1.63384E-02
Cl	2.49263E+04
Ar	1.57470E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	4.58234E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.32403E+06
Ge	9.78484E+01
As	8.32629E+16
Se	4.27220E+08
Br	6.05099E+14
Kr	4.63031E+06
Rb	1.13142E+16
Sr	6.18203E+06
Y	8.00010E+00
Zr	3.54782E+03
Nb	6.81191E+03
Mo	1.09868E+17
Tc	1.69430E+07
Ru	4.14354E+06
Pd	2.52249E+05
Ag	1.79299E+15
Cd	1.10460E+08
In	5.01239E-06
Sn	4.27617E+06
Sb	1.86661E+16
Te	2.55845E+08
I	3.52723E-03

Xe	2.10609E+06
Cs	3.88114E+05
Ba	1.40818E+17
La	1.74900E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	6.94792E-02
Ta	9.28020E+04
W	3.94515E+15
Re	9.85111E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.4553E+00	2.6459E+01
2	(0.1 -> 0.2 MeV)	1.7277E+00	1.1146E+01
3	(0.2 -> 0.4 MeV)	1.3083E+00	4.3609E+00
4	(0.4 -> 0.6 MeV)	4.7845E+00	9.5690E+00
5	(0.6 -> 0.8 MeV)	3.7153E-01	5.3075E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	1.5187E+02	1.3682E+02
8	(1.22 ->1.44 MeV)	1.5139E+02	1.1383E+02
9	(1.44 ->1.66 MeV)	2.0850E-01	1.3452E-01
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	1.1396E+02	1.3682E+02	1.3877E+04	5.3075E-01
9.5690E+00	2.1805E+00	2.1805E+00	1.1146E+01	1.3230E+01	1.3230E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 315.34 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							

Fe 54	4.9638E+21							
Fe 55	8.3416E+10	6.3219E-13	7.8719E-05	1.3933E-01	6.6991E+02	1.8106E-08	2.2109E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Fe 59	9.4703E+06	3.5755E-13	1.9831E-06	2.5287E-01	1.7075E+00	4.6148E-11	3.0710E-06	Fe 59
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 94	1.0163E+16						
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
315.3 (d)		9.8976E-13	1.237079E+02	3.9220E-01	6.7162E+02	1.8152E-08	2.2417E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 315.34 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1134E+00	2.0244E+01
2	(0.1 -> 0.2 MeV)	1.2708E-02	8.1988E-02
3	(0.2 -> 0.4 MeV)	1.6619E-03	5.5398E-03
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	1.0642E+00	9.5877E-01
8	(1.22 ->1.44 MeV)	9.5053E-01	7.1468E-01
9	(1.44 ->1.66 MeV)	1.4322E-03	9.2402E-04
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	7.1561E-01	9.5877E-01	0.0000E+00	0.0000E+00
2.0301E-09	2.7699E-03	2.7699E-03	8.1988E-02	1.0122E+01	1.0122E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 315.34 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.17335E+07
He	4.72551E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.23366E-02
C	1.95310E+07
N	2.65812E+17
O	7.90635E-06
Na	1.47231E+16
Mg	5.42265E+05
Al	3.22619E+17
Si	3.97811E+06
S	1.70520E-02
Cl	2.51408E+04
Ar	1.54998E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	4.81507E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.32435E+06
Ge	9.79215E+01
As	8.32629E+16
Se	4.28030E+08
Br	6.05099E+14
Kr	4.63404E+06
Rb	1.13142E+16
Sr	6.33891E+06
Y	8.04520E+00
Zr	3.56845E+03
Nb	7.20470E+03
Mo	1.09868E+17
Tc	1.70236E+07
Ru	4.14373E+06
Pd	2.52352E+05
Ag	1.79299E+15
Cd	1.10705E+08
In	0.00000E+00
Sn	4.29617E+06
Sb	1.86661E+16
Te	2.60380E+08
I	3.66802E-03
Xe	2.17829E+06
Cs	3.75745E+05
Ba	1.40818E+17
La	1.74917E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	6.94794E-02
Ta	9.74972E+04
W	3.94515E+15
Re	9.95413E+06
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.987E-04	1.998E+03	1.605E+04	4.337E-01	4.439E-03	6.086E-09	1.237083E+02
315.3 (d)	9.805E-08	8.364E+01	6.716E+02	1.815E-02	2.242E-04	9.898E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.605E+04	7.987E-04	4.439E-03	6.086E-09
315.3 (d)	6.716E+02	9.805E-08	2.242E-04	9.898E-13

Attachment H1: ANITA Output for Rebar Based on Long Term Multi Year Activation

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

AJBRF Soil (Side) Flux

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.998E+06	7.579E-10	5.401E-05	3.195E+03
315.3 (d)	8.364E+04	1.233E-13	2.261E-06	3.922E-01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

AJBRF Soil (Side) Flux

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.998E+03	7.987E-04	7.579E-10	3.323E+03
315.3 (d)	8.364E+01	9.805E-08	1.233E-13	3.490E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals : 2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)	
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals : 2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)	
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals : 2

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                Cold Pause of  3.08467E+07(s), i.e.     357.02 (d)     24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.      27.54 (d)     25.06 (y)        Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.     337.46 (d)     25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.      28.36 (d)     26.06 (y)        Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.     336.64 (d)     26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.      48.43 (d)     27.11 (y)        Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.     316.57 (d)     27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.      36.58 (d)     28.08 (y)        Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.     328.42 (d)     28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.      49.66 (d)     29.11 (y)        Intervals :  2
            Cold Pause of  2.72450E+07(s), i.e.     315.34 (d)     29.98 (y)

Step   31 : Activation of  2.37474E+06(s), i.e.      27.49 (d)     30.05 (y)        Intervals :  2

Cooling Times (s)  :

  2.9161E+07

   337.5 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04


Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04


Step :   6
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Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     12.99 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04


 Step :  14

 Elapsed Time   :     13.06 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     13.99 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04


 Step :  15

 Elapsed Time   :     14.06 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     14.99 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04


 Step :  16

 Elapsed Time   :     15.06 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     15.99 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04


 Step :  17

 Elapsed Time   :     16.06 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     16.99 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04


 Step :  18

 Elapsed Time   :     17.06 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     17.99 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04


 Step :  19

 Elapsed Time   :     18.06 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     18.99 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04


 Step :  20

 Elapsed Time   :     19.09 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     19.98 (y)
```

```
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     20.98 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     21.98 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     22.98 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     23.98 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

Step :  25

Elapsed Time   :     24.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     24.98 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26

Elapsed Time   :     25.06 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     25.98 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04

Step :  27

Elapsed Time   :     26.06 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     26.98 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.9840E-13 1.237079E+02   2.1478E-01   4.5445E+02   1.2282E-08   1.5118E-04
```

Step : 28

Elapsed Time : 27.11 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0852E-09	1.237083E+02	3.1944E+03	1.5906E+04	4.2989E-07	4.3863E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 27.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	8.7223E-13	1.237079E+02	3.6003E-01	5.6065E+02	1.5153E-08	1.8745E-04

Step : 29

Elapsed Time : 28.08 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0767E-09	1.237083E+02	3.1884E+03	1.5905E+04	4.2986E-07	4.3279E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 28.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	7.9222E-13	1.237079E+02	2.8940E-01	5.9070E+02	1.5965E-08	1.9661E-04

Step : 30

Elapsed Time : 29.11 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0861E-09	1.237083E+02	3.1950E+03	1.6048E+04	4.3373E-07	4.4388E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 29.98 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	9.8976E-13	1.237079E+02	3.9220E-01	6.7162E+02	1.8152E-08	2.2417E-04

Step : 31
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 30.05 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03 (My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11 (My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.2779E+07	1.4059E-13	4.8546E-07	9.7782E-02	2.3973E+01	6.4791E-10	9.1151E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	1.0018E+11	7.5927E-13	9.4543E-05	1.6734E-01	8.0458E+02	2.1745E-08	2.6554E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.3676E+08	3.1591E-11	1.7522E-04	2.2343E+01	1.5087E+02	4.0775E-09	2.7134E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								

Zn 68 9.3164E+15
AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04 (My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7982E+01	2.6090E-13	9.2981E-12	5.8305E-03	1.3464E+00	3.6389E-11	8.8578E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4297E+05	4.0285E-13	1.3539E-07	1.3678E-01	2.5083E+00	6.7792E-11	4.2658E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0690E-09 1.237082E+02 3.1829E+03 1.5927E+04 4.3046E-07 4.2826E-03
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 30.05 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.24484E+07
He	4.88095E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.30713E-02
C	2.01743E+07
N	2.65812E+17
O	8.03812E-06
Na	1.47231E+16
Mg	5.59514E+05
Al	3.22619E+17
Si	4.10894E+06
S	1.71147E-02
Cl	2.58239E+04
Ar	1.61691E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	4.83333E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.40049E+06
Ge	1.01069E+02
As	8.32629E+16
Se	4.41299E+08
Br	6.05099E+14
Kr	4.78273E+06
Rb	1.13142E+16
Sr	6.42820E+06
Y	8.26486E+00
Zr	3.66775E+03
Nb	7.26060E+03
Mo	1.09868E+17
Tc	1.75030E+07
Ru	4.27987E+06
Pd	2.60603E+05
Ag	1.79299E+15

Cd	1.14197E+08
In	5.01239E-06
Sn	4.41749E+06
Sb	1.86661E+16
Te	2.65802E+08
I	3.69486E-03
Xe	2.19507E+06
Cs	3.96626E+05
Ba	1.40818E+17
La	1.80653E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	7.17646E-02
Ta	9.78736E+04
W	3.94515E+15
Re	1.02130E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.3947E+00	2.5359E+01
2	(0.1 -> 0.2 MeV)	1.1228E+00	7.2441E+00
3	(0.2 -> 0.4 MeV)	9.0366E-01	3.0122E+00
4	(0.4 -> 0.6 MeV)	4.7836E+00	9.5673E+00
5	(0.6 -> 0.8 MeV)	3.7147E-01	5.3067E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	1.0122E+02	9.1192E+01
8	(1.22 ->1.44 MeV)	1.0615E+02	7.9812E+01
9	(1.44 ->1.66 MeV)	1.4108E-01	9.1017E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.9903E+01	9.1192E+01	1.3877E+04	5.3067E-01
9.5673E+00	1.5061E+00	1.5061E+00	7.2441E+00	1.2679E+01	1.2679E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 337.52 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50

V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	7.9266E+10	6.0074E-13	7.4803E-05	1.3240E-01	6.3659E+02	1.7205E-08	2.1010E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
337.5 (d)		6.0077E-13	1.237079E+02	1.3240E-01	6.3659E+02	1.7205E-08	2.1010E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 337.52 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0580E+00	1.9237E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	9.6183E+00	9.6183E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 337.52 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.24484E+07
He	4.88095E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.30713E-02
C	2.01721E+07
N	2.65812E+17
O	8.16989E-06
Na	1.47231E+16
Mg	5.60098E+05
Al	3.22619E+17
Si	4.10895E+06
S	1.79037E-02
Cl	2.59680E+04
Ar	1.59888E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.00493E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.40080E+06
Ge	1.01142E+02
As	8.32629E+16
Se	4.42109E+08
Br	6.05099E+14
Kr	4.78646E+06
Rb	1.13142E+16
Sr	6.54741E+06
Y	8.30983E+00
Zr	3.68582E+03
Nb	7.70012E+03
Mo	1.09868E+17
Tc	1.75835E+07
Ru	4.28007E+06
Pd	2.60717E+05
Ag	1.79299E+15
Cd	1.14398E+08
In	0.00000E+00
Sn	4.43748E+06
Sb	1.86661E+16
Te	2.68999E+08
I	3.78888E-03
Xe	2.24994E+06
Cs	3.96551E+05
Ba	1.40818E+17
La	1.80670E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	7.17647E-02
Ta	1.01110E+05
W	3.94515E+15
Re	1.02842E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.957E-04	1.983E+03	1.593E+04	4.305E-01	4.283E-03	6.069E-09	1.237082E+02
337.5 (d)	3.310E-08	7.928E+01	6.366E+02	1.721E-02	2.101E-04	6.008E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.593E+04	7.957E-04	4.283E-03	6.069E-09
337.5 (d)	6.366E+02	3.310E-08	2.101E-04	6.008E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.983E+06	7.558E-10	5.361E-05	3.183E+03
337.5 (d)	7.928E+04	7.482E-14	2.143E-06	1.324E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.983E+03	7.957E-04	7.558E-10	3.319E+03
337.5 (d)	7.928E+01	3.310E-08	7.482E-14	2.643E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals : 2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)	

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Step   24 : Activation of  1.38060E+06(s), i.e.     15.98 (d)     23.03 (y)        Intervals :  2
            Cold Pause of  3.01554E+07(s), i.e.    349.02 (d)     23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.      7.98 (d)     24.00 (y)        Intervals :  2
            Cold Pause of  3.08467E+07(s), i.e.    357.02 (d)     24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.     27.54 (d)     25.06 (y)        Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.    337.46 (d)     25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)     26.06 (y)        Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.    336.64 (d)     26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.     48.43 (d)     27.11 (y)        Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.    316.57 (d)     27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.     36.58 (d)     28.08 (y)        Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.    328.42 (d)     28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)     29.11 (y)        Intervals :  2
            Cold Pause of  2.72450E+07(s), i.e.    315.34 (d)     29.98 (y)

Step   31 : Activation of  2.37474E+06(s), i.e.     27.49 (d)     30.05 (y)        Intervals :  2
            Cold Pause of  2.91613E+07(s), i.e.    337.52 (d)     30.98 (y)

Step   32 : Activation of  1.67827E+06(s), i.e.     19.42 (d)     31.03 (y)        Intervals :  2

Cooling Times (s)  :

  2.9858E+07

   345.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05

Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
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        Production of He  :       0. appm/y.

Elapsed Time   :       5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :       5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :       6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :       7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :       8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :       9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :       9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :      10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :      11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20
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Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.9840E-13 1.237079E+02   2.1478E-01   4.5445E+02   1.2282E-08   1.5118E-04

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0852E-09 1.237083E+02   3.1944E+03   1.5906E+04   4.2989E-07   4.3863E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   8.7223E-13 1.237079E+02   3.6003E-01   5.6065E+02   1.5153E-08   1.8745E-04

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0767E-09 1.237083E+02   3.1884E+03   1.5905E+04   4.2986E-07   4.3279E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.9222E-13 1.237079E+02   2.8940E-01   5.9070E+02   1.5965E-08   1.9661E-04

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0861E-09 1.237083E+02   3.1950E+03   1.6048E+04   4.3373E-07   4.4388E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   9.8976E-13 1.237079E+02   3.9220E-01   6.7162E+02   1.8152E-08   2.2417E-04

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0690E-09 1.237082E+02   3.1829E+03   1.5927E+04   4.3046E-07   4.2826E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0077E-13 1.237079E+02   1.3240E-01   6.3659E+02   1.7205E-08   2.1010E-04

Step :  32
    AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :     31.03 (y)          Cooling Time 0.

Nuclide     N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
Al 27     3.2262E+17
 K 39     4.6135E+16
 K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
 K 41     3.3294E+15
Ca 40     5.8480E+16
Ca 42     3.9031E+14
Ca 43     8.1440E+13
Ca 44     1.2584E+15
Ca 46     2.4130E+12
Ca 48     1.1281E+14
Ti 46     5.8301E+16
Ti 47     5.2577E+16
Ti 48     5.2096E+17
Ti 49     3.8231E+16
Ti 50     3.6606E+16
 V 50     4.7693E+14   1.2289E-23   8.3329E+01   9.5324E-12   7.0337E-11   1.9010E-21   3.4479E-16   1.489E+11(My)    V 50
 V 51     1.9029E+17
Cr 50     5.2922E+18
Cr 51     6.4071E+07   1.0882E-13   3.7574E-07   7.5683E-02   1.8555E+01   5.0149E-10   7.0551E-07   2.770E+01 (d)    Cr 51
Cr 52     1.0206E+20
Cr 53     1.1571E+19
Cr 54     2.8806E+18
Cr 55     2.4728E+02   1.4229E-13   4.3606E-11   4.2634E-04   8.0689E-01   2.1808E-11   1.1301E-09   3.540E+00 (m)    Cr 55
Mn 55     8.2737E+20
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Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	9.1206E+10	6.9123E-13	8.6070E-05	1.5234E-01	7.3247E+02	1.9797E-08	2.4174E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	6.2586E+08	2.3629E-11	1.3105E-04	1.6712E+01	1.1284E+02	3.0498E-09	2.0296E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60ml	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60ml
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0991E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4792E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04 (My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3463E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.3797E+05	4.0046E-13	1.3459E-07	1.3597E-01	2.4934E+00	6.7390E-11	4.2405E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals:	8.5807E+22	6.0610E-09	1.237082E+02	3.1772E+03	1.5812E+04	4.2734E-07	4.1902E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 31.03 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.29536E+07
He	4.99080E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.35906E-02
C	2.06268E+07
N	2.65812E+17
O	8.30166E-06
Na	1.47231E+16
Mg	5.72116E+05
Al	3.22619E+17
Si	4.20151E+06
S	1.89259E-02
Cl	2.64430E+04
Ar	1.64696E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.01385E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20

Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.45452E+06
Ge	1.03346E+02
As	8.32629E+16
Se	4.51249E+08
Br	6.05099E+14
Kr	4.89044E+06
Rb	1.13142E+16
Sr	6.59899E+06
Y	8.45247E+00
Zr	3.75310E+03
Nb	7.74113E+03
Mo	1.09868E+17
Tc	1.78992E+07
Ru	4.37623E+06
Pd	2.66548E+05
Ag	1.79299E+15
Cd	1.16862E+08
In	5.01239E-06
Sn	4.51748E+06
Sb	1.86661E+16
Te	2.72510E+08
I	3.80291E-03
Xe	2.25733E+06
Cs	4.10685E+05
Ba	1.40818E+17
La	1.84720E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	7.33796E-02
Ta	1.01290E+05
W	3.94515E+15
Re	1.04613E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.2686E+00	2.3065E+01
2	(0.1 -> 0.2 MeV)	8.3985E-01	5.4184E+00
3	(0.2 -> 0.4 MeV)	6.9566E-01	2.3189E+00
4	(0.4 -> 0.6 MeV)	4.7778E+00	9.5556E+00
5	(0.6 -> 0.8 MeV)	3.7108E-01	5.3011E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	7.7524E+01	6.9841E+01
8	(1.22 ->1.44 MeV)	8.4983E+01	6.3897E+01
9	(1.44 ->1.66 MeV)	1.0953E-01	7.0663E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	6.3968E+01	6.9841E+01	1.3877E+04	5.3011E-01
9.5556E+00	1.1594E+00	1.1594E+00	5.4184E+00	1.1533E+01	1.1533E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 345.58 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	7.1760E+10	5.4385E-13	6.7719E-05	1.1986E-01	5.7631E+02	1.5576E-08	1.9020E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
345.6 (d)		5.4388E-13	1.237079E+02	1.1986E-01	5.7631E+02	1.5576E-08	1.9020E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 345.58 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.5782E-01	1.7415E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00

6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	8.7075E+00	8.7075E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 345.58 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.29536E+07
He	4.99080E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.35906E-02
C	2.06244E+07
N	2.65812E+17
O	8.43344E-06
Na	1.47231E+16
Mg	5.72700E+05
Al	3.22619E+17
Si	4.20152E+06
S	1.97519E-02
Cl	2.65525E+04
Ar	1.63223E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.13589E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.45483E+06
Ge	1.03419E+02
As	8.32629E+16
Se	4.52059E+08
Br	6.05099E+14
Kr	4.89418E+06
Rb	1.13142E+16
Sr	6.69476E+06
Y	8.49684E+00
Zr	3.76878E+03
Nb	8.20471E+03
Mo	1.09868E+17
Tc	1.79792E+07
Ru	4.37643E+06
Pd	2.66668E+05
Ag	1.79299E+15
Cd	1.17012E+08
In	0.00000E+00
Sn	4.53734E+06
Sb	1.86661E+16
Te	2.75071E+08
I	3.87420E-03
Xe	2.30057E+06
Cs	4.17070E+05
Ba	1.40818E+17
La	1.84737E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00

Lu	0.00000E+00
Hf	7.33798E-02
Ta	1.03578E+05
W	3.94515E+15
Re	1.05166E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.943E-04	1.969E+03	1.581E+04	4.273E-01	4.190E-03	6.061E-09	1.237082E+02
345.6 (d)	2.997E-08	7.177E+01	5.763E+02	1.558E-02	1.902E-04	5.439E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.581E+04	7.943E-04	4.190E-03	6.061E-09
345.6 (d)	5.763E+02	2.997E-08	1.902E-04	5.439E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.969E+06	7.548E-10	5.322E-05	3.177E+03
345.6 (d)	7.177E+04	6.773E-14	1.940E-06	1.199E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.969E+03	7.943E-04	7.548E-10	3.318E+03
345.6 (d)	7.177E+01	2.997E-08	6.773E-14	2.392E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	

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Step  17 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    16.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    16.99 (y)

Step  18 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    17.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    17.99 (y)

Step  19 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    18.06 (y)    Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    18.99 (y)

Step  20 : Activation of  3.31020E+06(s), i.e.    38.31 (d)    19.09 (y)    Intervals :  2
           Cold Pause of  2.82258E+07(s), i.e.   326.69 (d)    19.98 (y)

Step  21 : Activation of  2.82600E+06(s), i.e.    32.71 (d)    20.07 (y)    Intervals :  2
           Cold Pause of  2.87100E+07(s), i.e.   332.29 (d)    20.98 (y)

Step  22 : Activation of  2.14200E+06(s), i.e.    24.79 (d)    21.05 (y)    Intervals :  2
           Cold Pause of  2.93940E+07(s), i.e.   340.21 (d)    21.98 (y)

Step  23 : Activation of  2.12400E+06(s), i.e.    24.58 (d)    22.05 (y)    Intervals :  2
           Cold Pause of  2.94120E+07(s), i.e.   340.42 (d)    22.98 (y)

Step  24 : Activation of  1.38060E+06(s), i.e.    15.98 (d)    23.03 (y)    Intervals :  2
           Cold Pause of  3.01554E+07(s), i.e.   349.02 (d)    23.98 (y)

Step  25 : Activation of  6.89330E+05(s), i.e.     7.98 (d)    24.00 (y)    Intervals :  2
           Cold Pause of  3.08467E+07(s), i.e.   357.02 (d)    24.98 (y)

Step  26 : Activation of  2.37945E+06(s), i.e.    27.54 (d)    25.06 (y)    Intervals :  2
           Cold Pause of  2.91565E+07(s), i.e.   337.46 (d)    25.98 (y)

Step  27 : Activation of  2.45055E+06(s), i.e.    28.36 (d)    26.06 (y)    Intervals :  2
           Cold Pause of  2.90854E+07(s), i.e.   336.64 (d)    26.98 (y)

Step  28 : Activation of  4.18396E+06(s), i.e.    48.43 (d)    27.11 (y)    Intervals :  2
           Cold Pause of  2.73520E+07(s), i.e.   316.57 (d)    27.98 (y)

Step  29 : Activation of  3.16070E+06(s), i.e.    36.58 (d)    28.08 (y)    Intervals :  2
           Cold Pause of  2.83753E+07(s), i.e.   328.42 (d)    28.98 (y)

Step  30 : Activation of  4.29096E+06(s), i.e.    49.66 (d)    29.11 (y)    Intervals :  2
           Cold Pause of  2.72450E+07(s), i.e.   315.34 (d)    29.98 (y)

Step  31 : Activation of  2.37474E+06(s), i.e.    27.49 (d)    30.05 (y)    Intervals :  2
           Cold Pause of  2.91613E+07(s), i.e.   337.52 (d)    30.98 (y)

Step  32 : Activation of  1.67827E+06(s), i.e.    19.42 (d)    31.03 (y)    Intervals :  2
           Cold Pause of  2.98577E+07(s), i.e.   345.58 (d)    31.98 (y)

Step  33 : Activation of  1.58702E+06(s), i.e.    18.37 (d)    32.03 (y)    Intervals :  2

Cooling Times (s)  :

  2.9949E+07

   346.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
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Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04
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Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
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            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
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Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.9840E-13 1.237079E+02   2.1478E-01   4.5445E+02   1.2282E-08   1.5118E-04

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0852E-09 1.237083E+02   3.1944E+03   1.5906E+04   4.2989E-07   4.3863E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   8.7223E-13 1.237079E+02   3.6003E-01   5.6065E+02   1.5153E-08   1.8745E-04

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0767E-09 1.237083E+02   3.1884E+03   1.5905E+04   4.2986E-07   4.3279E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.9222E-13 1.237079E+02   2.8940E-01   5.9070E+02   1.5965E-08   1.9661E-04

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0861E-09 1.237083E+02   3.1950E+03   1.6048E+04   4.3373E-07   4.4388E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   9.8976E-13 1.237079E+02   3.9220E-01   6.7162E+02   1.8152E-08   2.2417E-04

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0690E-09 1.237082E+02   3.1829E+03   1.5927E+04   4.3046E-07   4.2826E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0077E-13 1.237079E+02   1.3240E-01   6.3659E+02   1.7205E-08   2.1010E-04

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0610E-09 1.237082E+02   3.1772E+03   1.5812E+04   4.2734E-07   4.1902E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.4388E-13 1.237079E+02   1.1986E-01   5.7631E+02   1.5576E-08   1.9020E-04
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Step : 33
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 32.03 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	6.1326E+07	1.0415E-13	3.5965E-07	7.2441E-02	1.7760E+01	4.8000E-10	6.7529E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	8.3149E+10	6.3017E-13	7.8467E-05	1.3888E-01	6.6777E+02	1.8048E-08	2.2039E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	5.9557E+08	2.2486E-11	1.2471E-04	1.5903E+01	1.0738E+02	2.9022E-09	1.9313E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60ml	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60ml
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0991E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4792E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6089E-13	9.2977E-12	5.8303E-03	1.3463E+00	3.6387E-11	8.8575E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.3619E+05	3.9961E-13	1.3430E-07	1.3568E-01	2.4881E+00	6.7246E-11	4.2315E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0598E-09 1.237081E+02 3.1764E+03 1.5741E+04 4.2542E-07 4.1590E-03
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 32.03 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.34314E+07
He	5.09468E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.40816E-02
C	2.10544E+07
N	2.65812E+17
O	8.56521E-06
Na	1.47231E+16
Mg	5.84034E+05
Al	3.22619E+17
Si	4.28895E+06
S	2.07726E-02
Cl	2.70006E+04
Ar	1.67780E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.14282E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.50561E+06
Ge	1.05498E+02
As	8.32629E+16
Se	4.60658E+08
Br	6.05099E+14
Kr	4.99230E+06
Rb	1.13142E+16
Sr	6.74195E+06
Y	8.62950E+00
Zr	3.83197E+03
Nb	8.24920E+03
Mo	1.09868E+17
Tc	1.82735E+07
Ru	4.46736E+06
Pd	2.72182E+05
Ag	1.79299E+15
Cd	1.19340E+08
In	5.01239E-06
Sn	4.61196E+06
Sb	1.86661E+16
Te	2.78335E+08
I	3.88682E-03
Xe	2.30702E+06
Cs	4.30232E+05
Ba	1.40818E+17
La	1.88562E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	7.49069E-02
Ta	1.03725E+05
W	3.94515E+15
Re	1.06830E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.1601E+00	2.1093E+01
2	(0.1 -> 0.2 MeV)	7.9920E-01	5.1561E+00
3	(0.2 -> 0.4 MeV)	6.6526E-01	2.2175E+00
4	(0.4 -> 0.6 MeV)	4.7757E+00	9.5515E+00
5	(0.6 -> 0.8 MeV)	3.7093E-01	5.2991E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	7.4120E+01	6.6775E+01
8	(1.22 ->1.44 MeV)	8.1943E+01	6.1611E+01
9	(1.44 ->1.66 MeV)	1.0500E-01	6.7740E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	6.1679E+01	6.6775E+01	1.3877E+04	5.2991E-01
9.5515E+00	1.1088E+00	1.1088E+00	5.1561E+00	1.0547E+01	1.0547E+01

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 346.63 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	6.5373E+10	4.9545E-13	6.1692E-05	1.0919E-01	5.2501E+02	1.4190E-08	1.7327E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3

Mo 95	1.7491E+16
Mo 96	1.8326E+16
Mo 97	1.0492E+16
Mo 98	2.6511E+16
Mo100	1.0580E+16
Ag107	9.2947E+14
Ag109	8.6352E+14
Sb121	1.0679E+16
Sb123	7.9872E+15
Ba130	1.4927E+14
Ba132	1.4223E+14
Ba134	3.4036E+15
Ba135	9.2828E+15
Ba136	1.1060E+16
Ba137	1.5817E+16
Ba138	1.0096E+17
W180	4.7342E+12
W182	1.0455E+15
W183	5.6455E+14
W184	1.2088E+15
W186	1.1216E+15

346.6 (d) 4.9548E-13 1.237079E+02 1.0920E-01 5.2502E+02 1.4190E-08 1.7327E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 346.63 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.7258E-01	1.5865E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.9325E+00	7.9325E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 346.63 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.34314E+07
He	5.09468E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.40816E-02
C	2.10520E+07
N	2.65812E+17
O	8.69698E-06
Na	1.47231E+16
Mg	5.84618E+05
Al	3.22619E+17
Si	4.28896E+06
S	2.16183E-02
Cl	2.71051E+04
Ar	1.66348E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.24859E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.50593E+06
Ge	1.05571E+02

As	8.32629E+16
Se	4.61468E+08
Br	6.05099E+14
Kr	4.99604E+06
Rb	1.13142E+16
Sr	6.83410E+06
Y	8.67369E+00
Zr	3.84722E+03
Nb	8.72465E+03
Mo	1.09868E+17
Tc	1.83534E+07
Ru	4.46756E+06
Pd	2.72304E+05
Ag	1.79299E+15
Cd	1.19465E+08
In	0.00000E+00
Sn	4.63178E+06
Sb	1.86661E+16
Te	2.80799E+08
I	3.95485E-03
Xe	2.34846E+06
Cs	4.37241E+05
Ba	1.40818E+17
La	1.88580E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	7.49071E-02
Ta	1.05781E+05
W	3.94515E+15
Re	1.07356E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.941E-04	1.960E+03	1.574E+04	4.254E-01	4.159E-03	6.060E-09	1.237081E+02
346.6 (d)	2.730E-08	6.538E+01	5.250E+02	1.419E-02	1.733E-04	4.955E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.574E+04	7.941E-04	4.159E-03	6.060E-09
346.6 (d)	5.250E+02	2.730E-08	1.733E-04	4.955E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.960E+06	7.546E-10	5.298E-05	3.176E+03
346.6 (d)	6.538E+04	6.170E-14	1.767E-06	1.092E-01

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.960E+03	7.941E-04	7.546E-10	3.318E+03
346.6 (d)	6.538E+01	2.730E-08	6.170E-14	2.179E-01

Elapsed Time.

Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)		
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)		
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)		
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals :	2

		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)		
Step	5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)		
Step	6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)		
Step	7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)		
Step	8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)		
Step	9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)		
Step	10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)		
Step	11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)		
Step	12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)		
Step	13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)		
Step	14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)		
Step	15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)		
Step	16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)		
Step	17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)		
Step	18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)		
Step	19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals :	2
		Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)		
Step	20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals :	2
		Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)		
Step	21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals :	2
		Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)		
Step	22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals :	2
		Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)		
Step	23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals :	2
		Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)		
Step	24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals :	2
		Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)		
Step	25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals :	2
		Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)		
Step	26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals :	2
		Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)		
Step	27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals :	2
		Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)		
Step	28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals :	2
		Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)		
Step	29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals :	2
		Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)		
Step	30 :	Activation of	4.29096E+06(s), i.e.	49.66 (d)	29.11 (y)	Intervals :	2
		Cold Pause of	2.72450E+07(s), i.e.	315.34 (d)	29.98 (y)		
Step	31 :	Activation of	2.37474E+06(s), i.e.	27.49 (d)	30.05 (y)	Intervals :	2
		Cold Pause of	2.91613E+07(s), i.e.	337.52 (d)	30.98 (y)		
Step	32 :	Activation of	1.67827E+06(s), i.e.	19.42 (d)	31.03 (y)	Intervals :	2
		Cold Pause of	2.98577E+07(s), i.e.	345.58 (d)	31.98 (y)		
Step	33 :	Activation of	1.58702E+06(s), i.e.	18.37 (d)	32.03 (y)	Intervals :	2
		Cold Pause of	2.99490E+07(s), i.e.	346.63 (d)	32.97 (y)		
Step	34 :	Activation of	1.45885E+06(s), i.e.	16.88 (d)	33.02 (y)	Intervals :	2

Cooling Times (s) :

3.0077E+07

348.1 (d)

AJBRF Reactor

Step : 1

Elapsed Time : 26.35 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0671E-09	1.237081E+02	3.1819E+03	1.5257E+04	4.1235E-07	4.0527E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 365.00 (d)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.0545E-13	1.237079E+02	2.3236E-02	1.1171E+02	3.0193E-09	3.6871E-05

Step : 2

Elapsed Time : 1.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0673E-09	1.237081E+02	3.1819E+03	1.5367E+04	4.1533E-07	4.0898E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 2.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	1.8728E-13	1.237079E+02	4.1272E-02	1.9843E+02	5.3630E-09	6.5491E-05

Step : 3

Elapsed Time : 2.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0674E-09	1.237082E+02	3.1820E+03	1.5452E+04	4.1763E-07	4.1179E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 3.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	2.5081E-13	1.237079E+02	5.5272E-02	2.6575E+02	7.1823E-09	8.7707E-05

Step : 4

Elapsed Time : 3.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0675E-09	1.237082E+02	3.1820E+03	1.5518E+04	4.1942E-07	4.1397E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 4.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.0012E-13	1.237079E+02	6.6140E-02	3.1800E+02	8.5946E-09	1.0495E-04

Step : 5

Elapsed Time : 4.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0675E-09	1.237082E+02	3.1820E+03	1.5570E+04	4.2080E-07	4.1567E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 5.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.3840E-13	1.237079E+02	7.4577E-02	3.5856E+02	9.6909E-09	1.1834E-04

Step : 6

Elapsed Time : 5.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5610E+04	4.2188E-07	4.1698E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.00 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.6812E-13	1.237079E+02	8.1125E-02	3.9005E+02	1.0542E-08	1.2873E-04

Step : 7

Elapsed Time : 6.07 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5640E+04	4.2272E-07	4.1800E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 6.99 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.9118E-13	1.237079E+02	8.6209E-02	4.1449E+02	1.1203E-08	1.3680E-04

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Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15
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Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
        Production of  H  :       0. appm/y.
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        Production of He  :      0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.9840E-13 1.237079E+02   2.1478E-01   4.5445E+02   1.2282E-08   1.5118E-04

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0852E-09 1.237083E+02   3.1944E+03   1.5906E+04   4.2989E-07   4.3863E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   8.7223E-13 1.237079E+02   3.6003E-01   5.6065E+02   1.5153E-08   1.8745E-04

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0767E-09 1.237083E+02   3.1884E+03   1.5905E+04   4.2986E-07   4.3279E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   7.9222E-13 1.237079E+02   2.8940E-01   5.9070E+02   1.5965E-08   1.9661E-04

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0861E-09 1.237083E+02   3.1950E+03   1.6048E+04   4.3373E-07   4.4388E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   9.8976E-13 1.237079E+02   3.9220E-01   6.7162E+02   1.8152E-08   2.2417E-04

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0690E-09 1.237082E+02   3.1829E+03   1.5927E+04   4.3046E-07   4.2826E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0077E-13 1.237079E+02   1.3240E-01   6.3659E+02   1.7205E-08   2.1010E-04

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0610E-09 1.237082E+02   3.1772E+03   1.5812E+04   4.2734E-07   4.1902E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.4388E-13 1.237079E+02   1.1986E-01   5.7631E+02   1.5576E-08   1.9020E-04

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0598E-09 1.237081E+02   3.1764E+03   1.5741E+04   4.2542E-07   4.1590E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9548E-13 1.237079E+02   1.0920E-01   5.2502E+02   1.4190E-08   1.7327E-04

Step :  34
    AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :     33.02 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)   Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
Al 27     3.2262E+17
 K 39     4.6135E+16
 K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
 K 41     3.3294E+15
Ca 40     5.8480E+16
Ca 42     3.9031E+14
Ca 43     8.1440E+13
Ca 44     1.2584E+15
Ca 46     2.4130E+12
Ca 48     1.1281E+14
Ti 46     5.8301E+16
Ti 47     5.2577E+16
Ti 48     5.2096E+17
Ti 49     3.8231E+16
Ti 50     3.6606E+16
 V 50     4.7693E+14   1.2289E-23   8.3329E+01   9.5324E-12   7.0337E-11   1.9010E-21   3.4479E-16   1.489E+11(My)    V 50
 V 51     1.9029E+17
Cr 50     5.2922E+18
Cr 51     5.7352E+07   9.7404E-14   3.3634E-07   6.7746E-02   1.6609E+01   4.4889E-10   6.3152E-07   2.770E+01 (d)    Cr 51
Cr 52     1.0206E+20
Cr 53     1.1571E+19
Cr 54     2.8806E+18
Cr 55     2.4728E+02   1.4229E-13   4.3606E-11   4.2634E-04   8.0689E-01   2.1808E-11   1.1301E-09   3.540E+00 (m)    Cr 55
Mn 55     8.2737E+20
Mn 56     1.9982E+08   6.0332E-09   8.0809E-05   3.1595E+03   1.4918E+04   4.0319E-07   3.7296E-03   2.579E+00 (h)    Mn 56
Fe 54     4.9638E+21
Fe 55     7.5923E+10   5.7540E-13   7.1647E-05   1.2681E-01   6.0973E+02   1.6479E-08   2.0123E-04   2.735E+00 (y)    Fe 55
Fe 56     7.7852E+22
Fe 57     1.7989E+21
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Fe 58	2.3759E+20								
Fe 59	5.5361E+08	2.0901E-11	1.1592E-04	1.4782E+01	9.9815E+01	2.6977E-09	1.7952E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0990E+05	1.4176E-12	1.9379E-07	3.1968E-01	5.9244E+00	1.6012E-10	9.4791E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7980E+01	2.6089E-13	9.2977E-12	5.8302E-03	1.3463E+00	3.6387E-11	8.8574E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.3271E+05	3.9794E-13	1.3374E-07	1.3511E-01	2.4777E+00	6.6966E-11	4.2138E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0581E-09 1.237081E+02 3.1753E+03 1.5674E+04 4.2362E-07 4.1262E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 33.02 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.38705E+07
He	5.19016E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.45329E-02
C	2.14472E+07
N	2.65812E+17
O	8.82875E-06
Na	1.47231E+16
Mg	5.94992E+05
Al	3.22619E+17
Si	4.36936E+06
S	2.16597E-02
Cl	2.75156E+04
Ar	1.70550E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.25430E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16

Ga	2.55258E+06
Ge	1.07477E+02
As	8.32629E+16
Se	4.69307E+08
Br	6.05099E+14
Kr	5.08594E+06
Rb	1.13142E+16
Sr	6.87537E+06
Y	8.79240E+00
Zr	3.90473E+03
Nb	8.76661E+03
Mo	1.09868E+17
Tc	1.86178E+07
Ru	4.55113E+06
Pd	2.77373E+05
Ag	1.79299E+15
Cd	1.21604E+08
In	5.01239E-06
Sn	4.69885E+06
Sb	1.86661E+16
Te	2.83724E+08
I	3.96560E-03
Xe	2.35368E+06
Cs	4.49031E+05
Ba	1.40818E+17
La	1.92098E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	7.63109E-02
Ta	1.05904E+05
W	3.94515E+15
Re	1.08872E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0623E+00	1.9315E+01
2	(0.1 -> 0.2 MeV)	7.4288E-01	4.7928E+00
3	(0.2 -> 0.4 MeV)	6.2157E-01	2.0719E+00
4	(0.4 -> 0.6 MeV)	4.7717E+00	9.5433E+00
5	(0.6 -> 0.8 MeV)	3.7066E-01	5.2951E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	6.9404E+01	6.2526E+01
8	(1.22 ->1.44 MeV)	7.7730E+01	5.8444E+01
9	(1.44 ->1.66 MeV)	9.8718E-02	6.3689E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	5.8507E+01	6.2526E+01	1.3877E+04	5.2951E-01
9.5433E+00	1.0359E+00	1.0359E+00	4.7928E+00	9.6577E+00	9.6577E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 348.12 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
N 14	2.6484E+17						
N 15	9.7287E+14						
Na 23	1.4723E+16						

Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.9630E+10	4.5192E-13	5.6273E-05	9.9601E-02	4.7889E+02	1.2943E-08	1.5805E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
348.1 (d)		4.5195E-13	1.237079E+02	9.9603E-02	4.7889E+02	1.2943E-08	1.5805E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 348.12 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.9592E-01	1.4471E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00

11 (2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12 (2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13 (3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14 (4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15 (5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.2357E+00	7.2357E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 348.12 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.38705E+07
He	5.19016E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.45329E-02
C	2.14447E+07
N	2.65812E+17
O	8.96053E-06
Na	1.47231E+16
Mg	5.95577E+05
Al	3.22619E+17
Si	4.36937E+06
S	2.25249E-02
Cl	2.76130E+04
Ar	1.69180E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.35058E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.55289E+06
Ge	1.07550E+02
As	8.32629E+16
Se	4.70117E+08
Br	6.05099E+14
Kr	5.08967E+06
Rb	1.13142E+16
Sr	6.96219E+06
Y	8.83625E+00
Zr	3.91932E+03
Nb	9.25403E+03
Mo	1.09868E+17
Tc	1.86973E+07
Ru	4.55134E+06
Pd	2.77498E+05
Ag	1.79299E+15
Cd	1.21715E+08
In	0.00000E+00
Sn	4.71859E+06
Sb	1.86661E+16
Te	2.86065E+08
I	4.02898E-03
Xe	2.39247E+06
Cs	4.57011E+05
Ba	1.40818E+17
La	1.92115E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	7.63110E-02
Ta	1.07799E+05
W	3.94515E+15
Re	1.09370E+07

Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.938E-04	1.952E+03	1.567E+04	4.236E-01	4.126E-03	6.058E-09	1.237081E+02
348.1 (d)	2.490E-08	5.964E+01	4.789E+02	1.294E-02	1.581E-04	4.520E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.567E+04	7.938E-04	4.126E-03	6.058E-09
348.1 (d)	4.789E+02	2.490E-08	1.581E-04	4.520E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.952E+06	7.544E-10	5.275E-05	3.175E+03
348.1 (d)	5.964E+04	5.628E-14	1.612E-06	9.960E-02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.952E+03	7.938E-04	7.544E-10	3.317E+03
348.1 (d)	5.964E+01	2.490E-08	5.628E-14	1.988E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2

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                Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    17.99 (y)

Step   19 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    18.06 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)    18.99 (y)

Step   20 : Activation of  3.31020E+06(s), i.e.     38.31 (d)    19.09 (y)      Intervals :  2
            Cold Pause of  2.82258E+07(s), i.e.    326.69 (d)    19.98 (y)

Step   21 : Activation of  2.82600E+06(s), i.e.     32.71 (d)    20.07 (y)      Intervals :  2
            Cold Pause of  2.87100E+07(s), i.e.    332.29 (d)    20.98 (y)

Step   22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)    21.05 (y)      Intervals :  2
            Cold Pause of  2.93940E+07(s), i.e.    340.21 (d)    21.98 (y)

Step   23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)    22.05 (y)      Intervals :  2
            Cold Pause of  2.94120E+07(s), i.e.    340.42 (d)    22.98 (y)

Step   24 : Activation of  1.38060E+06(s), i.e.     15.98 (d)    23.03 (y)      Intervals :  2
            Cold Pause of  3.01554E+07(s), i.e.    349.02 (d)    23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.      7.98 (d)    24.00 (y)      Intervals :  2
            Cold Pause of  3.08467E+07(s), i.e.    357.02 (d)    24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.     27.54 (d)    25.06 (y)      Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.    337.46 (d)    25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)    26.06 (y)      Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.    336.64 (d)    26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.     48.43 (d)    27.11 (y)      Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.    316.57 (d)    27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.     36.58 (d)    28.08 (y)      Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.    328.42 (d)    28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)    29.11 (y)      Intervals :  2
            Cold Pause of  2.72450E+07(s), i.e.    315.34 (d)    29.98 (y)

Step   31 : Activation of  2.37474E+06(s), i.e.     27.49 (d)    30.05 (y)      Intervals :  2
            Cold Pause of  2.91613E+07(s), i.e.    337.52 (d)    30.98 (y)

Step   32 : Activation of  1.67827E+06(s), i.e.     19.42 (d)    31.03 (y)      Intervals :  2
            Cold Pause of  2.98577E+07(s), i.e.    345.58 (d)    31.98 (y)

Step   33 : Activation of  1.58702E+06(s), i.e.     18.37 (d)    32.03 (y)      Intervals :  2
            Cold Pause of  2.99490E+07(s), i.e.    346.63 (d)    32.97 (y)

Step   34 : Activation of  1.45885E+06(s), i.e.     16.88 (d)    33.02 (y)      Intervals :  2
            Cold Pause of  3.00772E+07(s), i.e.    348.12 (d)    33.97 (y)

Step   35 : Activation of  2.27682E+06(s), i.e.     26.35 (d)    34.05 (y)      Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
       Production of  H  :       0. appm/y.
       Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
       Production of  H  :       0. appm/y.
       Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
       Production of  H  :       0. appm/y.
       Production of He  :       0. appm/y.
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Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04
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Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18
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Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
        Production of  H  :       0. appm/y.
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        Production of He  :      0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.9840E-13 1.237079E+02   2.1478E-01   4.5445E+02   1.2282E-08   1.5118E-04

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0852E-09 1.237083E+02   3.1944E+03   1.5906E+04   4.2989E-07   4.3863E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   8.7223E-13 1.237079E+02   3.6003E-01   5.6065E+02   1.5153E-08   1.8745E-04

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0767E-09 1.237083E+02   3.1884E+03   1.5905E+04   4.2986E-07   4.3279E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.9222E-13 1.237079E+02   2.8940E-01   5.9070E+02   1.5965E-08   1.9661E-04

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0861E-09 1.237083E+02   3.1950E+03   1.6048E+04   4.3373E-07   4.4388E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   9.8976E-13 1.237079E+02   3.9220E-01   6.7162E+02   1.8152E-08   2.2417E-04

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0690E-09 1.237082E+02   3.1829E+03   1.5927E+04   4.3046E-07   4.2826E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0077E-13 1.237079E+02   1.3240E-01   6.3659E+02   1.7205E-08   2.1010E-04

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0610E-09 1.237082E+02   3.1772E+03   1.5812E+04   4.2734E-07   4.1902E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:	8.5807E+22	5.4388E-13	1.237079E+02	1.1986E-01	5.7631E+02	1.5576E-08	1.9020E-04

Step : 33

Elapsed Time : 32.03 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0598E-09	1.237081E+02	3.1764E+03	1.5741E+04	4.2542E-07	4.1590E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 32.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.9548E-13	1.237079E+02	1.0920E-01	5.2502E+02	1.4190E-08	1.7327E-04

Step : 34

Elapsed Time : 33.02 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0581E-09	1.237081E+02	3.1753E+03	1.5674E+04	4.2362E-07	4.1262E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 33.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.5195E-13	1.237079E+02	9.9603E-02	4.7889E+02	1.2943E-08	1.5805E-04

Step : 35
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 34.05 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0355E+07	1.3647E-13	4.7124E-07	9.4919E-02	2.3271E+01	6.2894E-10	8.8482E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.6144E+10	5.7708E-13	7.1857E-05	1.2718E-01	6.1152E+02	1.6527E-08	2.0182E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0452E+08	3.0374E-11	1.6847E-04	2.1482E+01	1.4506E+02	3.9204E-09	2.6089E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								

Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2978E-12	5.8303E-03	1.3463E+00	3.6388E-11	8.8575E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5727E+04	4.2507E-07	4.2084E-03

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 34.05 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.45559E+07
He	5.33918E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.52373E-02
C	2.20616E+07
N	2.65812E+17
O	9.09230E-06
Na	1.47231E+16
Mg	6.12093E+05
Al	3.22619E+17
Si	4.49482E+06
S	2.25909E-02
Cl	2.82665E+04
Ar	1.75611E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.36200E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.62588E+06
Ge	1.10565E+02
As	8.32629E+16
Se	4.82805E+08
Br	6.05099E+14
Kr	5.23207E+06
Rb	1.13142E+16
Sr	7.04578E+06
Y	9.04502E+00
Zr	4.01405E+03
Nb	9.31532E+03
Mo	1.09868E+17
Tc	1.91536E+07
Ru	4.68185E+06
Pd	2.85409E+05
Ag	1.79299E+15
Cd	1.25055E+08
In	5.01239E-06
Sn	4.83410E+06
Sb	1.86661E+16
Te	2.91197E+08
I	4.05372E-03
Xe	2.40772E+06
Cs	4.76946E+05
Ba	1.40818E+17
La	1.97614E+06

Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	7.85020E-02
Ta	1.08063E+05
W	3.94515E+15
Re	1.11836E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0730E+00	1.9510E+01
2	(0.1 -> 0.2 MeV)	1.0796E+00	6.9651E+00
3	(0.2 -> 0.4 MeV)	8.7585E-01	2.9195E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7601E+01	8.7929E+01
8	(1.22 ->1.44 MeV)	1.0291E+02	7.7380E+01
9	(1.44 ->1.66 MeV)	1.3625E-01	8.7906E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7468E+01	8.7929E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4598E+00	1.4598E+00	6.9651E+00	9.7549E+00	9.7549E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	6.0199E+10	4.5623E-13	5.6809E-05	1.0055E-01	4.8346E+02	1.3066E-08	1.5956E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							

Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.5626E-13	1.237079E+02	1.0055E-01	4.8346E+02	1.3066E-08	1.5956E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.0351E-01	1.4609E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.3046E+00	7.3046E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.45559E+07
He	5.33918E+04

Li	0.00000E+00
Be	0.00000E+00
B	2.52373E-02
C	2.20591E+07
N	2.65812E+17
O	9.22407E-06
Na	1.47231E+16
Mg	6.12678E+05
Al	3.22619E+17
Si	4.49483E+06
S	2.34568E-02
Cl	2.84058E+04
Ar	1.73823E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.49281E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.62619E+06
Ge	1.10638E+02
As	8.32629E+16
Se	4.83615E+08
Br	6.05099E+14
Kr	5.23581E+06
Rb	1.13142E+16
Sr	7.16209E+06
Y	9.08996E+00
Zr	4.03186E+03
Nb	9.79956E+03
Mo	1.09868E+17
Tc	1.92341E+07
Ru	4.68205E+06
Pd	2.85534E+05
Ag	1.79299E+15
Cd	1.25192E+08
In	0.00000E+00
Sn	4.85407E+06
Sb	1.86661E+16
Te	2.94261E+08
I	4.14461E-03
Xe	2.46117E+06
Cs	4.76864E+05
Ba	1.40818E+17
La	1.97632E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	7.85021E-02
Ta	1.10750E+05
W	3.94515E+15
Re	1.12502E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.959E+03	1.573E+04	4.251E-01	4.208E-03	6.068E-09	1.237082E+02
338.6 (d)	2.514E-08	6.021E+01	4.835E+02	1.307E-02	1.596E-04	4.563E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.573E+04	7.955E-04	4.208E-03	6.068E-09
338.6 (d)	4.835E+02	2.514E-08	1.596E-04	4.563E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s

zero	1.959E+06	7.556E-10	5.293E-05	3.182E+03
338.6 (d)	6.021E+04	5.682E-14	1.627E-06	1.006E-01

AJBRF Reactor — AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.959E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	6.021E+01	2.514E-08	5.682E-14	2.007E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals : 2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)	
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals : 2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)	
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals : 2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)	
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals : 2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)	

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Step   27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)     26.06 (y)      Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.    336.64 (d)     26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.     48.43 (d)     27.11 (y)      Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.    316.57 (d)     27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.     36.58 (d)     28.08 (y)      Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.    328.42 (d)     28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)     29.11 (y)      Intervals :  2
            Cold Pause of  2.72450E+07(s), i.e.    315.34 (d)     29.98 (y)

Step   31 : Activation of  2.37474E+06(s), i.e.     27.49 (d)     30.05 (y)      Intervals :  2
            Cold Pause of  2.91613E+07(s), i.e.    337.52 (d)     30.98 (y)

Step   32 : Activation of  1.67827E+06(s), i.e.     19.42 (d)     31.03 (y)      Intervals :  2
            Cold Pause of  2.98577E+07(s), i.e.    345.58 (d)     31.98 (y)

Step   33 : Activation of  1.58702E+06(s), i.e.     18.37 (d)     32.03 (y)      Intervals :  2
            Cold Pause of  2.99490E+07(s), i.e.    346.63 (d)     32.97 (y)

Step   34 : Activation of  1.45885E+06(s), i.e.     16.88 (d)     33.02 (y)      Intervals :  2
            Cold Pause of  3.00772E+07(s), i.e.    348.12 (d)     33.97 (y)

Step   35 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     34.05 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     34.97 (y)

Step   36 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     35.05 (y)      Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05

Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05

Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
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            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Elapsed Time   :     11.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04
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Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04

Step :  27
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Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.9840E-13 1.237079E+02   2.1478E-01   4.5445E+02   1.2282E-08   1.5118E-04

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0852E-09 1.237083E+02   3.1944E+03   1.5906E+04   4.2989E-07   4.3863E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   8.7223E-13 1.237079E+02   3.6003E-01   5.6065E+02   1.5153E-08   1.8745E-04

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0767E-09 1.237083E+02   3.1884E+03   1.5905E+04   4.2986E-07   4.3279E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.9222E-13 1.237079E+02   2.8940E-01   5.9070E+02   1.5965E-08   1.9661E-04

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0861E-09 1.237083E+02   3.1950E+03   1.6048E+04   4.3373E-07   4.4388E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   9.8976E-13 1.237079E+02   3.9220E-01   6.7162E+02   1.8152E-08   2.2417E-04

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0690E-09 1.237082E+02   3.1829E+03   1.5927E+04   4.3046E-07   4.2826E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0077E-13 1.237079E+02   1.3240E-01   6.3659E+02   1.7205E-08   2.1010E-04

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0610E-09 1.237082E+02   3.1772E+03   1.5812E+04   4.2734E-07   4.1902E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.4388E-13 1.237079E+02   1.1986E-01   5.7631E+02   1.5576E-08   1.9020E-04

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0598E-09 1.237081E+02   3.1764E+03   1.5741E+04   4.2542E-07   4.1590E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9548E-13 1.237079E+02   1.0920E-01   5.2502E+02   1.4190E-08   1.7327E-04

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0581E-09 1.237081E+02   3.1753E+03   1.5674E+04   4.2362E-07   4.1262E-03
        Production of  H  :       0. appm/y.
```

Production of He : 0. appm/y.

Elapsed Time : 33.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.5195E-13	1.237079E+02	9.9603E-02	4.7889E+02	1.2943E-08	1.5805E-04

Step : 35

Elapsed Time : 34.05 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5727E+04	4.2507E-07	4.2084E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 34.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.5626E-13	1.237079E+02	1.0055E-01	4.8346E+02	1.3066E-08	1.5956E-04

Step : 36
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 35.05 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.6703E+10	5.8131E-13	7.2384E-05	1.2812E-01	6.1600E+02	1.6649E-08	2.0330E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0563E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								

Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3463E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0677E-09 1.237082E+02 3.1820E+03 1.5732E+04 4.2519E-07 4.2103E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 35.05 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.52413E+07
He	5.48821E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.59417E-02
C	2.26759E+07
N	2.65812E+17
O	9.35584E-06
Na	1.47231E+16
Mg	6.29194E+05
Al	3.22619E+17
Si	4.62028E+06
S	2.35247E-02
Cl	2.90593E+04
Ar	1.80252E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.50553E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.69918E+06
Ge	1.13653E+02
As	8.32629E+16
Se	4.96303E+08
Br	6.05099E+14
Kr	5.37820E+06
Rb	1.13142E+16
Sr	7.24568E+06
Y	9.29873E+00
Zr	4.12658E+03
Nb	9.86193E+03
Mo	1.09868E+17
Tc	1.96904E+07
Ru	4.81256E+06
Pd	2.93446E+05
Ag	1.79299E+15
Cd	1.28533E+08
In	5.01239E-06
Sn	4.96958E+06
Sb	1.86661E+16
Te	2.99398E+08
I	4.16937E-03
Xe	2.47641E+06
Cs	4.96806E+05
Ba	1.40818E+17
La	2.03131E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00

Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.06931E-02
Ta	1.11036E+05
W	3.94515E+15
Re	1.14969E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0805E+00	1.9645E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7726E+01	8.8041E+01
8	(1.22 ->1.44 MeV)	1.0303E+02	7.7463E+01
9	(1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7551E+01	8.8041E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	9.8226E+00	9.8226E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	6.0640E+10	4.5958E-13	5.7225E-05	1.0129E-01	4.8700E+02	1.3162E-08	1.6073E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							

Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.5961E-13	1.237079E+02	1.0129E-01	4.8700E+02	1.3162E-08	1.6073E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.0940E-01	1.4716E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.3582E+00	7.3582E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.52413E+07
He	5.48821E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.59417E-02
C	2.26734E+07
N	2.65812E+17
O	9.48761E-06
Na	1.47231E+16
Mg	6.29779E+05
Al	3.22619E+17

Si	4.62029E+06
S	2.44147E-02
Cl	2.91987E+04
Ar	1.78453E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.64466E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.69950E+06
Ge	1.13726E+02
As	8.32629E+16
Se	4.97113E+08
Br	6.05099E+14
Kr	5.38194E+06
Rb	1.13142E+16
Sr	7.36200E+06
Y	9.34366E+00
Zr	4.14439E+03
Nb	1.03602E+04
Mo	1.09868E+17
Tc	1.97709E+07
Ru	4.81276E+06
Pd	2.93574E+05
Ag	1.79299E+15
Cd	1.28681E+08
In	0.00000E+00
Sn	4.98956E+06
Sb	1.86661E+16
Te	3.02476E+08
I	4.26029E-03
Xe	2.52986E+06
Cs	4.96822E+05
Ba	1.40818E+17
La	2.03148E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.06932E-02
Ta	1.13835E+05
W	3.94515E+15
Re	1.15642E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.959E+03	1.573E+04	4.252E-01	4.210E-03	6.068E-09	1.237082E+02
338.6 (d)	2.532E-08	6.065E+01	4.870E+02	1.316E-02	1.607E-04	4.596E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.573E+04	7.955E-04	4.210E-03	6.068E-09
338.6 (d)	4.870E+02	2.532E-08	1.607E-04	4.596E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.959E+06	7.556E-10	5.295E-05	3.182E+03
338.6 (d)	6.065E+04	5.724E-14	1.639E-06	1.013E-01

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.959E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	6.065E+01	2.532E-08	5.724E-14	2.022E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals : 2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)	
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals : 2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)	
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals : 2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)	
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals : 2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)	
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals : 2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)	
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals : 2
	Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)	
Step 29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals : 2
	Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)	

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Step  30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)     29.11 (y)        Intervals :  2
           Cold Pause of  2.72450E+07(s), i.e.    315.34 (d)     29.98 (y).

Step  31 : Activation of  2.37474E+06(s), i.e.     27.49 (d)     30.05 (y)        Intervals :  2
           Cold Pause of  2.91613E+07(s), i.e.    337.52 (d)     30.98 (y)

Step  32 : Activation of  1.67827E+06(s), i.e.     19.42 (d)     31.03 (y)        Intervals :  2
           Cold Pause of  2.98577E+07(s), i.e.    345.58 (d)     31.98 (y)

Step  33 : Activation of  1.58702E+06(s), i.e.     18.37 (d)     32.03 (y)        Intervals :  2
           Cold Pause of  2.99490E+07(s), i.e.    346.63 (d)     32.97 (y)

Step  34 : Activation of  1.45885E+06(s), i.e.     16.88 (d)     33.02 (y)        Intervals :  2
           Cold Pause of  3.00772E+07(s), i.e.    348.12 (d)     33.97 (y)

Step  35 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     34.05 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     34.97 (y)

Step  36 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     35.05 (y)        Intervals :  2
           Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     35.97 (y)

Step  37 : Activation of  1.80003E+06(s), i.e.     20.83 (d)     36.03 (y)        Intervals :  2

Cooling Times (s)  :

  2.9736E+07

   344.2 (d)

AJBRF Reactor

Step :   1

Elapsed Time   :     26.35 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05

Step :   2

Elapsed Time   :      1.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05

Step :   3

Elapsed Time   :      2.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
          N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13
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Elapsed Time   :     12.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

 Step :  21

 Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

 Step :  22

 Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

 Step :  23

 Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

 Step :  24

 Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

 Step :  25

 Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

 Step :  26

 Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04

 Step :  27

 Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     26.98 (y)
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            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.9840E-13 1.237079E+02   2.1478E-01   4.5445E+02   1.2282E-08   1.5118E-04

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0852E-09 1.237083E+02   3.1944E+03   1.5906E+04   4.2989E-07   4.3863E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   8.7223E-13 1.237079E+02   3.6003E-01   5.6065E+02   1.5153E-08   1.8745E-04

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0767E-09 1.237083E+02   3.1884E+03   1.5905E+04   4.2986E-07   4.3279E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.9222E-13 1.237079E+02   2.8940E-01   5.9070E+02   1.5965E-08   1.9661E-04

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0861E-09 1.237083E+02   3.1950E+03   1.6048E+04   4.3373E-07   4.4388E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   9.8976E-13 1.237079E+02   3.9220E-01   6.7162E+02   1.8152E-08   2.2417E-04

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0690E-09 1.237082E+02   3.1829E+03   1.5927E+04   4.3046E-07   4.2826E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0077E-13 1.237079E+02   1.3240E-01   6.3659E+02   1.7205E-08   2.1010E-04

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0610E-09 1.237082E+02   3.1772E+03   1.5812E+04   4.2734E-07   4.1902E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.4388E-13 1.237079E+02   1.1986E-01   5.7631E+02   1.5576E-08   1.9020E-04

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0598E-09 1.237081E+02   3.1764E+03   1.5741E+04   4.2542E-07   4.1590E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9548E-13 1.237079E+02   1.0920E-01   5.2502E+02   1.4190E-08   1.7327E-04

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0581E-09 1.237081E+02   3.1753E+03   1.5674E+04   4.2362E-07   4.1262E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5195E-13 1.237079E+02   9.9603E-02   4.7889E+02   1.2943E-08   1.5805E-04
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Step : 35

Elapsed Time : 34.05 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5727E+04	4.2507E-07	4.2084E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 34.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.5626E-13	1.237079E+02	1.0055E-01	4.8346E+02	1.3066E-08	1.5956E-04

Step : 36

Elapsed Time : 35.05 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0677E-09	1.237082E+02	3.1820E+03	1.5732E+04	4.2519E-07	4.2103E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 35.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.5961E-13	1.237079E+02	1.0129E-01	4.8700E+02	1.3162E-08	1.6073E-04

Step : 37
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 36.03 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03 (My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11 (My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	6.7616E+07	1.1484E-13	3.9654E-07	7.9871E-02	1.9582E+01	5.2924E-10	7.4455E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.3706E+10	5.5860E-13	6.9556E-05	1.2311E-01	5.9194E+02	1.5998E-08	1.9536E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	6.6389E+08	2.5065E-11	1.3902E-04	1.7727E+01	1.1970E+02	3.2351E-09	2.1529E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-24	3.7368E-21	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04 (My)	Rb 87
Mo 92	1.6304E+16								

Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2978E-12	5.8303E-03	1.3463E+00	3.6388E-11	8.8575E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.3971E+05	4.0129E-13	1.3486E-07	1.3625E-01	2.4986E+00	6.7529E-11	4.2493E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0623E-09 1.237082E+02 3.1782E+03 1.5679E+04 4.2375E-07 4.1562E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 36.03 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.57832E+07
He	5.60602E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.64987E-02
C	2.31611E+07
N	2.65812E+17
O	9.61939E-06
Na	1.47231E+16
Mg	6.42713E+05
Al	3.22619E+17
Si	4.71950E+06
S	2.54464E-02
Cl	2.97095E+04
Ar	1.83592E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.65368E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.75713E+06
Ge	1.16094E+02
As	8.32629E+16
Se	5.06975E+08
Br	6.05099E+14
Kr	5.49374E+06
Rb	1.13142E+16
Sr	7.41965E+06
Y	9.49970E+00
Zr	4.21717E+03
Nb	1.04124E+04
Mo	1.09868E+17
Tc	2.01151E+07
Ru	4.91591E+06
Pd	2.99829E+05
Ag	1.79299E+15
Cd	1.31323E+08
In	5.01239E-06
Sn	5.07676E+06
Sb	1.86661E+16
Te	3.06313E+08
I	4.27629E-03
Xe	2.53863E+06
Cs	5.12164E+05
Ba	1.40818E+17
La	2.07492E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00

Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.24253E-02
Ta	1.14028E+05
W	3.94515E+15
Re	1.17554E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0362E+00	1.8840E+01
2	(0.1 -> 0.2 MeV)	8.9087E-01	5.7475E+00
3	(0.2 -> 0.4 MeV)	7.3474E-01	2.4491E+00
4	(0.4 -> 0.6 MeV)	4.7798E+00	9.5597E+00
5	(0.6 -> 0.8 MeV)	3.7121E-01	5.3030E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	8.1797E+01	7.3691E+01
8	(1.22 ->1.44 MeV)	8.8799E+01	6.6766E+01
9	(1.44 ->1.66 MeV)	1.1522E-01	7.4333E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	6.6841E+01	7.3691E+01	1.3877E+04	5.3030E-01
9.5597E+00	1.2246E+00	1.2246E+00	5.7475E+00	9.4201E+00	9.4201E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 344.17 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.8049E+10	4.3994E-13	5.4780E-05	9.6959E-02	4.6619E+02	1.2600E-08	1.5386E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							

Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
344.2 (d)		4.3997E-13	1.237079E+02	9.6961E-02	4.6619E+02	1.2600E-08	1.5386E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 344.17 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.7481E-01	1.4087E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.0437E+00	7.0437E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 344.17 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.57832E+07
He	5.60602E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.64987E-02

C	2.31584E+07
N	2.65812E+17
O	9.75116E-06
Na	1.47231E+16
Mg	6.43298E+05
Al	3.22619E+17
Si	4.71951E+06
S	2.63703E-02
Cl	2.98254E+04
Ar	1.82013E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.77380E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.75745E+06
Ge	1.16167E+02
As	8.32629E+16
Se	5.07785E+08
Br	6.05099E+14
Kr	5.49747E+06
Rb	1.13142E+16
Sr	7.52004E+06
Y	9.54427E+00
Zr	4.23336E+03
Nb	1.09320E+04
Mo	1.09868E+17
Tc	2.01953E+07
Ru	4.91612E+06
Pd	2.99962E+05
Ag	1.79299E+15
Cd	1.31457E+08
In	0.00000E+00
Sn	5.09667E+06
Sb	1.86661E+16
Te	3.08981E+08
I	4.35179E-03
Xe	2.58417E+06
Cs	5.16611E+05
Ba	1.40818E+17
La	2.07510E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.24255E-02
Ta	1.16378E+05
W	3.94515E+15
Re	1.18131E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.946E-04	1.953E+03	1.568E+04	4.238E-01	4.156E-03	6.062E-09	1.237082E+02
344.2 (d)	2.424E-08	5.806E+01	4.662E+02	1.260E-02	1.539E-04	4.400E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.568E+04	7.946E-04	4.156E-03	6.062E-09
344.2 (d)	4.662E+02	2.424E-08	1.539E-04	4.400E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.953E+06	7.550E-10	5.277E-05	3.178E+03
344.2 (d)	5.806E+04	5.479E-14	1.569E-06	9.696E-02

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

AJBRF Soil (Side) Flux

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.953E+03	7.946E-04	7.550E-10	3.318E+03
344.2 (d)	5.806E+01	2.424E-08	5.479E-14	1.935E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals : 2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)	
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals : 2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)	
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals : 2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)	
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals : 2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)	
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals : 2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)	

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Step   28 : Activation of  4.18396E+06(s), i.e.     48.43 (d)     27.11 (y)        Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.    316.57 (d)     27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.     36.58 (d)     28.08 (y)        Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.    328.42 (d)     28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)     29.11 (y)        Intervals :  2
            Cold Pause of  2.72450E+07(s), i.e.    315.34 (d)     29.98 (y)

Step   31 : Activation of  2.37474E+06(s), i.e.     27.49 (d)     30.05 (y)        Intervals :  2
            Cold Pause of  2.91613E+07(s), i.e.    337.52 (d)     30.98 (y)

Step   32 : Activation of  1.67827E+06(s), i.e.     19.42 (d)     31.03 (y)        Intervals :  2
            Cold Pause of  2.98577E+07(s), i.e.    345.58 (d)     31.98 (y)

Step   33 : Activation of  1.58702E+06(s), i.e.     18.37 (d)     32.03 (y)        Intervals :  2
            Cold Pause of  2.99490E+07(s), i.e.    346.63 (d)     32.97 (y)

Step   34 : Activation of  1.45885E+06(s), i.e.     16.88 (d)     33.02 (y)        Intervals :  2
            Cold Pause of  3.00772E+07(s), i.e.    348.12 (d)     33.97 (y)

Step   35 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     34.05 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     34.97 (y)

Step   36 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     35.05 (y)        Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     35.97 (y)

Step   37 : Activation of  1.80003E+06(s), i.e.     20.83 (d)     36.03 (y)        Intervals :  2
            Cold Pause of  2.97360E+07(s), i.e.    344.17 (d)     36.97 (y)

Step   38 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     37.04 (y)        Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04


Step :   5
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Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
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        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :     11.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time    :     12.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :     12.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time    :     13.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :     13.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time    :     14.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :     14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time    :     15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :     15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time    :     16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time    :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time    :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :      0. appm/y.
        Production of He  :      0. appm/y.

Elapsed Time    :     18.99 (y)
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            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04
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Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.9840E-13 1.237079E+02   2.1478E-01   4.5445E+02   1.2282E-08   1.5118E-04

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0852E-09 1.237083E+02   3.1944E+03   1.5906E+04   4.2989E-07   4.3863E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   8.7223E-13 1.237079E+02   3.6003E-01   5.6065E+02   1.5153E-08   1.8745E-04

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0767E-09 1.237083E+02   3.1884E+03   1.5905E+04   4.2986E-07   4.3279E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.9222E-13 1.237079E+02   2.8940E-01   5.9070E+02   1.5965E-08   1.9661E-04

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0861E-09 1.237083E+02   3.1950E+03   1.6048E+04   4.3373E-07   4.4388E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals;   8.5807E+22   9.8976E-13 1.237079E+02   3.9220E-01   6.7162E+02   1.8152E-08   2.2417E-04

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0690E-09 1.237082E+02   3.1829E+03   1.5927E+04   4.3046E-07   4.2826E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0077E-13 1.237079E+02   1.3240E-01   6.3659E+02   1.7205E-08   2.1010E-04

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0610E-09 1.237082E+02   3.1772E+03   1.5812E+04   4.2734E-07   4.1902E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.4388E-13 1.237079E+02   1.1986E-01   5.7631E+02   1.5576E-08   1.9020E-04

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0598E-09 1.237081E+02   3.1764E+03   1.5741E+04   4.2542E-07   4.1590E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9548E-13 1.237079E+02   1.0920E-01   5.2502E+02   1.4190E-08   1.7327E-04

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   6.0581E-09 1.237081E+02   3.1753E+03   1.5674E+04   4.2362E-07   4.1262E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5195E-13 1.237079E+02   9.9603E-02   4.7889E+02   1.2943E-08   1.5805E-04


Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5727E+04   4.2507E-07   4.2084E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5626E-13 1.237079E+02   1.0055E-01   4.8346E+02   1.3066E-08   1.5956E-04


Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5732E+04   4.2519E-07   4.2103E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5961E-13 1.237079E+02   1.0129E-01   4.8700E+02   1.3162E-08   1.6073E-04


Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0623E-09 1.237082E+02   3.1782E+03   1.5679E+04   4.2375E-07   4.1562E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3997E-13 1.237079E+02   9.6961E-02   4.6619E+02   1.2600E-08   1.5386E-04


Step :  38
    AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time   :     37.04 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
 N 15     9.7287E+14
Na 23     1.4723E+16
Al 27     3.2262E+17
 K 39     4.6135E+16
 K 40     5.7880E+12   1.0803E-17   6.2955E-01   1.9444E-06   9.9322E-05   2.6844E-15   6.1691E-10   1.280E+03(My)    K 40
 K 41     3.3294E+15
Ca 40     5.8480E+16
Ca 42     3.9031E+14
Ca 43     8.1440E+13
Ca 44     1.2584E+15
Ca 46     2.4130E+12
Ca 48     1.1281E+14
Ti 46     5.8301E+16
Ti 47     5.2577E+16
Ti 48     5.2096E+17
Ti 49     3.8231E+16
Ti 50     3.6606E+16
 V 50     4.7693E+14   1.2289E-23   8.3329E+01   9.5324E-12   7.0337E-11   1.9010E-21   3.4479E-16   1.489E+11(My)    V 50
 V 51     1.9029E+17
Cr 50     5.2922E+18
Cr 51     8.0356E+07   1.3647E-13   4.7125E-07   9.4921E-02   2.3271E+01   6.2895E-10   8.8484E-07   2.770E+01 (d)   Cr 51
Cr 52     1.0206E+20
Cr 53     1.1571E+19
Cr 54     2.8806E+18
Cr 55     2.4728E+02   1.4229E-13   4.3606E-11   4.2634E-04   8.0689E-01   2.1808E-11   1.1301E-09   3.540E+00 (m)   Cr 55
Mn 55     8.2737E+20
Mn 56     1.9982E+08   6.0332E-09   8.0809E-05   3.1595E+03   1.4918E+04   4.0319E-07   3.7296E-03   2.579E+00 (h)   Mn 56
Fe 54     4.9638E+21
Fe 55     7.4591E+10   5.6531E-13   7.0391E-05   1.2459E-01   5.9904E+02   1.6190E-08   1.9770E-04   2.735E+00 (y)   Fe 55
Fe 56     7.7852E+22
Fe 57     1.7989E+21
Fe 58     2.3759E+20
Fe 59     8.0497E+08   3.0391E-11   1.6856E-04   2.1494E+01   1.4514E+02   3.9226E-09   2.6104E-04   4.450E+01 (d)   Fe 59
Co 59     8.4506E+16
Co 60m1   3.6604E+03   4.1217E-14   3.7368E-11   3.4834E-03   4.0374E+00   1.0912E-10   6.8663E-09   1.047E+01 (m)   Co 60m1
Ni 58     5.9997E+17
Ni 60     2.3111E+17
Ni 61     1.0047E+16
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Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04 (My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2978E-12	5.8303E-03	1.3463E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5715E+04	4.2473E-07	4.2045E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 37.04 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.64686E+07
He	5.75505E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.72031E-02
C	2.37752E+07
N	2.65812E+17
O	9.88293E-06
Na	1.47231E+16
Mg	6.59814E+05
Al	3.22619E+17
Si	4.84496E+06
S	2.64416E-02
Cl	3.04789E+04
Ar	1.88441E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.78605E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.83043E+06
Ge	1.19182E+02
As	8.32629E+16
Se	5.20473E+08
Br	6.05099E+14
Kr	5.63987E+06
Rb	1.13142E+16

Sr	7.60363E+06
Y	9.75304E+00
Zr	4.32809E+03
Nb	1.09963E+04
Mo	1.09868E+17
Tc	2.06516E+07
Ru	5.04663E+06
Pd	3.07874E+05
Ag	1.79299E+15
Cd	1.34798E+08
In	5.01239E-06
Sn	5.21218E+06
Sb	1.86661E+16
Te	3.14115E+08
I	4.37654E-03
Xe	2.59941E+06
Cs	5.36548E+05
Ba	1.40818E+17
La	2.13009E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.46164E-02
Ta	1.16654E+05
W	3.94515E+15
Re	1.20597E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0523E+00	1.9133E+01
2	(0.1 -> 0.2 MeV)	1.0802E+00	6.9689E+00
3	(0.2 -> 0.4 MeV)	8.7594E-01	2.9198E+00
4	(0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5	(0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6	(0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7	(1.0 ->1.22 MeV)	9.7651E+01	8.7974E+01
8	(1.22 ->1.44 MeV)	1.0296E+02	7.7413E+01
9	(1.44 ->1.66 MeV)	1.3632E-01	8.7949E-02
10	(1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11	(2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12	(2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13	(3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7501E+01	8.7974E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4599E+00	1.4599E+00	6.9689E+00	9.5664E+00	9.5664E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							

Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.8971E+10	4.4693E-13	5.5650E-05	9.8500E-02	4.7360E+02	1.2800E-08	1.5630E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
338.6 (d)		4.4696E-13	1.237079E+02	9.8502E-02	4.7360E+02	1.2800E-08	1.5630E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.8712E-01	1.4311E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)

SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.1556E+00	7.1556E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.64686E+07
He	5.75505E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.72031E-02
C	2.37726E+07
N	2.65812E+17
O	1.00147E-05
Na	1.47231E+16
Mg	6.60399E+05
Al	3.22619E+17
Si	4.84497E+06
S	2.73749E-02
Cl	3.06182E+04
Ar	1.86624E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.92216E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.83075E+06
Ge	1.19255E+02
As	8.32629E+16
Se	5.21283E+08
Br	6.05099E+14
Kr	5.64361E+06
Rb	1.13142E+16
Sr	7.71994E+06
Y	9.79797E+00
Zr	4.34590E+03
Nb	1.15196E+04
Mo	1.09868E+17
Tc	2.07321E+07
Ru	5.04684E+06
Pd	3.08009E+05
Ag	1.79299E+15
Cd	1.34944E+08
In	0.00000E+00
Sn	5.23215E+06
Sb	1.86661E+16
Te	3.17185E+08
I	4.46744E-03
Xe	2.65286E+06
Cs	5.36492E+05
Ba	1.40818E+17
La	2.13026E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.46166E-02
Ta	1.19401E+05
W	3.94515E+15
Re	1.21266E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.957E+03	1.572E+04	4.247E-01	4.204E-03	6.068E-09	1.237082E+02
338.6 (d)	2.463E-08	5.898E+01	4.736E+02	1.280E-02	1.563E-04	4.470E-13	1.237079E+02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.572E+04	7.955E-04	4.204E-03	6.068E-09
338.6 (d)	4.736E+02	2.463E-08	1.563E-04	4.470E-13

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.957E+06	7.556E-10	5.289E-05	3.182E+03
338.6 (d)	5.898E+04	5.566E-14	1.594E-06	9.850E-02

AJBRF Reactor AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.957E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	5.898E+01	2.463E-08	5.566E-14	1.966E-01

			Elapsed Time.		
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	

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Step   21 : Activation of  2.82600E+06(s), i.e.    32.71 (d)    20.07 (y)    Intervals :  2
            Cold Pause of  2.87100E+07(s), i.e.   332.29 (d)    20.98 (y)

Step   22 : Activation of  2.14200E+06(s), i.e.    24.79 (d)    21.05 (y)    Intervals :  2
            Cold Pause of  2.93940E+07(s), i.e.   340.21 (d)    21.98 (y)

Step   23 : Activation of  2.12400E+06(s), i.e.    24.58 (d)    22.05 (y)    Intervals :  2
            Cold Pause of  2.94120E+07(s), i.e.   340.42 (d)    22.98 (y)

Step   24 : Activation of  1.38060E+06(s), i.e.    15.98 (d)    23.03 (y)    Intervals :  2
            Cold Pause of  3.01554E+07(s), i.e.   349.02 (d)    23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.     7.98 (d)    24.00 (y)    Intervals :  2
            Cold Pause of  3.08467E+07(s), i.e.   357.02 (d)    24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.    27.54 (d)    25.06 (y)    Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.   337.46 (d)    25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.    28.36 (d)    26.06 (y)    Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.   336.64 (d)    26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.    48.43 (d)    27.11 (y)    Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.   316.57 (d)    27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.    36.58 (d)    28.08 (y)    Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.   328.42 (d)    28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.    49.66 (d)    29.11 (y)    Intervals :  2
            Cold Pause of  2.72450E+07(s), i.e.   315.34 (d)    29.98 (y)

Step   31 : Activation of  2.37474E+06(s), i.e.    27.49 (d)    30.05 (y)    Intervals :  2
            Cold Pause of  2.91613E+07(s), i.e.   337.52 (d)    30.98 (y)

Step   32 : Activation of  1.67827E+06(s), i.e.    19.42 (d)    31.03 (y)    Intervals :  2
            Cold Pause of  2.98577E+07(s), i.e.   345.58 (d)    31.98 (y)

Step   33 : Activation of  1.58702E+06(s), i.e.    18.37 (d)    32.03 (y)    Intervals :  2
            Cold Pause of  2.99490E+07(s), i.e.   346.63 (d)    32.97 (y)

Step   34 : Activation of  1.45885E+06(s), i.e.    16.88 (d)    33.02 (y)    Intervals :  2
            Cold Pause of  3.00772E+07(s), i.e.   348.12 (d)    33.97 (y)

Step   35 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    34.05 (y)    Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    34.97 (y)

Step   36 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    35.05 (y)    Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    35.97 (y)

Step   37 : Activation of  1.80003E+06(s), i.e.    20.83 (d)    36.03 (y)    Intervals :  2
            Cold Pause of  2.97360E+07(s), i.e.   344.17 (d)    36.97 (y)

Step   38 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    37.04 (y)    Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    37.97 (y)

Step   39 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    38.04 (y)    Intervals :  2

Cooling Times (s)  :

  2.9259E+07

   338.6 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3
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Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
        Production of  H  :       0. appm/y.
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        Production of He  :       0. appm/y.

 Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

 Step :  11

 Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

 Step :  12

 Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

 Step :  13

 Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

 Step :  14

 Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

 Step :  15

 Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

 Step :  16

 Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

 Step :  17

 Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

Step :  25
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Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.9840E-13 1.237079E+02   2.1478E-01   4.5445E+02   1.2282E-08   1.5118E-04

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0852E-09 1.237083E+02   3.1944E+03   1.5906E+04   4.2989E-07   4.3863E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   8.7223E-13 1.237079E+02   3.6003E-01   5.6065E+02   1.5153E-08   1.8745E-04

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0767E-09 1.237083E+02   3.1884E+03   1.5905E+04   4.2986E-07   4.3279E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.9222E-13 1.237079E+02   2.8940E-01   5.9070E+02   1.5965E-08   1.9661E-04

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0861E-09 1.237083E+02   3.1950E+03   1.6048E+04   4.3373E-07   4.4388E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   9.8976E-13 1.237079E+02   3.9220E-01   6.7162E+02   1.8152E-08   2.2417E-04

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0690E-09 1.237082E+02   3.1829E+03   1.5927E+04   4.3046E-07   4.2826E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0077E-13 1.237079E+02   1.3240E-01   6.3659E+02   1.7205E-08   2.1010E-04

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0610E-09 1.237082E+02   3.1772E+03   1.5812E+04   4.2734E-07   4.1902E-03
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     31.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:  8.5807E+22   5.4388E-13 1.237079E+02   1.1986E-01   5.7631E+02   1.5576E-08   1.9020E-04

 Step :  33

 Elapsed Time   :     32.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:  8.5807E+22   6.0598E-09 1.237081E+02   3.1764E+03   1.5741E+04   4.2542E-07   4.1590E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     32.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:  8.5807E+22   4.9548E-13 1.237079E+02   1.0920E-01   5.2502E+02   1.4190E-08   1.7327E-04

 Step :  34

 Elapsed Time   :     33.02 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:  8.5807E+22   6.0581E-09 1.237081E+02   3.1753E+03   1.5674E+04   4.2362E-07   4.1262E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     33.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:  8.5807E+22   4.5195E-13 1.237079E+02   9.9603E-02   4.7889E+02   1.2943E-08   1.5805E-04

 Step :  35

 Elapsed Time   :     34.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:  8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5727E+04   4.2507E-07   4.2084E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     34.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:  8.5807E+22   4.5626E-13 1.237079E+02   1.0055E-01   4.8346E+02   1.3066E-08   1.5956E-04

 Step :  36

 Elapsed Time   :     35.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:  8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5732E+04   4.2519E-07   4.2103E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     35.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:  8.5807E+22   4.5961E-13 1.237079E+02   1.0129E-01   4.8700E+02   1.3162E-08   1.6073E-04

 Step :  37

 Elapsed Time   :     36.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:  8.5807E+22   6.0623E-09 1.237082E+02   3.1782E+03   1.5679E+04   4.2375E-07   4.1562E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     36.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:  8.5807E+22   4.3997E-13 1.237079E+02   9.6961E-02   4.6619E+02   1.2600E-08   1.5386E-04

 Step :  38

 Elapsed Time   :     37.04 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:  8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5715E+04   4.2473E-07   4.2045E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     37.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:  8.5807E+22   4.4696E-13 1.237079E+02   9.8502E-02   4.7360E+02   1.2800E-08   1.5630E-04

 Step :  39
     AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

 Elapsed Time   :     38.04 (y)          Cooling Time 0.

Nuclide     N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

 N 14     2.6484E+17
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N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	8.0359E+07	1.3648E-13	4.7126E-07	9.4923E-02	2.3272E+01	6.2897E-10	8.8486E-07	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9982E+08	6.0332E-09	8.0809E-05	3.1595E+03	1.4918E+04	4.0319E-07	3.7296E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	7.5497E+10	5.7218E-13	7.1246E-05	1.2610E-01	6.0632E+02	1.6387E-08	2.0010E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	8.0563E+08	3.0416E-11	1.6870E-04	2.1512E+01	1.4526E+02	3.9258E-09	2.6125E-04	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	8.2059E+05	6.3030E-13	4.1582E-08	2.9518E-01	1.2438E+01	3.3618E-10	1.4932E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	8.0992E+05	1.4176E-12	1.9380E-07	3.1969E-01	5.9245E+00	1.6012E-10	9.4793E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7981E+01	2.6090E-13	9.2979E-12	5.8303E-03	1.3464E+00	3.6388E-11	8.8576E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb122	8.4273E+05	4.0274E-13	1.3535E-07	1.3674E-01	2.5076E+00	6.7772E-11	4.2646E-06	2.696E+00 (d)	Sb122
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 81 Nuclides.

Totals: 8.5807E+22 6.0677E-09 1.237082E+02 3.1820E+03 1.5722E+04 4.2493E-07 4.2071E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 38.04 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.71540E+07
He	5.90407E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.79075E-02
C	2.43894E+07
N	2.65812E+17
O	1.01465E-05
Na	1.47231E+16
Mg	6.76916E+05
Al	3.22619E+17
Si	4.97042E+06
S	2.74480E-02
Cl	3.12717E+04
Ar	1.93051E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	5.93506E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.90373E+06
Ge	1.22270E+02
As	8.32629E+16
Se	5.33972E+08
Br	6.05099E+14
Kr	5.78601E+06
Rb	1.13142E+16
Sr	7.80353E+06
Y	1.00067E+01
Zr	4.44062E+03
Nb	1.15850E+04
Mo	1.09868E+17
Tc	2.11884E+07
Ru	5.17735E+06
Pd	3.15921E+05
Ag	1.79299E+15
Cd	1.38286E+08
In	5.01239E-06
Sn	5.34766E+06
Sb	1.86661E+16
Te	3.22321E+08
I	4.49220E-03
Xe	2.66811E+06
Cs	5.56436E+05
Ba	1.40818E+17
La	2.18525E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.68075E-02
Ta	1.19689E+05
W	3.94515E+15
Re	1.23734E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0644E+00	1.9353E+01
2	(0.1 -> 0.2 MeV)	1.0811E+00	6.9747E+00
3	(0.2 -> 0.4 MeV)	8.7608E-01	2.9203E+00

4 (0.4 -> 0.6 MeV)	4.7834E+00	9.5667E+00
5 (0.6 -> 0.8 MeV)	3.7145E-01	5.3064E-01
6 (0.8 -> 1.0 MeV)	1.2489E+04	1.3877E+04
7 (1.0 ->1.22 MeV)	9.7726E+01	8.8041E+01
8 (1.22 ->1.44 MeV)	1.0303E+02	7.7463E+01
9 (1.44 ->1.66 MeV)	1.3642E-01	8.8013E-02
10 (1.66 -> 2.0 MeV)	7.4250E+03	4.0574E+03
11 (2.0 -> 2.5 MeV)	4.5194E+03	2.0086E+03
12 (2.5 -> 3.0 MeV)	7.9297E+02	2.8835E+02
13 (3.0 -> 4.0 MeV)	7.9524E+01	2.2721E+01
14 (4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15 (5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2721E+01	2.8835E+02
2.0086E+03	4.0574E+03	7.7551E+01	8.8041E+01	1.3877E+04	5.3064E-01
9.5667E+00	1.4601E+00	1.4601E+00	6.9747E+00	9.6763E+00	9.6763E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	5.9687E+10	4.5235E-13	5.6326E-05	9.9696E-02	4.7935E+02	1.2955E-08	1.5820E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						

Ba134	3.4036E+15
Ba135	9.2828E+15
Ba136	1.1060E+16
Ba137	1.5817E+16
Ba138	1.0096E+17
W180	4.7342E+12
W182	1.0455E+15
W183	5.6455E+14
W184	1.2088E+15
W186	1.1216E+15

338.6 (d) 4.5238E-13 1.237079E+02 9.9698E-02 4.7935E+02 1.2955E-08 1.5820E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	7.9668E-01	1.4485E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	7.2425E+00	7.2425E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 338.65 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.71540E+07
He	5.90407E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.79075E-02
C	2.43867E+07
N	2.65812E+17
O	1.02782E-05
Na	1.47231E+16
Mg	6.77500E+05
Al	3.22619E+17
Si	4.97043E+06
S	2.84055E-02
Cl	3.14111E+04
Ar	1.91223E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	6.07531E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.90405E+06
Ge	1.22343E+02
As	8.32629E+16
Se	5.34782E+08
Br	6.05099E+14
Kr	5.78974E+06
Rb	1.13142E+16
Sr	7.91985E+06
Y	1.00517E+01
Zr	4.45843E+03
Nb	1.21221E+04
Mo	1.09868E+17
Tc	2.12690E+07

Ru	5.17756E+06
Pd	3.16058E+05
Ag	1.79299E+15
Cd	1.38437E+08
In	0.00000E+00
Sn	5.36764E+06
Sb	1.86661E+16
Te	3.25399E+08
I	4.58312E-03
Xe	2.72156E+06
Cs	5.56476E+05
Ba	1.40818E+17
La	2.18542E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.68077E-02
Ta	1.22495E+05
W	3.94515E+15
Re	1.24407E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.955E-04	1.958E+03	1.572E+04	4.249E-01	4.207E-03	6.068E-09	1.237082E+02
338.6 (d)	2.492E-08	5.969E+01	4.793E+02	1.296E-02	1.582E-04	4.524E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.572E+04	7.955E-04	4.207E-03	6.068E-09
338.6 (d)	4.793E+02	2.492E-08	1.582E-04	4.524E-13

AJBRF Reactor — AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.958E+06	7.556E-10	5.292E-05	3.182E+03
338.6 (d)	5.969E+04	5.634E-14	1.613E-06	9.970E-02

AJBRF Reactor — AJBRF Soil (Side) Flux

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.958E+03	7.955E-04	7.556E-10	3.319E+03
338.6 (d)	5.969E+01	2.492E-08	5.634E-14	1.990E-01

			Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e. 26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e. 338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e. 26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e. 338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e. 26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e. 338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e. 26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e. 338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e. 26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e. 338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e. 26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e. 338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e. 26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e. 338.65 (d)	6.99 (y)	

Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)		
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)		
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)		
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)		
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)		
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)		
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)		
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)		
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)		
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)		
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)		
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)		
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals :	2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)		
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals :	2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)		
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals :	2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)		
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals :	2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)		
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals :	2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)		
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals :	2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)		
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals :	2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)		
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals :	2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)		
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals :	2
	Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)		
Step 29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals :	2
	Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)		
Step 30 :	Activation of	4.29096E+06(s), i.e.	49.66 (d)	29.11 (y)	Intervals :	2
	Cold Pause of	2.72450E+07(s), i.e.	315.34 (d)	29.98 (y)		
Step 31 :	Activation of	2.37474E+06(s), i.e.	27.49 (d)	30.05 (y)	Intervals :	2
	Cold Pause of	2.91613E+07(s), i.e.	337.52 (d)	30.98 (y)		
Step 32 :	Activation of	1.67827E+06(s), i.e.	19.42 (d)	31.03 (y)	Intervals :	2
	Cold Pause of	2.98577E+07(s), i.e.	345.58 (d)	31.98 (y)		
Step 33 :	Activation of	1.58702E+06(s), i.e.	18.37 (d)	32.03 (y)	Intervals :	2
	Cold Pause of	2.99490E+07(s), i.e.	346.63 (d)	32.97 (y)		
Step 34 :	Activation of	1.45885E+06(s), i.e.	16.88 (d)	33.02 (y)	Intervals :	2
	Cold Pause of	3.00772E+07(s), i.e.	348.12 (d)	33.97 (y)		
Step 35 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	34.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	34.97 (y)		
Step 36 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	35.05 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	35.97 (y)		
Step 37 :	Activation of	1.80003E+06(s), i.e.	20.83 (d)	36.03 (y)	Intervals :	2
	Cold Pause of	2.97360E+07(s), i.e.	344.17 (d)	36.97 (y)		
Step 38 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	37.04 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	37.97 (y)		
Step 39 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	38.04 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	38.97 (y)		

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Step   40 : Activation of  7.76520E+04(s), i.e.      21.57 (h)     38.97 (y)        Intervals :  2

 Cooling Times (s)  :

   3.1458E+07

    364.1 (d)

 AJBRF Reactor

 Step :   1

 Elapsed Time    :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time    :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05

 Step :   2

 Elapsed Time    :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time    :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05

 Step :   3

 Elapsed Time    :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time    :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

 Step :   4

 Elapsed Time    :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time    :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

 Step :   5

 Elapsed Time    :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time    :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

 Step :   6

 Elapsed Time    :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time    :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

 Step :   7

 Elapsed Time    :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
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Elapsed Time   :     13.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04
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Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.9840E-13 1.237079E+02   2.1478E-01   4.5445E+02   1.2282E-08   1.5118E-04

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0852E-09 1.237083E+02   3.1944E+03   1.5906E+04   4.2989E-07   4.3863E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   8.7223E-13 1.237079E+02   3.6003E-01   5.6065E+02   1.5153E-08   1.8745E-04

Step :  29

Elapsed Time   :     28.08 (y)
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```
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   6.0767E-09 1.237083E+02   3.1884E+03   1.5905E+04   4.2986E-07   4.3279E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   7.9222E-13 1.237079E+02   2.8940E-01   5.9070E+02   1.5965E-08   1.9661E-04

Step :  30

Elapsed Time   :     29.11 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   6.0861E-09 1.237083E+02   3.1950E+03   1.6048E+04   4.3373E-07   4.4388E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   9.8976E-13 1.237079E+02   3.9220E-01   6.7162E+02   1.8152E-08   2.2417E-04

Step :  31

Elapsed Time   :     30.05 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   6.0690E-09 1.237082E+02   3.1829E+03   1.5927E+04   4.3046E-07   4.2826E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   6.0077E-13 1.237079E+02   1.3240E-01   6.3659E+02   1.7205E-08   2.1010E-04

Step :  32

Elapsed Time   :     31.03 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   6.0610E-09 1.237082E+02   3.1772E+03   1.5812E+04   4.2734E-07   4.1902E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   5.4388E-13 1.237079E+02   1.1986E-01   5.7631E+02   1.5576E-08   1.9020E-04

Step :  33

Elapsed Time   :     32.03 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   6.0598E-09 1.237081E+02   3.1764E+03   1.5741E+04   4.2542E-07   4.1590E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   4.9548E-13 1.237079E+02   1.0920E-01   5.2502E+02   1.4190E-08   1.7327E-04

Step :  34

Elapsed Time   :     33.02 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   6.0581E-09 1.237081E+02   3.1753E+03   1.5674E+04   4.2362E-07   4.1262E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   4.5195E-13 1.237079E+02   9.9603E-02   4.7889E+02   1.2943E-08   1.5805E-04

Step :  35

Elapsed Time   :     34.05 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5727E+04   4.2507E-07   4.2084E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   4.5626E-13 1.237079E+02   1.0055E-01   4.8346E+02   1.3066E-08   1.5956E-04

Step :  36

Elapsed Time   :     35.05 (y)
          N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:  8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5732E+04   4.2519E-07   4.2103E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
```

Elapsed Time : 35.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.5961E-13	1.237079E+02	1.0129E-01	4.8700E+02	1.3162E-08	1.6073E-04

Step : 37

Elapsed Time : 36.03 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0623E-09	1.237082E+02	3.1782E+03	1.5679E+04	4.2375E-07	4.1562E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 36.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.3997E-13	1.237079E+02	9.6961E-02	4.6619E+02	1.2600E-08	1.5386E-04

Step : 38

Elapsed Time : 37.04 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0676E-09	1.237082E+02	3.1820E+03	1.5715E+04	4.2473E-07	4.2045E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 37.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.4696E-13	1.237079E+02	9.8502E-02	4.7360E+02	1.2800E-08	1.5630E-04

Step : 39

Elapsed Time : 38.04 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0677E-09	1.237082E+02	3.1820E+03	1.5722E+04	4.2493E-07	4.2071E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 38.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.5238E-13	1.237079E+02	9.9698E-02	4.7935E+02	1.2955E-08	1.5820E-04

Step : 40
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 38.97 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	3.7171E+06	6.3129E-15	2.1799E-08	4.3908E-03	1.0765E+00	2.9094E-11	4.0930E-08	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9921E+08	6.0149E-09	8.0564E-05	3.1499E+03	1.4873E+04	4.0197E-07	3.7182E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	6.0255E+10	4.5666E-13	5.6862E-05	1.0064E-01	4.8391E+02	1.3079E-08	1.5971E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	3.7219E+07	1.4052E-12	7.7936E-06	9.9381E-01	6.7106E+00	1.8137E-10	1.2069E-05	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60ml	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60ml
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								

Cu 64	5.6769E+05	4.3605E-13	2.8767E-08	2.0421E-01	8.6051E+00	2.3257E-10	1.0330E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	3.5098E+05	6.1434E-13	8.3983E-08	1.3854E-01	2.5674E+00	6.9390E-11	4.1079E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7979E+01	2.6089E-13	9.2975E-12	5.8301E-03	1.3463E+00	3.6386E-11	8.8572E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 80 Nuclides.

Totals:	8.5807E+22	6.0187E-09	1.237080E+02	3.1514E+03	1.5384E+04	4.1579E-07	3.8952E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 38.97 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.71773E+07
He	5.90916E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.79316E-02
C	2.44077E+07
N	2.65812E+17
O	1.04100E-05
Na	1.47231E+16
Mg	6.77712E+05
Al	3.22619E+17
Si	4.97479E+06
S	2.84081E-02
Cl	3.14320E+04
Ar	1.91455E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	6.07557E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.90629E+06
Ge	1.22410E+02
As	8.32629E+16
Se	5.34891E+08
Br	6.05099E+14
Kr	5.79325E+06
Rb	1.13142E+16
Sr	7.92054E+06
Y	1.00525E+01
Zr	4.46100E+03
Nb	1.21251E+04

Mo	1.09868E+17
Tc	2.12710E+07
Ru	5.18187E+06
Pd	3.16328E+05
Ag	1.79299E+15
Cd	1.38551E+08
In	5.01239E-06
Sn	5.36813E+06
Sb	1.86661E+16
Te	3.25421E+08
I	4.58316E-03
Xe	2.72156E+06
Cs	5.56583E+05
Ba	1.40818E+17
La	2.18713E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.68823E-02
Ta	1.22498E+05
W	3.94515E+15
Re	1.24429E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	8.2956E-01	1.5083E+01
2	(0.1 -> 0.2 MeV)	4.9946E-02	3.2223E-01
3	(0.2 -> 0.4 MeV)	4.0651E-02	1.3550E-01
4	(0.4 -> 0.6 MeV)	2.2355E+00	4.4709E+00
5	(0.6 -> 0.8 MeV)	1.5486E-01	2.2122E-01
6	(0.8 -> 1.0 MeV)	1.2451E+04	1.3835E+04
7	(1.0 ->1.22 MeV)	1.1103E+01	1.0003E+01
8	(1.22 ->1.44 MeV)	2.5712E+01	1.9332E+01
9	(1.44 ->1.66 MeV)	1.2795E-02	8.2546E-03
10	(1.66 -> 2.0 MeV)	7.4024E+03	4.0451E+03
11	(2.0 -> 2.5 MeV)	4.5057E+03	2.0025E+03
12	(2.5 -> 3.0 MeV)	7.9056E+02	2.8748E+02
13	(3.0 -> 4.0 MeV)	7.9283E+01	2.2652E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2652E+01	2.8748E+02
2.0025E+03	4.0451E+03	1.9340E+01	1.0003E+01	1.3835E+04	2.2122E-01
4.4709E+00	6.7751E-02	6.7751E-02	3.2223E-01	7.5415E+00	7.5415E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 364.10 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							

Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	4.6803E+10	3.5471E-13	4.4167E-05	7.8175E-02	3.7587E+02	1.0159E-08	1.2405E-04	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
364.1 (d)		3.5474E-13	1.237079E+02	7.8177E-02	3.7588E+02	1.0159E-08	1.2405E-04

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 364.10 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.2471E-01	1.1358E+01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00

2.0301E-09 0.0000E+00 0.0000E+00 0.0000E+00 5.6792E+00 5.6792E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 364.10 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.71773E+07
He	5.90916E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.79316E-02
C	2.44047E+07
N	2.65812E+17
O	1.05418E-05
Na	1.47231E+16
Mg	6.78081E+05
Al	3.22619E+17
Si	4.97480E+06
S	2.94384E-02
Cl	3.14382E+04
Ar	1.90927E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	6.11376E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.90655E+06
Ge	1.22449E+02
As	8.32629E+16
Se	5.35242E+08
Br	6.05099E+14
Kr	5.79472E+06
Rb	1.13142E+16
Sr	7.92667E+06
Y	1.00603E+01
Zr	4.46227E+03
Nb	1.27218E+04
Mo	1.09868E+17
Tc	2.12872E+07
Ru	5.18208E+06
Pd	3.16476E+05
Ag	1.79299E+15
Cd	1.38616E+08
In	0.00000E+00
Sn	5.37226E+06
Sb	1.86661E+16
Te	3.25724E+08
I	4.58721E-03
Xe	2.72390E+06
Cs	5.75288E+05
Ba	1.40818E+17
La	2.18731E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.68824E-02
Ta	1.23000E+05
W	3.94515E+15
Re	1.24537E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

AJBRF Soil (Side) Flux

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.878E-04	1.916E+03	1.538E+04	4.158E-01	3.895E-03	6.019E-09	1.237080E+02

364.1 (d)	1.954E-08	4.681E+01	3.759E+02	1.016E-02	1.241E-04	3.547E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.538E+04	7.878E-04	3.895E-03	6.019E-09
364.1 (d)	3.759E+02	1.954E-08	1.241E-04	3.547E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.916E+06	7.495E-10	5.178E-05	3.151E+03
364.1 (d)	4.681E+04	4.418E-14	1.265E-06	7.818E-02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.916E+03	7.878E-04	7.495E-10	3.303E+03
364.1 (d)	4.681E+01	1.954E-08	4.418E-14	1.560E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	

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Step   22 : Activation of  2.14200E+06(s), i.e.     24.79 (d)     21.05 (y)      Intervals :  2
            Cold Pause of  2.93940E+07(s), i.e.    340.21 (d)     21.98 (y)

Step   23 : Activation of  2.12400E+06(s), i.e.     24.58 (d)     22.05 (y)      Intervals :  2
            Cold Pause of  2.94120E+07(s), i.e.    340.42 (d)     22.98 (y)

Step   24 : Activation of  1.38060E+06(s), i.e.     15.98 (d)     23.03 (y)      Intervals :  2
            Cold Pause of  3.01554E+07(s), i.e.    349.02 (d)     23.98 (y)

Step   25 : Activation of  6.89330E+05(s), i.e.      7.98 (d)     24.00 (y)      Intervals :  2
            Cold Pause of  3.08467E+07(s), i.e.    357.02 (d)     24.98 (y)

Step   26 : Activation of  2.37945E+06(s), i.e.     27.54 (d)     25.06 (y)      Intervals :  2
            Cold Pause of  2.91565E+07(s), i.e.    337.46 (d)     25.98 (y)

Step   27 : Activation of  2.45055E+06(s), i.e.     28.36 (d)     26.06 (y)      Intervals :  2
            Cold Pause of  2.90854E+07(s), i.e.    336.64 (d)     26.98 (y)

Step   28 : Activation of  4.18396E+06(s), i.e.     48.43 (d)     27.11 (y)      Intervals :  2
            Cold Pause of  2.73520E+07(s), i.e.    316.57 (d)     27.98 (y)

Step   29 : Activation of  3.16070E+06(s), i.e.     36.58 (d)     28.08 (y)      Intervals :  2
            Cold Pause of  2.83753E+07(s), i.e.    328.42 (d)     28.98 (y)

Step   30 : Activation of  4.29096E+06(s), i.e.     49.66 (d)     29.11 (y)      Intervals :  2
            Cold Pause of  2.72450E+07(s), i.e.    315.34 (d)     29.98 (y)

Step   31 : Activation of  2.37474E+06(s), i.e.     27.49 (d)     30.05 (y)      Intervals :  2
            Cold Pause of  2.91613E+07(s), i.e.    337.52 (d)     30.98 (y)

Step   32 : Activation of  1.67827E+06(s), i.e.     19.42 (d)     31.03 (y)      Intervals :  2
            Cold Pause of  2.98577E+07(s), i.e.    345.58 (d)     31.98 (y)

Step   33 : Activation of  1.58702E+06(s), i.e.     18.37 (d)     32.03 (y)      Intervals :  2
            Cold Pause of  2.99490E+07(s), i.e.    346.63 (d)     32.97 (y)

Step   34 : Activation of  1.45885E+06(s), i.e.     16.88 (d)     33.02 (y)      Intervals :  2
            Cold Pause of  3.00772E+07(s), i.e.    348.12 (d)     33.97 (y)

Step   35 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     34.05 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     34.97 (y)

Step   36 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     35.05 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     35.97 (y)

Step   37 : Activation of  1.80003E+06(s), i.e.     20.83 (d)     36.03 (y)      Intervals :  2
            Cold Pause of  2.97360E+07(s), i.e.    344.17 (d)     36.97 (y)

Step   38 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     37.04 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     37.97 (y)

Step   39 : Activation of  2.27682E+06(s), i.e.     26.35 (d)     38.04 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.    338.65 (d)     38.97 (y)

Step   40 : Activation of  7.76520E+04(s), i.e.     21.57 (h)     38.97 (y)      Intervals :  2
            Cold Pause of  3.14583E+07(s), i.e.    364.10 (d)     39.97 (y)

Step   41 : Activation of  9.27846E+04(s), i.e.      1.07 (d)     39.97 (y)      Intervals :  2

Cooling Times (s)  :

  3.1443E+07

   363.9 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05
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Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12

Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.
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Elapsed Time   :     16.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     18.99 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04

Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:    8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04
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Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.9840E-13 1.237079E+02   2.1478E-01   4.5445E+02   1.2282E-08   1.5118E-04

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0852E-09 1.237083E+02   3.1944E+03   1.5906E+04   4.2989E-07   4.3863E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   8.7223E-13 1.237079E+02   3.6003E-01   5.6065E+02   1.5153E-08   1.8745E-04

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0767E-09 1.237083E+02   3.1884E+03   1.5905E+04   4.2986E-07   4.3279E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.9222E-13 1.237079E+02   2.8940E-01   5.9070E+02   1.5965E-08   1.9661E-04

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0861E-09 1.237083E+02   3.1950E+03   1.6048E+04   4.3373E-07   4.4388E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   9.8976E-13 1.237079E+02   3.9220E-01   6.7162E+02   1.8152E-08   2.2417E-04

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0690E-09 1.237082E+02   3.1829E+03   1.5927E+04   4.3046E-07   4.2826E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0077E-13 1.237079E+02   1.3240E-01   6.3659E+02   1.7205E-08   2.1010E-04

Step :  32

Elapsed Time   :     31.03 (y)
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            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0610E-09 1.237082E+02   3.1772E+03   1.5812E+04   4.2734E-07   4.1902E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.4388E-13 1.237079E+02   1.1986E-01   5.7631E+02   1.5576E-08   1.9020E-04


Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0598E-09 1.237081E+02   3.1764E+03   1.5741E+04   4.2542E-07   4.1590E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9548E-13 1.237079E+02   1.0920E-01   5.2502E+02   1.4190E-08   1.7327E-04


Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0581E-09 1.237081E+02   3.1753E+03   1.5674E+04   4.2362E-07   4.1262E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5195E-13 1.237079E+02   9.9603E-02   4.7889E+02   1.2943E-08   1.5805E-04


Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5727E+04   4.2507E-07   4.2084E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5626E-13 1.237079E+02   1.0055E-01   4.8346E+02   1.3066E-08   1.5956E-04


Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5732E+04   4.2519E-07   4.2103E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5961E-13 1.237079E+02   1.0129E-01   4.8700E+02   1.3162E-08   1.6073E-04


Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0623E-09 1.237082E+02   3.1782E+03   1.5679E+04   4.2375E-07   4.1562E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3997E-13 1.237079E+02   9.6961E-02   4.6619E+02   1.2600E-08   1.5386E-04


Step :  38

Elapsed Time   :     37.04 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5715E+04   4.2473E-07   4.2045E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     37.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4696E-13 1.237079E+02   9.8502E-02   4.7360E+02   1.2800E-08   1.5630E-04


Step :  39

Elapsed Time   :     38.04 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5722E+04   4.2493E-07   4.2071E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.
```

Elapsed Time : 38.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	4.5238E-13	1.237079E+02	9.9698E-02	4.7935E+02	1.2955E-08	1.5820E-04

Step : 40

Elapsed Time : 38.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	6.0187E-09	1.237080E+02	3.1514E+03	1.5384E+04	4.1579E-07	3.8952E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 39.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	3.5474E-13	1.237079E+02	7.8177E-02	3.7588E+02	1.0159E-08	1.2405E-04

Step : 41
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 39.97 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 51	4.4126E+06	7.4941E-15	2.5878E-08	5.2123E-03	1.2779E+00	3.4537E-11	4.8589E-08	2.770E+01 (d)	Cr 51
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.9962E+08	6.0273E-09	8.0730E-05	3.1564E+03	1.4904E+04	4.0280E-07	3.7259E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	4.7491E+10	3.5993E-13	4.4817E-05	7.9325E-02	3.8140E+02	1.0308E-08	1.2588E-04	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	3.9688E+07	1.4984E-12	8.3106E-06	1.0597E+00	7.1557E+00	1.9340E-10	1.2870E-05	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	6.1953E+05	4.7587E-13	3.1394E-08	2.2286E-01	9.3909E+00	2.5381E-10	1.1274E-06	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu.66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	2.9733E+14								
As 75	8.3263E+16								
As 76	3.9907E+05	6.9851E-13	9.5490E-08	1.5752E-01	2.9192E+00	7.8898E-11	4.6708E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								

Ag109	8.6352E+14								
Ag110	4.7978E+01	2.6088E-13	9.2973E-12	5.8300E-03	1.3463E+00	3.6386E-11	8.8570E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								
W180	4.7342E+12								
W182	1.0455E+15								
W183	5.6455E+14								
W184	1.2088E+15								
W186	1.1216E+15								

here are 80 Nuclides.

Totals: 8.5807E+22 6.0312E-09 1.237080E+02 3.1580E+03 1.5314E+04 4.1390E-07 3.8705E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 39.97 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.72053E+07
He	5.91523E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.79603E-02
C	2.44299E+07
N	2.65812E+17
O	1.06736E-05
Na	1.47231E+16
Mg	6.78369E+05
Al	3.22619E+17
Si	4.97994E+06
S	2.94415E-02
Cl	3.14632E+04
Ar	1.91204E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	6.11384E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.90927E+06
Ge	1.22530E+02
As	8.32629E+16
Se	5.35393E+08
Br	6.05099E+14
Kr	5.79902E+06
Rb	1.13142E+16
Sr	7.92752E+06
Y	1.00615E+01
Zr	4.46535E+03
Nb	1.27253E+04
Mo	1.09868E+17
Tc	2.12900E+07
Ru	5.18726E+06
Pd	3.16797E+05
Ag	1.79299E+15
Cd	1.38752E+08
In	5.01239E-06
Sn	5.37295E+06
Sb	1.86661E+16
Te	3.25754E+08
I	4.58726E-03
Xe	2.72390E+06
Cs	5.75426E+05
Ba	1.40818E+17
La	2.18937E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00

Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.69716E-02
Ta	1.23001E+05
W	3.94515E+15
Re	1.24568E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	6.6037E-01	1.2007E+01
2	(0.1 -> 0.2 MeV)	5.3259E-02	3.4361E-01
3	(0.2 -> 0.4 MeV)	4.7450E-02	1.5817E-01
4	(0.4 -> 0.6 MeV)	2.4699E+00	4.9398E+00
5	(0.6 -> 0.8 MeV)	1.7062E-01	2.4375E-01
6	(0.8 -> 1.0 MeV)	1.2477E+04	1.3863E+04
7	(1.0 ->1.22 MeV)	1.1419E+01	1.0287E+01
8	(1.22 ->1.44 MeV)	2.6017E+01	1.9562E+01
9	(1.44 ->1.66 MeV)	1.4073E-02	9.0794E-03
10	(1.66 -> 2.0 MeV)	7.4177E+03	4.0534E+03
11	(2.0 -> 2.5 MeV)	4.5149E+03	2.0066E+03
12	(2.5 -> 3.0 MeV)	7.9219E+02	2.8807E+02
13	(3.0 -> 4.0 MeV)	7.9446E+01	2.2699E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.2699E+01	2.8807E+02
2.0066E+03	4.0534E+03	1.9571E+01	1.0287E+01	1.3863E+04	2.4375E-01
4.9398E+00	7.9083E-02	7.9083E-02	3.4361E-01	6.0034E+00	6.0034E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 363.93 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	3.6893E+10	2.7961E-13	3.4816E-05	6.1623E-02	2.9629E+02	8.0078E-09	9.7785E-05	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							

Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
363.9 (d)		2.7963E-13	1.237079E+02	6.1625E-02	2.9629E+02	8.0079E-09	9.7788E-05

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 363.93 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	4.9244E-01	8.9534E+00
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	4.4767E+00	4.4767E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 363.93 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.72053E+07
He	5.91523E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.79603E-02
C	2.44269E+07
N	2.65812E+17
O	1.08053E-05
Na	1.47231E+16
Mg	6.78776E+05
Al	3.22619E+17
Si	4.97995E+06
S	3.04724E-02

Cl	3.14703E+04
Ar	1.90667E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	6.12682E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.90953E+06
Ge	1.22575E+02
As	8.32629E+16
Se	5.35792E+08
Br	6.05099E+14
Kr	5.80067E+06
Rb	1.13142E+16
Sr	7.93481E+06
Y	1.00707E+01
Zr	4.46686E+03
Nb	1.33221E+04
Mo	1.09868E+17
Tc	2.13090E+07
Ru	5.18747E+06
Pd	3.16945E+05
Ag	1.79299E+15
Cd	1.38780E+08
In	0.00000E+00
Sn	5.37778E+06
Sb	1.86661E+16
Te	3.26059E+08
I	4.59192E-03
Xe	2.72670E+06
Cs	5.92963E+05
Ba	1.40818E+17
La	2.18954E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.69717E-02
Ta	1.23174E+05
W	3.94515E+15
Re	1.24666E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.895E-04	1.907E+03	1.531E+04	4.139E-01	3.871E-03	6.031E-09	1.237080E+02
363.9 (d)	1.541E-08	3.690E+01	2.963E+02	8.008E-03	9.779E-05	2.796E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar

Time	Becquerel	Sv/h	ALI	Watt
zero	1.531E+04	7.895E-04	3.871E-03	6.031E-09
363.9 (d)	2.963E+02	1.541E-08	9.779E-05	2.796E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.907E+06	7.511E-10	5.154E-05	3.158E+03
363.9 (d)	3.690E+04	3.482E-14	9.972E-07	6.163E-02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.907E+03	7.895E-04	7.511E-10	3.310E+03
363.9 (d)	3.690E+01	1.541E-08	3.482E-14	1.230E-01

				Elapsed Time.	
Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	
Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)	
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)	
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)	
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)	
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)	
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)	
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)	
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)	
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)	
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)	
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)	
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)	
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)	
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)	
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)	
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)	
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)	
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals : 2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)	
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals : 2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)	
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals : 2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)	
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals : 2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)	
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals : 2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)	
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals : 2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)	
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals : 2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)	
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals : 2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)	
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals : 2
	Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)	
Step 29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals : 2
	Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)	
Step 30 :	Activation of	4.29096E+06(s), i.e.	49.66 (d)	29.11 (y)	Intervals : 2
	Cold Pause of	2.72450E+07(s), i.e.	315.34 (d)	29.98 (y)	

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Step   31 : Activation of  2.37474E+06(s), i.e.    27.49 (d)    30.05 (y)      Intervals :  2
            Cold Pause of  2.91613E+07(s), i.e.   337.52 (d)    30.98 (y)

Step   32 : Activation of  1.67827E+06(s), i.e.    19.42 (d)    31.03 (y)      Intervals :  2
            Cold Pause of  2.98577E+07(s), i.e.   345.58 (d)    31.98 (y)

Step   33 : Activation of  1.58702E+06(s), i.e.    18.37 (d)    32.03 (y)      Intervals :  2
            Cold Pause of  2.99490E+07(s), i.e.   346.63 (d)    32.97 (y)

Step   34 : Activation of  1.45885E+06(s), i.e.    16.88 (d)    33.02 (y)      Intervals :  2
            Cold Pause of  3.00772E+07(s), i.e.   348.12 (d)    33.97 (y)

Step   35 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    34.05 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    34.97 (y)

Step   36 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    35.05 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    35.97 (y)

Step   37 : Activation of  1.80003E+06(s), i.e.    20.83 (d)    36.03 (y)      Intervals :  2
            Cold Pause of  2.97360E+07(s), i.e.   344.17 (d)    36.97 (y)

Step   38 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    37.04 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    37.97 (y)

Step   39 : Activation of  2.27682E+06(s), i.e.    26.35 (d)    38.04 (y)      Intervals :  2
            Cold Pause of  2.92592E+07(s), i.e.   338.65 (d)    38.97 (y)

Step   40 : Activation of  7.76520E+04(s), i.e.    21.57 (h)    38.97 (y)      Intervals :  2
            Cold Pause of  3.14583E+07(s), i.e.   364.10 (d)    39.97 (y)

Step   41 : Activation of  9.27846E+04(s), i.e.     1.07 (d)    39.97 (y)      Intervals :  2
            Cold Pause of  3.14432E+07(s), i.e.   363.93 (d)    40.97 (y)

Step   42 : Activation of  3.93660E+04(s), i.e.    10.94 (h)    40.97 (y)      Intervals :  2

Cooling Times (s)  :

  3.1497E+07

   364.5 (d)

AJBRF Reactor


Step :   1

Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05


Step :   2

Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05


Step :   3

Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05


Step :   4

Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

Step :   5

Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      5.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

Step :   6

Elapsed Time   :      5.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      6.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

Step :   7

Elapsed Time   :      6.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      6.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

Step :   8

Elapsed Time   :      7.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      7.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

Step :   9

Elapsed Time   :      8.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      8.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

Step :  10

Elapsed Time   :      9.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :      9.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

Step :  11

Elapsed Time   :     10.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
         Production of  H  :      0. appm/y.
         Production of He  :      0. appm/y.

Elapsed Time   :     10.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

Step :  12
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Elapsed Time   :     11.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     11.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time   :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time   :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time   :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time   :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time   :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time   :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time   :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
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        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04


 Step :  20

 Elapsed Time   :     19.09 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     19.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04


 Step :  21

 Elapsed Time   :     20.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     20.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04


 Step :  22

 Elapsed Time   :     21.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     21.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04


 Step :  23

 Elapsed Time   :     22.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     22.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04


 Step :  24

 Elapsed Time   :     23.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     23.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04


 Step :  25

 Elapsed Time   :     24.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     24.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04


 Step :  26

 Elapsed Time   :     25.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

 Elapsed Time   :     25.98 (y)
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            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.9840E-13 1.237079E+02   2.1478E-01   4.5445E+02   1.2282E-08   1.5118E-04

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0852E-09 1.237083E+02   3.1944E+03   1.5906E+04   4.2989E-07   4.3863E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   8.7223E-13 1.237079E+02   3.6003E-01   5.6065E+02   1.5153E-08   1.8745E-04

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0767E-09 1.237083E+02   3.1884E+03   1.5905E+04   4.2986E-07   4.3279E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.9222E-13 1.237079E+02   2.8940E-01   5.9070E+02   1.5965E-08   1.9661E-04

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0861E-09 1.237083E+02   3.1950E+03   1.6048E+04   4.3373E-07   4.4388E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   9.8976E-13 1.237079E+02   3.9220E-01   6.7162E+02   1.8152E-08   2.2417E-04

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0690E-09 1.237082E+02   3.1829E+03   1.5927E+04   4.3046E-07   4.2826E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0077E-13 1.237079E+02   1.3240E-01   6.3659E+02   1.7205E-08   2.1010E-04

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0610E-09 1.237082E+02   3.1772E+03   1.5812E+04   4.2734E-07   4.1902E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.4388E-13 1.237079E+02   1.1986E-01   5.7631E+02   1.5576E-08   1.9020E-04

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0598E-09 1.237081E+02   3.1764E+03   1.5741E+04   4.2542E-07   4.1590E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9548E-13 1.237079E+02   1.0920E-01   5.2502E+02   1.4190E-08   1.7327E-04
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Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0581E-09 1.237081E+02   3.1753E+03   1.5674E+04   4.2362E-07   4.1262E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     33.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5195E-13 1.237079E+02   9.9603E-02   4.7889E+02   1.2943E-08   1.5805E-04


Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5727E+04   4.2507E-07   4.2084E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5626E-13 1.237079E+02   1.0055E-01   4.8346E+02   1.3066E-08   1.5956E-04


Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5732E+04   4.2519E-07   4.2103E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5961E-13 1.237079E+02   1.0129E-01   4.8700E+02   1.3162E-08   1.6073E-04


Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0623E-09 1.237082E+02   3.1782E+03   1.5679E+04   4.2375E-07   4.1562E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3997E-13 1.237079E+02   9.6961E-02   4.6619E+02   1.2600E-08   1.5386E-04


Step :  38

Elapsed Time   :     37.04 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5715E+04   4.2473E-07   4.2045E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     37.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4696E-13 1.237079E+02   9.8502E-02   4.7360E+02   1.2800E-08   1.5630E-04


Step :  39

Elapsed Time   :     38.04 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5722E+04   4.2493E-07   4.2071E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     38.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5238E-13 1.237079E+02   9.9698E-02   4.7935E+02   1.2955E-08   1.5820E-04


Step :  40

Elapsed Time   :     38.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0187E-09 1.237080E+02   3.1514E+03   1.5384E+04   4.1579E-07   3.8952E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     39.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.5474E-13 1.237079E+02   7.8177E-02   3.7588E+02   1.0159E-08   1.2405E-04


Step :  41

Elapsed Time   :     39.97 (y)
            N/cm3        WATT/cm3      JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:	8.5807E+22	6.0312E-09	1.237080E+02	3.1580E+03	1.5314E+04	4.1390E-07	3.8705E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 40.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	2.7963E-13	1.237079E+02	6.1625E-02	2.9629E+02	8.0079E-09	9.7788E-05

Step : 42
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 40.97 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.8924E+08	5.7140E-09	7.6533E-05	2.9923E+03	1.4129E+04	3.8186E-07	3.5322E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	3.7189E+10	2.8184E-13	3.5094E-05	6.2116E-02	2.9866E+02	8.0719E-09	9.8568E-05	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	1.7002E+07	6.4190E-13	3.5602E-06	4.5398E-01	3.0654E+00	8.2850E-11	5.5134E-06	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	3.6876E+05	2.8324E-13	1.8686E-08	1.3265E-01	5.5896E+00	1.5107E-10	6.7102E-07	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								
Zn 70	2.9733E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
As 75	8.3263E+16								
As 76	2.0265E+05	3.5470E-13	4.8490E-08	7.9990E-02	1.4824E+00	4.0064E-11	2.3718E-06	1.097E+00 (d)	As 76
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7978E+01	2.6088E-13	9.2972E-12	5.8299E-03	1.3463E+00	3.6385E-11	8.8570E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								
Ba135	9.2828E+15								
Ba136	1.1060E+16								
Ba137	1.5817E+16								
Ba138	1.0096E+17								

W180	4.7342E+12
W182	1.0455E+15
W183	5.6455E+14
W184	1.2088E+15
W186	1.1216E+15

here are 79 Nuclides.

Totals: 8.5807E+22 5.7164E-09 1.237080E+02 2.9931E+03 1.4446E+04 3.9044E-07 3.6394E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 40.97 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.72171E+07
He	5.91780E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.79725E-02
C	2.44376E+07
N	2.65812E+17
O	1.09371E-05
Na	1.47231E+16
Mg	6.78838E+05
Al	3.22619E+17
Si	4.98213E+06
S	3.04737E-02
Cl	3.14809E+04
Ar	1.90785E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	6.12691E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.91058E+06
Ge	1.22613E+02
As	8.32629E+16
Se	5.35823E+08
Br	6.05099E+14
Kr	5.80228E+06
Rb	1.13142E+16
Sr	7.93513E+06
Y	1.00709E+01
Zr	4.46815E+03
Nb	1.33235E+04
Mo	1.09868E+17
Tc	2.13096E+07
Ru	5.18959E+06
Pd	3.17081E+05
Ag	1.79299E+15
Cd	1.38837E+08
In	5.01239E-06
Sn	5.37791E+06
Sb	1.86661E+16
Te	3.26065E+08
I	4.59193E-03
Xe	2.72670E+06
Cs	5.93000E+05
Ba	1.40818E+17
La	2.19034E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.70095E-02
Ta	1.23174E+05
W	3.94515E+15
Re	1.24672E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	5.1682E-01	9.3968E+00
2	(0.1 -> 0.2 MeV)	2.2817E-02	1.4720E-01
3	(0.2 -> 0.4 MeV)	3.1016E-03	1.0339E-02
4	(0.4 -> 0.6 MeV)	1.4042E+00	2.8085E+00
5	(0.6 -> 0.8 MeV)	1.0621E-01	1.5173E-01
6	(0.8 -> 1.0 MeV)	1.1828E+04	1.3143E+04
7	(1.0 ->1.22 MeV)	8.4291E+00	7.5938E+00
8	(1.22 ->1.44 MeV)	2.2546E+01	1.6952E+01
9	(1.44 ->1.66 MeV)	6.9665E-03	4.4945E-03
10	(1.66 -> 2.0 MeV)	7.0321E+03	3.8427E+03
11	(2.0 -> 2.5 MeV)	4.2802E+03	1.9023E+03
12	(2.5 -> 3.0 MeV)	7.5101E+02	2.7309E+02
13	(3.0 -> 4.0 MeV)	7.5316E+01	2.1519E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.1519E+01	2.7309E+02
1.9023E+03	3.8427E+03	1.6957E+01	7.5938E+00	1.3143E+04	1.5173E-01
2.8085E+00	5.1694E-03	5.1694E-03	1.4720E-01	4.6984E+00	4.6984E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 364.54 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	2.8877E+10	2.1885E-13	2.7251E-05	4.8234E-02	2.3191E+02	6.2679E-09	7.6539E-05	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
364.5 (d)		2.1888E-13	1.237079E+02	4.8236E-02	2.3191E+02	6.2679E-09	7.6542E-05

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 364.54 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	3.8544E-01	7.0080E+00
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	3.5040E+00	3.5040E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 364.54 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.72171E+07
He	5.91780E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.79725E-02
C	2.44347E+07
N	2.65812E+17
O	1.10689E-05
Na	1.47231E+16
Mg	6.79070E+05
Al	3.22619E+17
Si	4.98214E+06
S	3.15068E-02
Cl	3.14839E+04
Ar	1.90289E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	6.13174E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16

Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.91080E+06
Ge	1.22628E+02
As	8.32629E+16
Se	5.36026E+08
Br	6.05099E+14
Kr	5.80319E+06
Rb	1.13142E+16
Sr	7.93827E+06
Y	1.00751E+01
Zr	4.46880E+03
Nb	1.39223E+04
Mo	1.09868E+17
Tc	2.13182E+07
Ru	5.18980E+06
Pd	3.17229E+05
Ag	1.79299E+15
Cd	1.38849E+08
In	0.00000E+00
Sn	5.38012E+06
Sb	1.86661E+16
Te	3.26202E+08
I	4.59393E-03
Xe	2.72789E+06
Cs	6.09541E+05
Ba	1.40818E+17
La	2.19051E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.70096E-02
Ta	1.23242E+05
W	3.94515E+15
Re	1.24720E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	7.483E-04	1.799E+03	1.445E+04	3.904E-01	3.639E-03	5.716E-09	1.237080E+02
364.5 (d)	1.206E-08	2.888E+01	2.319E+02	6.268E-03	7.654E-05	2.189E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	1.445E+04	7.483E-04	3.639E-03	5.716E-09
364.5 (d)	2.319E+02	1.206E-08	7.654E-05	2.189E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.799E+06	7.119E-10	4.862E-05	2.993E+03
364.5 (d)	2.888E+04	2.726E-14	7.806E-07	4.824E-02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.799E+03	7.483E-04	7.119E-10	3.137E+03
364.5 (d)	2.888E+01	1.206E-08	2.726E-14	9.627E-02

Elapsed Time.

Step 1 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	26.35 (d)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	365.00 (d)	
Step 2 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	1.07 (y)	Intervals : 2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	2.00 (y)	

Step 3 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	2.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	3.00 (y)		
Step 4 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	3.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	4.00 (y)		
Step 5 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	4.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	5.00 (y)		
Step 6 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	5.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.00 (y)		
Step 7 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	6.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	6.99 (y)		
Step 8 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	7.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	7.99 (y)		
Step 9 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	8.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	8.99 (y)		
Step 10 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	9.07 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	9.99 (y)		
Step 11 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	10.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	10.99 (y)		
Step 12 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	11.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	11.99 (y)		
Step 13 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	12.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	12.99 (y)		
Step 14 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	13.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	13.99 (y)		
Step 15 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	14.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	14.99 (y)		
Step 16 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	15.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	15.99 (y)		
Step 17 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	16.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	16.99 (y)		
Step 18 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	17.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	17.99 (y)		
Step 19 :	Activation of	2.27682E+06(s), i.e.	26.35 (d)	18.06 (y)	Intervals :	2
	Cold Pause of	2.92592E+07(s), i.e.	338.65 (d)	18.99 (y)		
Step 20 :	Activation of	3.31020E+06(s), i.e.	38.31 (d)	19.09 (y)	Intervals :	2
	Cold Pause of	2.82258E+07(s), i.e.	326.69 (d)	19.98 (y)		
Step 21 :	Activation of	2.82600E+06(s), i.e.	32.71 (d)	20.07 (y)	Intervals :	2
	Cold Pause of	2.87100E+07(s), i.e.	332.29 (d)	20.98 (y)		
Step 22 :	Activation of	2.14200E+06(s), i.e.	24.79 (d)	21.05 (y)	Intervals :	2
	Cold Pause of	2.93940E+07(s), i.e.	340.21 (d)	21.98 (y)		
Step 23 :	Activation of	2.12400E+06(s), i.e.	24.58 (d)	22.05 (y)	Intervals :	2
	Cold Pause of	2.94120E+07(s), i.e.	340.42 (d)	22.98 (y)		
Step 24 :	Activation of	1.38060E+06(s), i.e.	15.98 (d)	23.03 (y)	Intervals :	2
	Cold Pause of	3.01554E+07(s), i.e.	349.02 (d)	23.98 (y)		
Step 25 :	Activation of	6.89330E+05(s), i.e.	7.98 (d)	24.00 (y)	Intervals :	2
	Cold Pause of	3.08467E+07(s), i.e.	357.02 (d)	24.98 (y)		
Step 26 :	Activation of	2.37945E+06(s), i.e.	27.54 (d)	25.06 (y)	Intervals :	2
	Cold Pause of	2.91565E+07(s), i.e.	337.46 (d)	25.98 (y)		
Step 27 :	Activation of	2.45055E+06(s), i.e.	28.36 (d)	26.06 (y)	Intervals :	2
	Cold Pause of	2.90854E+07(s), i.e.	336.64 (d)	26.98 (y)		
Step 28 :	Activation of	4.18396E+06(s), i.e.	48.43 (d)	27.11 (y)	Intervals :	2
	Cold Pause of	2.73520E+07(s), i.e.	316.57 (d)	27.98 (y)		
Step 29 :	Activation of	3.16070E+06(s), i.e.	36.58 (d)	28.08 (y)	Intervals :	2
	Cold Pause of	2.83753E+07(s), i.e.	328.42 (d)	28.98 (y)		
Step 30 :	Activation of	4.29096E+06(s), i.e.	49.66 (d)	29.11 (y)	Intervals :	2
	Cold Pause of	2.72450E+07(s), i.e.	315.34 (d)	29.98 (y)		
Step 31 :	Activation of	2.37474E+06(s), i.e.	27.49 (d)	30.05 (y)	Intervals :	2
	Cold Pause of	2.91613E+07(s), i.e.	337.52 (d)	30.98 (y)		
Step 32 :	Activation of	1.67827E+06(s), i.e.	19.42 (d)	31.03 (y)	Intervals :	2
	Cold Pause of	2.98577E+07(s), i.e.	345.58 (d)	31.98 (y)		
Step 33 :	Activation of	1.58702E+06(s), i.e.	18.37 (d)	32.03 (y)	Intervals :	2
	Cold Pause of	2.99490E+07(s), i.e.	346.63 (d)	32.97 (y)		
Step 34 :	Activation of	1.45885E+06(s), i.e.	16.88 (d)	33.02 (y)	Intervals :	2

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                Cold Pause of  3.00772E+07(s), i.e.     348.12 (d)     33.97 (y)

      Step   35 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     34.05 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     34.97 (y)

      Step   36 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     35.05 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     35.97 (y)

      Step   37 : Activation of  1.80003E+06(s), i.e.      20.83 (d)     36.03 (y)        Intervals :  2
                  Cold Pause of  2.97360E+07(s), i.e.     344.17 (d)     36.97 (y)

      Step   38 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     37.04 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     37.97 (y)

      Step   39 : Activation of  2.27682E+06(s), i.e.      26.35 (d)     38.04 (y)        Intervals :  2
                  Cold Pause of  2.92592E+07(s), i.e.     338.65 (d)     38.97 (y)

      Step   40 : Activation of  7.76520E+04(s), i.e.      21.57 (h)     38.97 (y)        Intervals :  2
                  Cold Pause of  3.14583E+07(s), i.e.     364.10 (d)     39.97 (y)

      Step   41 : Activation of  9.27846E+04(s), i.e.       1.07 (d)     39.97 (y)        Intervals :  2
                  Cold Pause of  3.14432E+07(s), i.e.     363.93 (d)     40.97 (y)

      Step   42 : Activation of  3.93660E+04(s), i.e.      10.94 (h)     40.97 (y)        Intervals :  2
                  Cold Pause of  3.14966E+07(s), i.e.     364.54 (d)     41.97 (y)

      Step   43 : Activation of  1.13220E+04(s), i.e.       3.14 (h)     41.97 (y)        Intervals :  2

 Cooling Times (s)  :

    3.1525E+07

     364.9 (d)

 AJBRF Reactor

 Step :   1

 Elapsed Time   :     26.35 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0671E-09 1.237081E+02   3.1819E+03   1.5257E+04   4.1235E-07   4.0527E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time   :    365.00 (d)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   1.0545E-13 1.237079E+02   2.3236E-02   1.1171E+02   3.0193E-09   3.6871E-05

 Step :   2

 Elapsed Time   :      1.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0673E-09 1.237081E+02   3.1819E+03   1.5367E+04   4.1533E-07   4.0898E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time   :      2.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   1.8728E-13 1.237079E+02   4.1272E-02   1.9843E+02   5.3630E-09   6.5491E-05

 Step :   3

 Elapsed Time   :      2.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0674E-09 1.237082E+02   3.1820E+03   1.5452E+04   4.1763E-07   4.1179E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time   :      3.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   2.5081E-13 1.237079E+02   5.5272E-02   2.6575E+02   7.1823E-09   8.7707E-05

 Step :   4

 Elapsed Time   :      3.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5518E+04   4.1942E-07   4.1397E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

 Elapsed Time   :      4.00 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   3.0012E-13 1.237079E+02   6.6140E-02   3.1800E+02   8.5946E-09   1.0495E-04

 Step :   5

 Elapsed Time   :      4.07 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0675E-09 1.237082E+02   3.1820E+03   1.5570E+04   4.2080E-07   4.1567E-03
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          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :       5.00 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   3.3840E-13 1.237079E+02   7.4577E-02   3.5856E+02   9.6909E-09   1.1834E-04

 Step :   6

 Elapsed Time   :       5.07 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5610E+04   4.2188E-07   4.1698E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :       6.00 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   3.6812E-13 1.237079E+02   8.1125E-02   3.9005E+02   1.0542E-08   1.2873E-04

 Step :   7

 Elapsed Time   :       6.07 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5640E+04   4.2272E-07   4.1800E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :       6.99 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   3.9118E-13 1.237079E+02   8.6209E-02   4.1449E+02   1.1203E-08   1.3680E-04

 Step :   8

 Elapsed Time   :       7.07 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5664E+04   4.2336E-07   4.1879E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :       7.99 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.0909E-13 1.237079E+02   9.0155E-02   4.3347E+02   1.1715E-08   1.4306E-04

 Step :   9

 Elapsed Time   :       8.07 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5683E+04   4.2387E-07   4.1941E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :       8.99 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.2299E-13 1.237079E+02   9.3219E-02   4.4820E+02   1.2113E-08   1.4792E-04

 Step :  10

 Elapsed Time   :       9.07 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5698E+04   4.2426E-07   4.1989E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :       9.99 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.3378E-13 1.237079E+02   9.5597E-02   4.5963E+02   1.2422E-08   1.5170E-04

 Step :  11

 Elapsed Time   :      10.06 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5709E+04   4.2456E-07   4.2026E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :      10.99 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   4.4215E-13 1.237079E+02   9.7442E-02   4.6850E+02   1.2662E-08   1.5462E-04

 Step :  12

 Elapsed Time   :      11.06 (y)
              N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
 otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5717E+04   4.2480E-07   4.2054E-03
          Production of  H  :       0. appm/y.
          Production of He  :       0. appm/y.

 Elapsed Time   :      11.99 (y)
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            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4865E-13 1.237079E+02   9.8875E-02   4.7539E+02   1.2848E-08   1.5690E-04

Step :  13

Elapsed Time    :     12.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5724E+04   4.2498E-07   4.2077E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :     12.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5370E-13 1.237079E+02   9.9988E-02   4.8074E+02   1.2993E-08   1.5866E-04

Step :  14

Elapsed Time    :     13.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5730E+04   4.2512E-07   4.2094E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :     13.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5762E-13 1.237079E+02   1.0085E-01   4.8489E+02   1.3105E-08   1.6003E-04

Step :  15

Elapsed Time    :     14.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5734E+04   4.2523E-07   4.2107E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :     14.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6066E-13 1.237079E+02   1.0152E-01   4.8812E+02   1.3192E-08   1.6110E-04

Step :  16

Elapsed Time    :     15.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5737E+04   4.2532E-07   4.2118E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :     15.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6302E-13 1.237079E+02   1.0204E-01   4.9062E+02   1.3260E-08   1.6192E-04

Step :  17

Elapsed Time    :     16.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5739E+04   4.2538E-07   4.2126E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :     16.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6485E-13 1.237079E+02   1.0245E-01   4.9256E+02   1.3312E-08   1.6256E-04

Step :  18

Elapsed Time    :     17.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5741E+04   4.2544E-07   4.2132E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :     17.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6627E-13 1.237079E+02   1.0276E-01   4.9407E+02   1.3353E-08   1.6306E-04

Step :  19

Elapsed Time    :     18.06 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5743E+04   4.2548E-07   4.2137E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time    :     18.99 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.6738E-13 1.237079E+02   1.0300E-01   4.9524E+02   1.3385E-08   1.6345E-04
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Step :  20

Elapsed Time   :     19.09 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0779E-09 1.237083E+02   3.1892E+03   1.5858E+04   4.2859E-07   4.3209E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     19.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.6666E-13 1.237079E+02   2.9064E-01   5.4872E+02   1.4830E-08   1.8285E-04

Step :  21

Elapsed Time   :     20.07 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0735E-09 1.237082E+02   3.1861E+03   1.5857E+04   4.2857E-07   4.2903E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     20.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.3612E-13 1.237079E+02   2.6148E-01   5.6496E+02   1.5269E-08   1.8789E-04

Step :  22

Elapsed Time   :     21.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0663E-09 1.237082E+02   3.1810E+03   1.5796E+04   4.2691E-07   4.2215E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     21.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.1230E-13 1.237079E+02   1.1290E-01   5.4284E+02   1.4671E-08   1.7916E-04

Step :  23

Elapsed Time   :     22.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0661E-09 1.237082E+02   3.1808E+03   1.5773E+04   4.2629E-07   4.2122E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     22.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9597E-13 1.237079E+02   1.0930E-01   5.2554E+02   1.4204E-08   1.7345E-04

Step :  24

Elapsed Time   :     23.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0572E-09 1.237081E+02   3.1746E+03   1.5665E+04   4.2337E-07   4.1167E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     23.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4871E-13 1.237079E+02   9.8887E-02   4.7545E+02   1.2850E-08   1.5692E-04

Step :  25

Elapsed Time   :     24.00 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0476E-09 1.237081E+02   3.1679E+03   1.5523E+04   4.1953E-07   4.0059E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     24.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.8003E-13 1.237079E+02   8.3752E-02   4.0268E+02   1.0883E-08   1.3290E-04

Step :  26

Elapsed Time   :     25.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0686E-09 1.237082E+02   3.1827E+03   1.5664E+04   4.2336E-07   4.1949E-03
         Production of  H  :       0. appm/y.
         Production of He  :       0. appm/y.

Elapsed Time   :     25.98 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.0523E-13 1.237079E+02   8.9305E-02   4.2938E+02   1.1605E-08   1.4171E-04

Step :  27

Elapsed Time   :     26.06 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
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otals:   8.5807E+22   6.0695E-09 1.237082E+02   3.1833E+03   1.5699E+04   4.2430E-07   4.2120E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     26.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.9840E-13 1.237079E+02   2.1478E-01   4.5445E+02   1.2282E-08   1.5118E-04

Step :  28

Elapsed Time   :     27.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0852E-09 1.237083E+02   3.1944E+03   1.5906E+04   4.2989E-07   4.3863E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     27.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   8.7223E-13 1.237079E+02   3.6003E-01   5.6065E+02   1.5153E-08   1.8745E-04

Step :  29

Elapsed Time   :     28.08 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0767E-09 1.237083E+02   3.1884E+03   1.5905E+04   4.2986E-07   4.3279E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     28.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   7.9222E-13 1.237079E+02   2.8940E-01   5.9070E+02   1.5965E-08   1.9661E-04

Step :  30

Elapsed Time   :     29.11 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0861E-09 1.237083E+02   3.1950E+03   1.6048E+04   4.3373E-07   4.4388E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     29.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   9.8976E-13 1.237079E+02   3.9220E-01   6.7162E+02   1.8152E-08   2.2417E-04

Step :  31

Elapsed Time   :     30.05 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0690E-09 1.237082E+02   3.1829E+03   1.5927E+04   4.3046E-07   4.2826E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     30.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0077E-13 1.237079E+02   1.3240E-01   6.3659E+02   1.7205E-08   2.1010E-04

Step :  32

Elapsed Time   :     31.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0610E-09 1.237082E+02   3.1772E+03   1.5812E+04   4.2734E-07   4.1902E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     31.98 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   5.4388E-13 1.237079E+02   1.1986E-01   5.7631E+02   1.5576E-08   1.9020E-04

Step :  33

Elapsed Time   :     32.03 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0598E-09 1.237081E+02   3.1764E+03   1.5741E+04   4.2542E-07   4.1590E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     32.97 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.9548E-13 1.237079E+02   1.0920E-01   5.2502E+02   1.4190E-08   1.7327E-04

Step :  34

Elapsed Time   :     33.02 (y)
            N/cm3       WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0581E-09 1.237081E+02   3.1753E+03   1.5674E+04   4.2362E-07   4.1262E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.
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Elapsed Time   :     33.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5195E-13 1.237079E+02   9.9603E-02   4.7889E+02   1.2943E-08   1.5805E-04

Step :  35

Elapsed Time   :     34.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5727E+04   4.2507E-07   4.2084E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     34.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5626E-13 1.237079E+02   1.0055E-01   4.8346E+02   1.3066E-08   1.5956E-04

Step :  36

Elapsed Time   :     35.05 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5732E+04   4.2519E-07   4.2103E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     35.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5961E-13 1.237079E+02   1.0129E-01   4.8700E+02   1.3162E-08   1.6073E-04

Step :  37

Elapsed Time   :     36.03 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0623E-09 1.237082E+02   3.1782E+03   1.5679E+04   4.2375E-07   4.1562E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     36.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.3997E-13 1.237079E+02   9.6961E-02   4.6619E+02   1.2600E-08   1.5386E-04

Step :  38

Elapsed Time   :     37.04 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0676E-09 1.237082E+02   3.1820E+03   1.5715E+04   4.2473E-07   4.2045E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     37.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.4696E-13 1.237079E+02   9.8502E-02   4.7360E+02   1.2800E-08   1.5630E-04

Step :  39

Elapsed Time   :     38.04 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0677E-09 1.237082E+02   3.1820E+03   1.5722E+04   4.2493E-07   4.2071E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     38.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   4.5238E-13 1.237079E+02   9.9698E-02   4.7935E+02   1.2955E-08   1.5820E-04

Step :  40

Elapsed Time   :     38.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0187E-09 1.237080E+02   3.1514E+03   1.5384E+04   4.1579E-07   3.8952E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     39.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   3.5474E-13 1.237079E+02   7.8177E-02   3.7588E+02   1.0159E-08   1.2405E-04

Step :  41

Elapsed Time   :     39.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   6.0312E-09 1.237080E+02   3.1580E+03   1.5314E+04   4.1390E-07   3.8705E-03
        Production of  H  :       0. appm/y.
        Production of He  :       0. appm/y.

Elapsed Time   :     40.97 (y)
            N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3
otals:   8.5807E+22   2.7963E-13 1.237079E+02   6.1625E-02   2.9629E+02   8.0079E-09   9.7788E-05
```

Step : 42

Elapsed Time : 40.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	5.7164E-09	1.237080E+02	2.9931E+03	1.4446E+04	3.9044E-07	3.6394E-03

Production of H : 0. appm/y.
Production of He : 0. appm/y.

Elapsed Time : 41.97 (y)

	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
otals:	8.5807E+22	2.1888E-13	1.237079E+02	4.8236E-02	2.3191E+02	6.2679E-09	7.6542E-05

Step : 43
AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 41.97 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
N 14	2.6484E+17								
N 15	9.7287E+14								
Na 23	1.4723E+16								
Al 27	3.2262E+17								
K 39	4.6135E+16								
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	1.280E+03(My)	K 40
K 41	3.3294E+15								
Ca 40	5.8480E+16								
Ca 42	3.9031E+14								
Ca 43	8.1440E+13								
Ca 44	1.2584E+15								
Ca 46	2.4130E+12								
Ca 48	1.1281E+14								
Ti 46	5.8301E+16								
Ti 47	5.2577E+16								
Ti 48	5.2096E+17								
Ti 49	3.8231E+16								
Ti 50	3.6606E+16								
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	1.489E+11(My)	V 50
V 51	1.9029E+17								
Cr 50	5.2922E+18								
Cr 52	1.0206E+20								
Cr 53	1.1571E+19								
Cr 54	2.8806E+18								
Cr 55	2.4728E+02	1.4229E-13	4.3606E-11	4.2634E-04	8.0689E-01	2.1808E-11	1.1301E-09	3.540E+00 (m)	Cr 55
Mn 55	8.2737E+20								
Mn 56	1.1401E+08	3.4424E-09	4.6107E-05	1.8027E+03	8.5119E+03	2.3005E-07	2.1280E-03	2.579E+00 (h)	Mn 56
Fe 54	4.9638E+21								
Fe 55	2.8963E+10	2.1950E-13	2.7332E-05	4.8377E-02	2.3260E+02	6.2865E-09	7.6766E-05	2.735E+00 (y)	Fe 55
Fe 56	7.7852E+22								
Fe 57	1.7989E+21								
Fe 58	2.3759E+20								
Fe 59	4.9210E+06	1.8579E-13	1.0305E-06	1.3140E-01	8.8727E-01	2.3980E-11	1.5958E-06	4.450E+01 (d)	Fe 59
Co 59	8.4506E+16								
Co 60m1	3.6604E+03	4.1217E-14	3.7368E-11	3.4834E-03	4.0374E+00	1.0912E-10	6.8663E-09	1.047E+01 (m)	Co 60m1
Ni 58	5.9997E+17								
Ni 60	2.3111E+17								
Ni 61	1.0047E+16								
Ni 62	3.2027E+16								
Ni 64	8.1610E+15								
Cu 63	1.5687E+18								
Cu 64	1.2941E+05	9.9399E-14	6.5575E-09	4.6550E-02	1.9615E+00	5.3015E-11	2.3548E-07	1.270E+01 (h)	Cu 64
Cu 65	6.9920E+17								
Cu 66	1.0492E+03	4.3878E-13	1.9372E-10	2.4227E-02	2.3765E+00	6.4231E-11	3.8025E-08	5.100E+00 (m)	Cu 66
Zn 64	2.4084E+16								
Zn 66	1.3826E+16								
Zn 67	2.0318E+15								
Zn 68	9.3164E+15								
Zn 70	2.9733E+14								

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
As 75	8.3263E+16								
Br 79	3.0672E+14								
Br 81	2.9837E+14								
Rb 85	8.1655E+15								
Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	4.796E+04(My)	Rb 87
Mo 92	1.6304E+16								
Mo 94	1.0163E+16								
Mo 95	1.7491E+16								
Mo 96	1.8326E+16								
Mo 97	1.0492E+16								
Mo 98	2.6511E+16								
Mo100	1.0580E+16								
Ag107	9.2947E+14								
Ag109	8.6352E+14								
Ag110	4.7978E+01	2.6088E-13	9.2972E-12	5.8299E-03	1.3463E+00	3.6385E-11	8.8569E-10	2.470E+01 (s)	Ag110
Sb121	1.0679E+16								
Sb123	7.9872E+15								
Ba130	1.4927E+14								
Ba132	1.4223E+14								
Ba134	3.4036E+15								

Ba135	9.2828E+15
Ba136	1.1060E+16
Ba137	1.5817E+16
Ba138	1.0096E+17
W180	4.7342E+12
W182	1.0455E+15
W183	5.6455E+14
W184	1.2088E+15
W186	1.1216E+15

here are 78 Nuclides.

Totals: 8.5807E+22 3.4438E-09 1.237079E+02 1.8030E+03 8.7559E+03 2.3665E-07 2.2066E-03

AJBRF Reactor

AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Elapsed Time : 41.97 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.72205E+07
He	5.91854E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.79759E-02
C	2.44377E+07
N	2.65812E+17
O	1.12007E-05
Na	1.47231E+16
Mg	6.79073E+05
Al	3.22619E+17
Si	4.98279E+06
S	3.24837E-02
Cl	3.14869E+04
Ar	1.90323E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	6.13177E+04
Ti	7.06679E+17
V	1.90771E+17
Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.91101E+06
Ge	1.22650E+02
As	8.32629E+16
Se	5.36028E+08
Br	6.05099E+14
Kr	5.80356E+06
Rb	1.13142E+16
Sr	7.93835E+06
Y	1.00751E+01
Zr	4.46917E+03
Nb	1.39227E+04
Mo	1.09868E+17
Tc	2.13183E+07
Ru	5.19030E+06
Pd	3.17268E+05
Ag	1.79299E+15
Cd	1.38866E+08
In	5.01239E-06
Sn	5.38013E+06
Sb	1.86661E+16
Te	3.26203E+08
I	4.59393E-03
Xe	2.72789E+06
Cs	6.09548E+05
Ba	1.40818E+17
La	2.19062E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.70205E-02
Ta	1.23242E+05
W	3.94515E+15
Re	1.24721E+07

Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	4.0265E-01	7.3209E+00
2	(0.1 -> 0.2 MeV)	6.6053E-03	4.2615E-02
3	(0.2 -> 0.4 MeV)	9.4363E-04	3.1454E-03
4	(0.4 -> 0.6 MeV)	3.5844E-01	7.1688E-01
5	(0.6 -> 0.8 MeV)	3.9762E-02	5.6802E-02
6	(0.8 -> 1.0 MeV)	7.1260E+03	7.9178E+03
7	(1.0 ->1.22 MeV)	4.4918E+00	4.0467E+00
8	(1.22 ->1.44 MeV)	1.3026E+01	9.7941E+00
9	(1.44 ->1.66 MeV)	1.3286E-03	8.5717E-04
10	(1.66 -> 2.0 MeV)	4.2365E+03	2.3150E+03
11	(2.0 -> 2.5 MeV)	2.5786E+03	1.1460E+03
12	(2.5 -> 3.0 MeV)	4.5244E+02	1.6452E+02
13	(3.0 -> 4.0 MeV)	4.5374E+01	1.2964E+01
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	1.2964E+01	1.6452E+02
1.1460E+03	2.3150E+03	9.7949E+00	4.0467E+00	7.9178E+03	5.6802E-02
7.1688E-01	1.5727E-03	1.5727E-03	4.2615E-02	3.6604E+00	3.6604E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 364.87 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
N 14	2.6484E+17							
N 15	9.7287E+14							
Na 23	1.4723E+16							
Al 27	3.2262E+17							
K 39	4.6135E+16							
K 40	5.7880E+12	1.0803E-17	6.2955E-01	1.9444E-06	9.9322E-05	2.6844E-15	6.1691E-10	K 40
K 41	3.3294E+15							
Ca 40	5.8480E+16							
Ca 42	3.9031E+14							
Ca 43	8.1440E+13							
Ca 44	1.2584E+15							
Ca 46	2.4130E+12							
Ca 48	1.1281E+14							
Ti 46	5.8301E+16							
Ti 47	5.2577E+16							
Ti 48	5.2096E+17							
Ti 49	3.8231E+16							
Ti 50	3.6606E+16							
V 50	4.7693E+14	1.2289E-23	8.3329E+01	9.5324E-12	7.0337E-11	1.9010E-21	3.4479E-16	V 50
V 51	1.9029E+17							
Cr 50	5.2922E+18							
Cr 52	1.0206E+20							
Cr 53	1.1571E+19							
Cr 54	2.8806E+18							
Mn 55	8.2737E+20							
Fe 54	4.9638E+21							
Fe 55	2.2485E+10	1.7041E-13	2.1219E-05	3.7556E-02	1.8058E+02	4.8804E-09	5.9596E-05	Fe 55
Fe 56	7.7852E+22							
Fe 57	1.7989E+21							
Fe 58	2.3759E+20							
Co 59	8.4506E+16							
Ni 58	5.9997E+17							
Ni 60	2.3111E+17							
Ni 61	1.0047E+16							
Ni 62	3.2027E+16							
Ni 64	8.1610E+15							
Cu 63	1.5687E+18							
Cu 65	6.9920E+17							
Zn 64	2.4084E+16							
Zn 66	1.3826E+16							
Zn 67	2.0318E+15							
Zn 68	9.3164E+15							
Zn 70	2.9733E+14							
As 75	8.3263E+16							
Br 79	3.0672E+14							
Br 81	2.9837E+14							
Rb 85	8.1655E+15							

Rb 87	3.1488E+15	1.8202E-17	3.9749E+01	0.0000E+00	1.4419E-03	3.8970E-14	2.1617E-09	Rb 87
Mo 92	1.6304E+16							
Mo 94	1.0163E+16							

AJBRF Reactor

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
Mo 95	1.7491E+16						
Mo 96	1.8326E+16						
Mo 97	1.0492E+16						
Mo 98	2.6511E+16						
Mo100	1.0580E+16						
Ag107	9.2947E+14						
Ag109	8.6352E+14						
Sb121	1.0679E+16						
Sb123	7.9872E+15						
Ba130	1.4927E+14						
Ba132	1.4223E+14						
Ba134	3.4036E+15						
Ba135	9.2828E+15						
Ba136	1.1060E+16						
Ba137	1.5817E+16						
Ba138	1.0096E+17						
W180	4.7342E+12						
W182	1.0455E+15						
W183	5.6455E+14						
W184	1.2088E+15						
W186	1.1216E+15						
364.9 (d)		1.7044E-13	1.237079E+02	3.7558E-02	1.8058E+02	4.8805E-09	5.9599E-05

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 364.87 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	3.0012E-01	5.4567E+00
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	1.0151E-09	2.0301E-09
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	1.5525E-05	1.0016E-05
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.0016E-05	0.0000E+00	0.0000E+00	0.0000E+00
2.0301E-09	0.0000E+00	0.0000E+00	0.0000E+00	2.7283E+00	2.7283E+00

AJBRF Reactor
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

At Cooling Time : 364.87 (d)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	2.72205E+07
He	5.91854E+04
Li	0.00000E+00
Be	0.00000E+00
B	2.79759E-02
C	2.44348E+07
N	2.65812E+17
O	1.13324E-05
Na	1.47231E+16
Mg	6.79153E+05
Al	3.22619E+17
Si	4.98280E+06
S	3.35179E-02
Cl	3.14878E+04
Ar	1.89851E+04
K	4.94701E+16
Ca	6.03257E+16
Sc	6.13337E+04
Ti	7.06679E+17
V	1.90771E+17

Cr	1.21799E+20
Mn	8.27369E+20
Fe	8.48521E+22
Co	8.45059E+16
Ni	8.81316E+17
Cu	2.26793E+18
Zn	4.95553E+16
Ga	2.91117E+06
Ge	1.22643E+02
As	8.32629E+16
Se	5.36093E+08
Br	6.05099E+14
Kr	5.80391E+06
Rb	1.13142E+16
Sr	7.93926E+06
Y	1.00763E+01
Zr	4.46936E+03
Nb	1.45224E+04
Mo	1.09868E+17
Tc	2.13208E+07
Ru	5.19052E+06
Pd	3.17416E+05
Ag	1.79299E+15
Cd	1.38871E+08
In	0.00000E+00
Sn	5.38080E+06
Sb	1.86661E+16
Te	3.26243E+08
I	4.59450E-03
Xe	2.72823E+06
Cs	6.25075E+05
Ba	1.40818E+17
La	2.19076E+06
Ce	0.00000E+00
Pr	0.00000E+00
Nd	0.00000E+00
Pm	0.00000E+00
Sm	0.00000E+00
Eu	0.00000E+00
Gd	0.00000E+00
Tb	0.00000E+00
Dy	0.00000E+00
Ho	0.00000E+00
Er	0.00000E+00
Tm	0.00000E+00
Yb	0.00000E+00
Lu	0.00000E+00
Hf	8.70205E-02
Ta	1.23264E+05
W	3.94515E+15
Re	1.24736E+07
Th	0.00000E+00
U	0.00000E+00
Np	0.00000E+00
Pu	0.00000E+00
Totals:	8.58066E+22

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	4.507E-04	1.090E+03	8.756E+03	2.366E-01	2.207E-03	3.444E-09	1.237079E+02
364.9 (d)	9.390E-09	2.249E+01	1.806E+02	4.880E-03	5.960E-05	1.704E-13	1.237079E+02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

For a volume of 1.0000E+00(cm3) of Rebar :

Time	Becquerel	Sv/h	ALI	Watt
zero	8.756E+03	4.507E-04	2.207E-03	3.444E-09
364.9 (d)	1.806E+02	9.390E-09	5.960E-05	1.704E-13

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.090E+06	4.289E-10	2.947E-05	1.803E+03
364.9 (d)	2.249E+04	2.122E-14	6.078E-07	3.756E-02

AJBRF Reactor — AJBRF Soil (Side) Flux
AJBRF Omaha Veterans Affairs Hospital Reactor Facility Activation

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.090E+03	4.507E-04	4.289E-10	1.890E+03
364.9 (d)	2.249E+01	9.390E-09	2.122E-14	7.496E-02

The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000

we hope that all was O.K.!

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ANITA-2000 INPUT FILE

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1061inv
1061clr
    9    4NYAJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.
 2.70      1.0000-12  1.0          AL-6061
Si  0.60
Mn  0.15
Cu  0.27
Mg  1.0
Ti  0.15
Zn  0.25
Cr  0.20
Fe  0.70
Al 96.68
         1          4
9.32074+070.0
1.00000+001.00000+031.00000+061.00000+09
0
    -1
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ANITA-2000 INPUT FILE

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*************************************************
* Authors:                                      *
* Dan Gabriel Cepraga - ENEA Bologna Italy      *
* Gilio Cambi         - Bologna University Italy *
```

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* Manuela Frisoni      - ATHENA S.a.S. Bologna Italy *
* Gian Carlo Panini    - ENEA Bologna Italy          *
* (ANITA-2000 is based on the ANITA code by C. Ponti*
*  and S.Stramaccia     - CEC JRC Ispra,1989)        *
*****************************************************

The Library    *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000
contains 1840  Nuclides.

Gamma Data were supplied for 1390 Nuclides.
     AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

The Library Activation library
contains12392  Reactions.
         at  175 Groups.

Set of Fluxes   4 : AJBRF Specimen Flux (Initial)

Fluxes
0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00
0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00
0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00
0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00
0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00
0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00
0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00
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0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00
0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00  0.00000E+00
0.00000E+00  0.00000E+00  0.00000E+00  1.43470E+09  1.43470E+09  1.43470E+09
1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09
1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09
1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09
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1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09
1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09
1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09
1.43470E+09  1.43470E+09  1.43470E+09  1.43470E+09  6.08530E+08  6.08530E+08
6.08530E+08  6.08530E+08  6.08530E+08  6.08530E+08  6.08530E+08  6.08530E+08
6.08530E+08

Total Flux at  175 Groups :   1.36034E+11 !

DENSITY    2.700(g/cm3)

ELEM.      Weight %      AT.WEIGHT  ISO    Rel.Abb.     N/cm3

  Si         0.6000        28.0900                    3.47302E+20
                                   Si 28    0.92210     3.20247E+20
                                   Si 29    0.04690     1.62885E+19
                                   Si 30    0.03100     1.07664E+19
  Mn         0.1500        54.9400                    4.43926E+19
                                   Mn 55    1.00000     4.43926E+19
  Cu         0.2700        63.5400                    6.90915E+19
                                   Cu 63    0.69170     4.77906E+19
                                   Cu 65    0.30830     2.13009E+19
  Mg         1.0000        24.3200                    6.68566E+20
                                   Mg 24    0.78990     5.28101E+20
                                   Mg 25    0.10000     6.68566E+19
                                   Mg 26    0.11010     7.36092E+19
  Ti         0.1500        47.9000                    5.09171E+19
                                   Ti 46    0.08250     4.20066E+18
                                   Ti 47    0.07440     3.78823E+18
                                   Ti 48    0.73720     3.75361E+19
                                   Ti 49    0.05410     2.75462E+18
                                   Ti 50    0.05180     2.63751E+18
  Zn         0.2500        65.3800                    6.21732E+19
                                   Zn 64    0.48600     3.02162E+19
                                   Zn 66    0.27900     1.73463E+19
                                   Zn 67    0.04100     2.54910E+18
                                   Zn 68    0.18800     1.16886E+19
                                   Zn 70    0.00600     3.73039E+17
  Cr         0.2000        52.0100                    6.25247E+19
                                   Cr 50    0.04345     2.71670E+18
                                   Cr 52    0.83790     5.23894E+19
                                   Cr 53    0.09500     5.93984E+18
                                   Cr 54    0.02365     1.47871E+18
  Fe         0.7000        55.8500                    2.03790E+20
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                                    Fe 54   0.05850    1.19217E+19
                                    Fe 56   0.91750    1.86977E+20
                                    Fe 57   0.02120    4.32035E+18
                                    Fe 58   0.00280    5.70612E+17
  Al        96.6800          26.9800                  5.82643E+22
                                    Al 27   1.00000    5.82643E+22
          100.0000
     AJBRF probid 02/17/03 12:00:00
     AJBRF at the Omaha Veterans Affairs Hospital.

 Isotope        N/cm3

   Mg 24       5.28101E+20
   Mg 25       6.68566E+19
   Mg 26       7.36092E+19
   Al 27       5.82643E+22
   Si 28       3.20247E+20
   Si 29       1.62885E+19
   Si 30       1.07664E+19
   Ti 46       4.20066E+18
   Ti 47       3.78823E+18
   Ti 48       3.75361E+19
   Ti 49       2.75462E+18
   Ti 50       2.63751E+18
   Cr 50       2.71670E+18
   Cr 52       5.23894E+19
   Cr 53       5.93984E+18
   Cr 54       1.47871E+18
   Mn 55       4.43926E+19
   Fe 54       1.19217E+19
   Fe 56       1.86977E+20
   Fe 57       4.32035E+18
   Fe 58       5.70612E+17
   Cu 63       4.77906E+19
   Cu 65       2.13009E+19
   Zn 64       3.02162E+19
   Zn 66       1.73463E+19
   Zn 67       2.54910E+18
   Zn 68       1.16886E+19
   Zn 70       3.73039E+17

 In Total  :  5.97731E+22              Min. acceptable Conc.  : 5.97731E+10 N/cm3.


                                                                    Elapsed Time.

       Step    1 : Activation of  9.32074E+07(s), i.e.       2.95 (y)       2.95 (y)        Intervals : 10

 Cooling Times (s)  :

    1.0000E+00   1.0000E+03   1.0000E+06   1.0000E+09

       1.0 (s)      16.7 (m)      11.6 (d)      31.7 (y)
     AJBRF probid 02/17/03 12:00:00
 AJBRF at the Omaha Veterans Affairs Hospital.

 Elapsed Time  :       2.95 (y)          Cooling Time 0.

 Nuclide      N/cm3        WATT/cm3     JOULE/cm3   G(MeV/g*s)    Bq/cm3       Ci/cm3       ALI/cm3          T/2

  H  1      7.5053E+10
 Mg 24      5.2810E+20
 Mg 25      6.6857E+19
 Mg 26      7.3609E+19
 Mg 27      7.9174E+06   2.4670E-09   2.0205E-06   3.1902E+03   9.6672E+03   2.6127E-07   1.8379E-04   9.461E+00 (m)   Mg 27
 Al 27      5.8264E+22
 Al 28      9.9394E+09   2.4793E-05   4.8094E-03   3.3833E+07   5.1238E+07   1.3848E-03   2.5117E-01   2.241E+00 (m)   Al 28
 Si 28      3.2025E+20
 Si 29      1.6288E+19
 Si 30      1.0766E+19
 Si 31      1.3030E+09   9.1353E-09   1.2439E-04   3.1898E+01   9.5695E+04   2.5863E-06   1.5311E-02   2.622E+00 (h)   Si 31
  P 31      8.9182E+12
 Ti 46      4.2007E+18
 Ti 47      3.7882E+18
 Ti 48      3.7536E+19
 Ti 49      2.7547E+18
 Ti 50      2.6375E+18
 Ti 51      7.5225E+05   2.9611E-10   1.4865E-07   2.0233E+02   1.4985E+03   4.0500E-08   2.2466E-05   5.799E+00 (m)   Ti 51
  V 51      1.1576E+13
 Cr 50      2.7167E+18
 Cr 51      4.3997E+11   7.4723E-10   2.5802E-03   1.5457E+03   1.2742E+05   3.4437E-06   4.8447E-03   2.770E+01 (d)   Cr 51
 Cr 52      5.2389E+19
 Cr 53      5.9398E+18
 Cr 54      1.4787E+18
 Cr 55      6.5378E+05   3.7619E-10   1.1529E-07   3.3523E+00   2.1333E+03   5.7656E-08   2.9878E-06   3.540E+00 (m)   Cr 55
 Mn 55      4.4392E+19
 Mn 56      5.5215E+10   1.6672E-06   2.2330E-02   2.5966E+06   4.1224E+06   1.1142E-04   1.0306E+00   2.579E+00 (h)   Mn 56
 Fe 54      1.1922E+19
 Fe 55      6.3293E+12   4.7968E-11   5.9729E-03   3.1441E+01   5.0830E+04   1.3738E-06   1.6776E-02   2.735E+00 (y)   Fe 55
 Fe 56      1.8698E+20
 Fe 57      4.3205E+18
 Fe 58      5.7062E+17
```

Fe 59	2.9497E+10	1.1137E-09	6.1767E-03	2.3425E+03	5.3183E+03	1.4374E-07	9.5654E-03	4.450E+01 (d)	Fe 59
Co 59	4.6620E+11								
Ni 63	7.5757E+10	4.6155E-14	2.0800E-04	0.0000E+00	1.6810E+01	4.5433E-10	2.5203E-06	9.898E+01 (y)	Ni 63
Ni 64	1.1114E+14								
Ni 65	8.1083E+03	1.1707E-13	1.5323E-09	1.2617E-01	6.1947E-01	1.6743E-11	1.1142E-07	2.520E+00 (h)	Ni 65
Cu 63	4.7790E+19								
Cu 64	1.2875E+11	9.8893E-08	6.5242E-03	1.3774E+05	1.9516E+06	5.2745E-05	2.3428E-01	1.270E+01 (h)	Cu 64
Cu 65	2.1301E+19								
Cu 66	1.6462E+08	6.8844E-08	3.0395E-05	1.1305E+04	3.7288E+05	1.0078E-05	5.9660E-03	5.100E+00 (m)	Cu 66
Cu 67	4.1263E+05	5.5773E-14	1.7916E-08	5.4902E-02	1.2845E+00	3.4717E-11	4.3692E-07	2.577E+00 (d)	Cu 67
Zn 64	3.0216E+19								
Zn 65	1.4781E+13	4.5842E-08	1.3959E+00	1.0473E+05	4.8541E+05	1.3119E-05	1.8961E+00	2.443E+02 (d)	Zn 65
Zn 66	1.7346E+19								
Zn 67	2.5491E+18								
Zn 68	1.1689E+19								
Zn 69	1.0242E+09	1.0676E-08	5.2669E-05	4.6903E-01	2.0760E+05	5.6109E-06	6.4273E-03	5.699E+01 (m)	Zn 69
Zn 69m1	9.9795E+08	9.8123E-10	7.0138E-05	2.1541E+03	1.3961E+04	3.7733E-07	4.6077E-03	1.376E+01 (h)	Zn 69m1

AJBRF probid 02/17/03 12:00:00

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
Zn 70	3.7304E+17								
Zn 71	8.1506E+04	8.3780E-11	1.7769E-08	4.4839E+01	3.8430E+02	1.0387E-08	2.8467E-06	2.450E+00 (m)	Zn 71
Zn 71m1	8.2491E+05	1.3638E-11	2.7908E-07	2.3504E+01	4.0314E+01	1.0896E-09	9.6675E-06	3.940E+00 (h)	Zn 71m1
Ga 69	1.9348E+13								
Ga 70	3.1872E+03	1.8174E-13	3.3254E-10	4.7093E-03	1.7418E+00	4.7076E-11	5.3926E-08	2.114E+01 (m)	Ga 70

here are 54 Nuclides.

Totals: 5.9773E+22 2.6699E-05 1.444791E+00 3.6693E+07 5.8685E+07 1.5861E-03 3.4759E+00

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 2.95 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	7.50529E+10
He	2.05452E+09
Mg	6.68566E+20
Al	5.82643E+22
Si	3.47307E+20
P	8.91816E+12
S	2.06287E+05
Ca	8.22275E+07
Ti	5.09171E+19
V	1.15758E+13
Cr	6.25247E+19
Mn	4.43922E+19
Fe	2.03790E+20
Co	4.66210E+11
Ni	1.11217E+14
Cu	6.90913E+19
Zn	6.21732E+19
Ga	1.93875E+13
Ge	8.11634E+07

Production of H : 0. appm/y.

Production of He : 0. appm/y.
AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	4.1162E+03	7.4841E+04
2	(0.1 -> 0.2 MeV)	5.4755E+01	3.5326E+02
3	(0.2 -> 0.4 MeV)	4.5057E+03	1.5019E+04
4	(0.4 -> 0.6 MeV)	3.6967E+05	7.3933E+05
5	(0.6 -> 0.8 MeV)	4.2862E+01	6.1231E+01
6	(0.8 -> 1.0 MeV)	3.4577E+06	3.8419E+06
7	(1.0 ->1.22 MeV)	3.1057E+05	2.7979E+05
8	(1.22 ->1.44 MeV)	2.1697E+04	1.6313E+04
9	(1.44 ->1.66 MeV)	8.8633E+00	5.7182E+00
10	(1.66 -> 2.0 MeV)	9.3188E+07	5.0923E+07
11	(2.0 -> 2.5 MeV)	1.2488E+06	5.5504E+05
12	(2.5 -> 3.0 MeV)	2.1912E+05	7.9681E+04
13	(3.0 -> 4.0 MeV)	2.1975E+04	6.2786E+03
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	6.2786E+03	7.9681E+04
5.5504E+05	5.0923E+07	1.6319E+04	2.7979E+05	3.8419E+06	6.1231E+01
7.3933E+05	7.5095E+03	7.5095E+03	3.5326E+02	3.7420E+04	3.7420E+04

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 1.00 (s)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
H 1	7.5053E+10							
Mg 24	5.2810E+20							
Mg 25	6.6857E+19							
Mg 26	7.3609E+19							
Mg 27	7.9078E+06	2.4640E-09	2.0180E-06	3.1863E+03	9.6554E+03	2.6096E-07	1.8356E-04	Mg 27
Al 27	5.8264E+22							
Al 28	9.8883E+09	2.4665E-05	4.7847E-03	3.3659E+07	5.0974E+07	1.3777E-03	2.4987E-01	Al 28
Si 28	3.2025E+20							
Si 29	1.6288E+19							
Si 30	1.0766E+19							
Si 31	1.3029E+09	9.1347E-09	1.2438E-04	3.1896E+01	9.5688E+04	2.5862E-06	1.5310E-02	Si 31
P 31	8.9182E+12							
Ti 46	4.2007E+18							
Ti 47	3.7882E+18							
Ti 48	3.7536E+19							
Ti 49	2.7547E+18							
Ti 50	2.6375E+18							
Ti 51	7.5076E+05	2.9552E-10	1.4835E-07	2.0192E+02	1.4955E+03	4.0419E-08	2.2421E-05	Ti 51
V 51	1.1576E+13							
Cr 50	2.7167E+18							
Cr 51	4.3997E+11	7.4723E-10	2.5802E-03	1.5457E+03	1.2742E+05	3.4437E-06	4.8447E-03	Cr 51
Cr 52	5.2389E+19							
Cr 53	5.9398E+18							
Cr 54	1.4787E+18							
Cr 55	6.5165E+05	3.7496E-10	1.1491E-07	3.3413E+00	2.1263E+03	5.7469E-08	2.9781E-06	Cr 55
Mn 55	4.4392E+19							
Mn 56	5.5211E+10	1.6670E-06	2.2329E-02	2.5964E+06	4.1221E+06	1.1141E-04	1.0305E+00	Mn 56
Fe 54	1.1922E+19							
Fe 55	6.3293E+12	4.7968E-11	5.9729E-03	3.1441E+01	5.0830E+04	1.3738E-06	1.6776E-02	Fe 55
Fe 56	1.8698E+20							
Fe 57	4.3205E+18							
Fe 58	5.7062E+17							
Fe 59	2.9497E+10	1.1137E-09	6.1767E-03	2.3425E+03	5.3183E+03	1.4374E-07	9.5654E-03	Fe 59
Co 59	4.6620E+11							
Ni 63	7.5757E+10	4.6155E-14	2.0800E-04	0.0000E+00	1.6810E+01	4.5433E-10	2.5203E-06	Ni 63
Ni 64	1.1114E+14							
Ni 65	8.1077E+03	1.1706E-13	1.5322E-09	1.2616E-01	6.1943E-01	1.6741E-11	1.1141E-07	Ni 65
Cu 63	4.7790E+19							
Cu 64	1.2875E+11	9.8892E-08	6.5241E-03	1.3774E+05	1.9515E+06	5.2745E-05	2.3428E-01	Cu 64
Cu 65	2.1301E+19							
Cu 66	1.6425E+08	6.8688E-08	3.0326E-05	1.1279E+04	3.7203E+05	1.0055E-05	5.9525E-03	Cu 66
Cu 67	4.1263E+05	5.5773E-14	1.7916E-08	5.4902E-02	1.2845E+00	3.4717E-11	4.3691E-07	Cu 67
Zn 64	3.0216E+19							
Zn 65	1.4781E+13	4.5842E-08	1.3959E+00	1.0473E+05	4.8541E+05	1.3119E-05	1.8961E+00	Zn 65
Zn 66	1.7346E+19							
Zn 67	2.5491E+18							
Zn 68	1.1689E+19							
Zn 69	1.0240E+09	1.0674E-08	5.2659E-05	4.6894E-01	2.0756E+05	5.6098E-06	6.4261E-03	Zn 69
Zn 69m1	9.9793E+08	9.8121E-10	7.0137E-05	2.1541E+03	1.3961E+04	3.7733E-07	4.6076E-03	Zn 69m1
Zn 70	3.7304E+17							

AJBRF probid 02/17/03 12:00:00

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Zn 71	8.1123E+04	8.3385E-11	1.7685E-08	4.4628E+01	3.8249E+02	1.0338E-08	2.8333E-06	Zn 71
Zn 71m1	8.2487E+05	1.3638E-11	2.7906E-07	2.3503E+01	4.0312E+01	1.0895E-09	9.6670E-06	Zn 71m1
Ga 69	1.9348E+13							
Ga 70	3.1854E+03	1.8164E-13	3.3236E-10	4.7067E-03	1.7408E+00	4.7050E-11	5.3896E-08	Ga 70
1.0 (s)		2.6572E-05	1.444764E+00	3.6519E+07	5.8420E+07	1.5789E-03	3.4745E+00	

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 1.00 (s)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	4.1162E+03	7.4840E+04
2	(0.1 -> 0.2 MeV)	5.4733E+01	3.5311E+02
3	(0.2 -> 0.4 MeV)	4.5048E+03	1.5016E+04
4	(0.4 -> 0.6 MeV)	3.6966E+05	7.3932E+05
5	(0.6 -> 0.8 MeV)	4.2819E+01	6.1171E+01
6	(0.8 -> 1.0 MeV)	3.4574E+06	3.8416E+06
7	(1.0 ->1.22 MeV)	3.1050E+05	2.7973E+05
8	(1.22 ->1.44 MeV)	2.1696E+04	1.6313E+04
9	(1.44 ->1.66 MeV)	8.8473E+00	5.7079E+00
10	(1.66 -> 2.0 MeV)	9.2719E+07	5.0666E+07
11	(2.0 -> 2.5 MeV)	1.2487E+06	5.5499E+05
12	(2.5 -> 3.0 MeV)	2.1911E+05	7.9675E+04
13	(3.0 -> 4.0 MeV)	2.1973E+04	6.2781E+03
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	6.2781E+03	7.9675E+04
5.5499E+05	5.0666E+07	1.6319E+04	2.7973E+05	3.8416E+06	6.1171E+01
7.3932E+05	7.5079E+03	7.5079E+03	3.5311E+02	3.7420E+04	3.7420E+04

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.67 (m)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
H 1	7.5053E+10							
Mg 24	5.2810E+20							
Mg 25	6.6857E+19							
Mg 26	7.3609E+19							
Mg 27	2.3351E+06	7.2762E-10	5.9592E-07	9.4089E+02	2.8512E+03	7.7059E-08	5.4205E-05	Mg 27
Al 27	5.8264E+22							
Al 28	5.7355E+07	1.4307E-07	2.7753E-05	1.9523E+05	2.9567E+05	7.9910E-06	1.4493E-03	Al 28
Si 28	3.2025E+20							
Si 29	1.6288E+19							
Si 30	1.0766E+19							
Si 31	1.2108E+09	8.4885E-09	1.1558E-04	2.9640E+01	8.8919E+04	2.4032E-06	1.4227E-02	Si 31
P 31	8.9183E+12							
Ti 46	4.2007E+18							
Ti 47	3.7882E+18							
Ti 48	3.7536E+19							
Ti 49	2.7547E+18							
Ti 50	2.6375E+18							
Ti 51	1.0262E+05	4.0396E-11	2.0279E-08	2.7602E+01	2.0443E+02	5.5251E-09	3.0649E-06	Ti 51
V 51	1.1576E+13							
Cr 50	2.7167E+18							
Cr 51	4.3984E+11	7.4701E-10	2.5795E-03	1.5452E+03	1.2738E+05	3.4427E-06	4.8433E-03	Cr 51
Cr 52	5.2389E+19							
Cr 53	5.9398E+18							
Cr 54	1.4787E+18							
Cr 55	2.5022E+04	1.4398E-11	4.4125E-09	1.2830E-01	8.1648E+01	2.2067E-09	1.1435E-07	Cr 55
Mn 55	4.4392E+19							
Mn 56	5.1243E+10	1.5472E-06	2.0724E-02	2.4098E+06	3.8258E+06	1.0340E-04	9.5645E-01	Mn 56
Fe 54	1.1922E+19							
Fe 55	6.3292E+12	4.7968E-11	5.9728E-03	3.1441E+01	5.0830E+04	1.3738E-06	1.6776E-02	Fe 55
Fe 56	1.8698E+20							
Fe 57	4.3205E+18							
Fe 58	5.7062E+17							
Fe 59	2.9492E+10	1.1135E-09	6.1755E-03	2.3420E+03	5.3174E+03	1.4371E-07	9.5636E-03	Fe 59
Co 59	4.6621E+11							
Ni 63	7.5757E+10	4.6155E-14	2.0800E-04	0.0000E+00	1.6810E+01	4.5433E-10	2.5203E-06	Ni 63
Ni 64	1.1114E+14							
Ni 65	7.5119E+03	1.0846E-13	1.4196E-09	1.1689E-01	5.7391E-01	1.5511E-11	1.0322E-07	Ni 65
Cu 63	4.7790E+19							
Cu 64	1.2681E+11	9.7406E-08	6.4260E-03	1.3567E+05	1.9222E+06	5.1952E-05	2.3076E-01	Cu 64
Cu 65	2.1301E+19							
Cu 66	1.7093E+07	7.1481E-09	3.1559E-06	1.1738E+03	3.8716E+04	1.0464E-06	6.1945E-04	Cu 66
Cu 67	4.1135E+05	5.5600E-14	1.7861E-08	5.4731E-02	1.2805E+00	3.4609E-11	4.3556E-07	Cu 67
Zn 64	3.0216E+19							
Zn 65	1.4781E+13	4.5840E-08	1.3959E+00	1.0472E+05	4.8540E+05	1.3119E-05	1.8961E+00	Zn 65
Zn 66	1.7346E+19							
Zn 67	2.5491E+18							
Zn 68	1.1689E+19							
Zn 69	8.4882E+08	8.8480E-09	4.3650E-05	3.8872E-01	1.7205E+05	4.6501E-06	5.3268E-03	Zn 69
Zn 69m1	9.8408E+08	9.6760E-10	6.9163E-05	2.1242E+03	1.3767E+04	3.7209E-07	4.5437E-03	Zn 69m1
Zn 70	3.7304E+17							

AJBRF probid 02/17/03 12:00:00

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
Zn 71	7.3028E+02	7.5065E-13	1.5921E-10	4.0176E-01	3.4433E+00	9.3062E-11	2.5506E-08	Zn 71
Zn 71m1	7.8557E+05	1.2988E-11	2.6577E-07	2.2383E+01	3.8391E+01	1.0376E-09	9.2064E-06	Zn 71m1
Ga 69	1.9348E+13							
Ga 70	1.8453E+03	1.0522E-13	1.9253E-10	2.7266E-03	1.0085E+00	2.7255E-11	3.1221E-08	Ga 70
16.7 (m)		1.8617E-06	1.438209E+00	2.8536E+06	7.0293E+06	1.8998E-04	3.1407E+00	

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.67 (m)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	4.0808E+03	7.4196E+04
2	(0.1 -> 0.2 MeV)	4.4036E+01	2.8411E+02
3	(0.2 -> 0.4 MeV)	4.1069E+03	1.3690E+04
4	(0.4 -> 0.6 MeV)	3.6416E+05	7.2831E+05
5	(0.6 -> 0.8 MeV)	2.7952E+01	3.9931E+01
6	(0.8 -> 1.0 MeV)	3.2047E+06	3.5608E+06
7	(1.0 ->1.22 MeV)	2.8278E+05	2.5476E+05
8	(1.22 ->1.44 MeV)	2.1053E+04	1.5829E+04

9 (1.44 ->1.66 MeV)	5.1263E+00	3.3073E+00
10 (1.66 -> 2.0 MeV)	2.4301E+06	1.3279E+06
11 (2.0 -> 2.5 MeV)	1.1590E+06	5.1511E+05
12 (2.5 -> 3.0 MeV)	2.0336E+05	7.3948E+04
13 (3.0 -> 4.0 MeV)	2.0394E+04	5.8269E+03
14 (4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15 (5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	5.8269E+03	7.3948E+04
5.1511E+05	1.3279E+06	1.5833E+04	2.5476E+05	3.5608E+06	3.9931E+01
7.2831E+05	6.8448E+03	6.8448E+03	2.8411E+02	3.7098E+04	3.7098E+04

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 11.57 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
H 1	7.5053E+10							
Mg 24	5.2810E+20							
Mg 25	6.6857E+19							
Mg 26	7.3609E+19							
Al 27	5.8264E+22							
Si 28	3.2025E+20							
Si 29	1.6288E+19							
Si 30	1.0766E+19							
P 31	8.9195E+12							
Ti 46	4.2007E+18							
Ti 47	3.7882E+18							
Ti 48	3.7536E+19							
Ti 49	2.7547E+18							
Ti 50	2.6375E+18							
V 51	1.1686E+13							
Cr 50	2.7167E+18							
Cr 51	3.2935E+11	5.5935E-10	1.9315E-03	1.1570E+03	9.5379E+04	2.5778E-06	3.6266E-03	Cr 51
Cr 52	5.2389E+19							
Cr 53	5.9398E+18							
Cr 54	1.4787E+18							
Mn 55	4.4392E+19							
Fe 54	1.1922E+19							
Fe 55	6.2786E+12	4.7584E-11	5.9251E-03	3.1190E+01	5.0424E+04	1.3628E-06	1.6641E-02	Fe 55
Fe 56	1.8698E+20							
Fe 57	4.3205E+18							
Fe 58	5.7062E+17							
Fe 59	2.4631E+10	9.2992E-10	5.1576E-03	1.9560E+03	4.4409E+03	1.2002E-07	7.9873E-03	Fe 59
Co 59	4.7107E+11							
Ni 63	7.5740E+10	4.6145E-14	2.0795E-04	0.0000E+00	1.6807E+01	4.5423E-10	2.5197E-06	Ni 63
Ni 64	1.1122E+14							
Cu 63	4.7790E+19							
Cu 64	3.3629E+04	2.5830E-14	1.7041E-09	3.5977E-02	5.0974E-01	1.3777E-11	6.1193E-08	Cu 64
Cu 65	2.1301E+19							
Zn 64	3.0216E+19							
Zn 65	1.4304E+13	4.4361E-08	1.3508E+00	1.0134E+05	4.6973E+05	1.2695E-05	1.8349E+00	Zn 65
Zn 66	1.7346E+19							
Zn 67	2.5491E+18							
Zn 68	1.1689E+19							
Zn 70	3.7304E+17							
Ga 69	1.9350E+13							
11.6 (d)		4.5898E-08	1.364034E+00	1.0449E+05	6.1999E+05	1.6757E-05	1.8631E+00	

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 11.57 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.6774E+03	3.0498E+04
2	(0.1 -> 0.2 MeV)	3.3052E+01	2.1324E+02
3	(0.2 -> 0.4 MeV)	3.0194E+03	1.0065E+04
4	(0.4 -> 0.6 MeV)	6.9130E+03	1.3826E+04
5	(0.6 -> 0.8 MeV)	1.0859E+01	1.5513E+01
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	2.6792E+05	2.4137E+05
8	(1.22 ->1.44 MeV)	2.4722E+03	1.8588E+03
9	(1.44 ->1.66 MeV)	3.6846E+00	2.3772E+00
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	1.8612E+03	2.4137E+05	0.0000E+00	1.5513E+01

1.3826E+04 5.0323E+03 5.0323E+03 2.1324E+02 1.5249E+04 1.5249E+04

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
H 1	7.5053E+10							
Mg 24	5.2810E+20							
Mg 25	6.6857E+19							
Mg 26	7.3609E+19							
Al 27	5.8264E+22							
Si 28	3.2025E+20							
Si 29	1.6288E+19							
Si 30	1.0766E+19							
P 31	8.9195E+12							
Ti 46	4.2007E+18							
Ti 47	3.7882E+18							
Ti 48	3.7536E+19							
Ti 49	2.7547E+18							
Ti 50	2.6375E+18							
V 51	1.2016E+13							
Cr 50	2.7167E+18							
Cr 52	5.2389E+19							
Cr 53	5.9398E+18							
Cr 54	1.4787E+18							
Mn 55	4.4392E+19							
Fe 54	1.1922E+19							
Fe 55	2.0584E+09	1.5600E-14	1.9425E-06	1.0225E-02	1.6531E+01	4.4679E-10	5.4558E-06	Fe 55
Fe 56	1.8698E+20							
Fe 57	4.3205E+18							
Fe 58	5.7062E+17							
Co 59	4.9570E+11							
Ni 63	6.0681E+10	3.6970E-14	1.6661E-04	0.0000E+00	1.3465E+01	3.6392E-10	2.0187E-06	Ni 63
Ni 64	1.1122E+14							
Cu 63	4.7790E+19							
Cu 65	2.1301E+19							
Zn 64	3.0216E+19							
Zn 66	1.7346E+19							
Zn 67	2.5491E+18							
Zn 68	1.1689E+19							
Zn 70	3.7304E+17							
Ga 69	1.9350E+13							
31.7 (y)		5.2570E-14	1.685496E-04	1.0225E-02	2.9996E+01	8.1071E-10	7.4746E-06	

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	2.7475E-02	4.9954E-01
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	0.0000E+00	0.0000E+00
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	0.0000E+00	0.0000E+00
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.4977E-01	2.4977E-01

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	7.50529E+10
He	2.05452E+09
Mg	6.68566E+20
Al	5.82643E+22

Si	3.47307E+20
P	8.91946E+12
S	2.14463E+05
Ca	8.22275E+07
Ti	5.09171E+19
V	1.20158E+13
Cr	6.25247E+19
Mn	4.43922E+19
Fe	2.03790E+20
Co	4.95700E+11
Ni	1.11281E+14
Cu	6.90913E+19
Zn	6.21732E+19
Ga	1.93895E+13
Ge	8.11666E+07
Totals:	5.97731E+22

AJBRF probid 02/17/03 12:00:00 AJBRF Specimen Flux (Initial)
AJBRF at the Omaha Veterans Affairs Hospital.

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	9.173E+00	2.174E+07	5.868E+07	1.586E+03	3.476E+00	2.670E-05	1.444791E+00
1.0 (s)	9.130E+00	2.164E+07	5.842E+07	1.579E+03	3.475E+00	2.657E-05	1.444764E+00
16.7 (m)	7.134E-01	2.603E+06	7.029E+06	1.900E+02	3.141E+00	1.862E-06	1.438209E+00
11.6 (d)	2.612E-02	2.296E+05	6.200E+05	1.676E+01	1.863E+00	4.590E-08	1.364034E+00
31.7 (y)	2.556E-09	1.111E+01	3.000E+01	8.107E-04	7.475E-06	5.257E-14	1.685496E-04

AJBRF probid 02/17/03 12:00:00 AJBRF Specimen Flux (Initial)
AJBRF at the Omaha Veterans Affairs Hospital.

For a volume of 1.0000E+00(cm3) of AL-6061 :

Time	Becquerel	Sv/h	ALI	Watt
zero	5.868E+07	9.173E+00	3.476E+00	2.670E-05
1.0 (s)	5.842E+07	9.130E+00	3.475E+00	2.657E-05
16.7 (m)	7.029E+06	7.134E-01	3.141E+00	1.862E-06
11.6 (d)	6.200E+05	2.612E-02	1.863E+00	4.590E-08
31.7 (y)	3.000E+01	2.556E-09	7.475E-06	5.257E-14

AJBRF probid 02/17/03 12:00:00 AJBRF Specimen Flux (Initial)
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	2.174E+10	9.889E-06	5.874E-01	3.669E+07
1.0 (s)	2.164E+10	9.841E-06	5.848E-01	3.652E+07
16.7 (m)	2.603E+09	6.895E-07	7.036E-02	2.854E+06
11.6 (d)	2.296E+08	1.700E-08	6.206E-03	1.045E+05
31.7 (y)	1.111E+04	1.947E-14	3.003E-07	1.023E-02

AJBRF probid 02/17/03 12:00:00 AJBRF Specimen Flux (Initial)
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/g	Sv/h	W/g	Cl Index
zero	2.174E+07	9.173E+00	9.889E-06	6.686E+07
1.0 (s)	2.164E+07	9.130E+00	9.841E-06	6.653E+07
16.7 (m)	2.603E+06	7.134E-01	6.895E-07	3.739E+06
11.6 (d)	2.296E+05	2.612E-02	1.700E-08	5.817E+05
31.7 (y)	1.111E+01	2.556E-09	1.947E-14	2.207E-02

The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000

we hope that all was O.K.!

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ANITA-2000 INPUT FILE

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1061clr
   10    6NYAJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.
 1.10      1.0000-12  1.0      Epoxy
H     3.0189
C    21.5845
O    28.6342
Mg    2.86342
Al    0.0080
Si    4.3454
Cl   21.2368
Ca    0.1080
Ti   18.1239
Fe    0.0423
         1         4
9.32074+070.0
1.00000+001.00000+031.00000+061.00000+09
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ANITA-2000 INPUT FILE

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*****************************************************
* Authors:                                          *
* Dan Gabriel Cepraga - ENEA Bologna Italy          *
* Gilio Cambi         - Bologna University Italy    *
* Manuela Frisoni     - ATHENA S.a.S. Bologna Italy *
* Gian Carlo Panini   - ENEA Bologna Italy          *
* (ANITA-2000 is based on the ANITA code by C. Ponti*
*  and S.Stramaccia     - CEC JRC Ispra,1989)       *
*****************************************************
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The Library    *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000
contains 1840  Nuclides.

Gamma Data were supplied for 1390 Nuclides.
     AJBRF Epoxy Coating probid 02/17/03 19:42:39
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AJBRF at the Omaha Veterans Affairs Hospital.

The Library Activation library
contains12392 Reactions.
at 175 Groups.

Set of Fluxes 6 : AJBRF Soil (Side) Flux

Fluxes

0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05
2.78570E+05	2.78570E+05	2.78570E+05	2.78570E+05	1.18160E+05	1.18160E+05
1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05	1.18160E+05
1.18160E+05					

Total Flux at 175 Groups : 2.64133E+07 !

DENSITY 1.100(g/cm3)

ELEM.	Weight %	AT.WEIGHT	ISO	Rel.Abb.	N/cm3
H	3.0189	1.0080			1.98392E+22
			H 1	0.99985	1.98363E+22
			H 2	0.00015	2.97589E+18
C	21.5845	12.0110			1.19042E+22
			C 12	0.98890	1.17721E+22
			C 13	0.01110	1.32137E+20
O	28.6342	16.0000			1.18550E+22
			O 16	0.99760	1.18266E+22
			O 17	0.00040	4.74201E+18
			O 18	0.00200	2.37100E+19
Mg	2.8634	24.3200			7.79930E+20
			Mg 24	0.78990	6.16066E+20
			Mg 25	0.10000	7.79930E+19
			Mg 26	0.11010	8.58703E+19
Al	0.0080	26.9800			1.96420E+18
			Al 27	1.00000	1.96420E+18
Si	4.3454	28.0900			1.02474E+21
			Si 28	0.92210	9.44916E+20
			Si 29	0.04690	4.80605E+19
			Si 30	0.03100	3.17670E+19
Cl	21.2368	35.4570			3.96757E+21
			Cl 35	0.75770	3.00622E+21
			Cl 37	0.24230	9.61341E+20
Ca	0.1080	40.0800			1.78498E+19
			Ca 40	0.96941	1.73038E+19
			Ca 42	0.00647	1.15488E+17
			Ca 43	0.00135	2.40972E+16
			Ca 44	0.02086	3.72347E+17
			Ca 46	0.00004	7.13992E+14
			Ca 48	0.00187	3.33791E+16
Ti	18.1239	47.9000			2.50642E+21
			Ti 46	0.08250	2.06779E+20
			Ti 47	0.07440	1.86477E+20
			Ti 48	0.73720	1.84773E+21
			Ti 49	0.05410	1.35597E+20
			Ti 50	0.05180	1.29832E+20
Fe	0.0423	55.8500			5.01712E+18
			Fe 54	0.05850	2.93501E+17
			Fe 56	0.91750	4.60321E+18
			Fe 57	0.02120	1.06363E+17
			Fe 58	0.00280	1.40479E+16
	99.9654				

AJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.

Isotope	N/cm3
H 1	1.98363E+22
H 2	2.97589E+18
C 12	1.17721E+22
C 13	1.32137E+20
O 16	1.18266E+22
O 17	4.74201E+18
O 18	2.37100E+19
Mg 24	6.16066E+20
Mg 25	7.79930E+19
Mg 26	8.58703E+19
Al 27	1.96420E+18
Si 28	9.44916E+20
Si 29	4.80605E+19
Si 30	3.17670E+19
Cl 35	3.00622E+21
Cl 37	9.61341E+20
Ca 40	1.73038E+19
Ca 42	1.15488E+17
Ca 43	2.40972E+16
Ca 44	3.72347E+17
Ca 46	7.13992E+14
Ca 48	3.33791E+16
Ti 46	2.06779E+20
Ti 47	1.86477E+20
Ti 48	1.84773E+21
Ti 49	1.35597E+20
Ti 50	1.29832E+20
Fe 54	2.93501E+17
Fe 56	4.60321E+18
Fe 57	1.06363E+17
Fe 58	1.40479E+16

In Total : 5.19019E+22 Min. acceptable Conc. : 5.19019E+10 N/cm3.

Elapsed Time.

Step 1 : Activation of 9.32074E+07(s), i.e. 2.95 (y) 2.95 (y) Intervals : 2

Cooling Times (s) :

1.0000E+00 1.0000E+03 1.0000E+06 1.0000E+09

1.0 (s) 16.7 (m) 11.6 (d) 31.7 (y)

AJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 2.95 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
H 1	1.9836E+22								
H 2	2.9759E+18								
C 12	1.1772E+22								
C 13	1.3214E+20								
O 16	1.1827E+22								
O 17	4.7420E+18								
O 18	2.3710E+19								
Mg 24	6.1607E+20								
Mg 25	7.7993E+19								
Mg 26	8.5870E+19								
Mg 27	1.7934E+03	5.5882E-13	4.5767E-10	1.7737E+00	2.1897E+00	5.9182E-11	4.1630E-08	9.461E+00 (m)	Mg 27
Al 27	1.9642E+18								
Al 28	6.5061E+01	1.6229E-13	3.1482E-11	5.4359E-01	3.3539E-01	9.0646E-12	1.6441E-09	2.241E+00 (m)	Al 28
Si 28	9.4492E+20								
Si 29	4.8060E+19								
Si 30	3.1767E+19								
Si 31	7.4651E+05	5.2337E-12	7.1264E-08	4.4856E-02	5.4824E+01	1.4817E-09	8.7718E-06	2.622E+00 (h)	Si 31
P 32	9.1867E+06	5.7537E-13	1.0227E-06	0.0000E+00	5.1685E+00	1.3969E-10	1.2394E-05	1.426E+01 (d)	P 32
S 35	7.6667E+08	5.4991E-13	5.9975E-06	0.0000E+00	7.0296E+01	1.8999E-09	5.4074E-05	8.750E+01 (d)	S 35
Cl 35	3.0062E+21								
Cl 36	6.0593E+12	1.9312E-14	2.6552E-01	9.4953E-06	4.4071E-01	1.1911E-11	4.0806E-07	3.020E+05 (y)	Cl 36
Cl 37	9.6134E+20								
Cl 38	8.3237E+05	1.2494E-10	4.0226E-07	3.5107E+02	2.5853E+02	6.9874E-09	3.1036E-05	3.719E+01 (m)	Cl 38
Cl 38m1	3.1613E+01	3.0605E-12	3.3999E-12	1.7368E+01	2.8458E+01	7.6913E-10	1.4822E-09	7.700E-01 (s)	Cl 38m1
Ca 40	1.7304E+19								
Ca 42	1.1549E+17								
Ca 43	2.4097E+16								
Ca 44	3.7235E+17								
Ca 45	4.0292E+06	2.4577E-15	4.9841E-08	0.0000E+00	1.9868E-01	5.3697E-12	1.5052E-07	1.627E+02 (d)	Ca 45
Ca 46	7.1399E+14								
Ca 48	3.3379E+16								
Ti 46	2.0678E+20								
Ti 47	1.8648E+20								
Ti 48	1.8477E+21								
Ti 49	1.3560E+20								
Ti 50	1.2983E+20								
Ti 51	7.1901E+03	2.8302E-12	1.4208E-09	4.7467E+00	1.4323E+01	3.8710E-10	2.1473E-07	5.799E+00 (m)	Ti 51
Fe 54	2.9350E+17								

Fe 55	3.0256E+07	2.2930E-16	2.8552E-08	3.6891E-04	2.4298E-01	6.5671E-12	8.0192E-08	2.735E+00 (y)	Fe 55
Fe 56	4.6032E+18								
Fe 57	1.0636E+17								
Fe 58	1.4048E+16								

here are 42 Nuclides.

Totals: 5.1902E+22 1.3794E-10 2.655279E-01 3.7555E+02 4.3501E+02 1.1757E-08 1.0717E-04

AJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 2.95 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.98392E+22
He	8.21046E+08
C	1.19042E+22
N	9.92259E+04
O	1.18550E+22
F	2.29376E+05
Mg	7.79930E+20
Al	1.96420E+18
Si	1.02474E+21
P	5.11843E+09
S	1.23960E+09
Cl	3.96757E+21
Ar	2.41158E+10
K	6.49299E+03
Ca	1.78498E+19
Sc	1.46784E+07
Ti	2.50642E+21
V	1.33498E+09
Cr	1.16012E-05
Mn	1.27235E+07
Fe	5.01712E+18
Co	2.22858E+06

Production of H : 0. appm/y.

Production of He : 0. appm/y.

AJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	4.2990E-04	7.8163E-03
2	(0.1 -> 0.2 MeV)	2.9901E-03	1.9291E-02
3	(0.2 -> 0.4 MeV)	4.3186E+00	1.4395E+01
4	(0.4 -> 0.6 MeV)	7.4767E-06	1.4953E-05
5	(0.6 -> 0.8 MeV)	1.9219E+01	2.7456E+01
6	(0.8 -> 1.0 MeV)	2.0783E+00	2.3093E+00
7	(1.0 ->1.22 MeV)	6.2198E-01	5.6034E-01
8	(1.22 ->1.44 MeV)	4.8591E-02	3.6534E-02
9	(1.44 ->1.66 MeV)	1.3788E+02	8.8955E+01
10	(1.66 -> 2.0 MeV)	5.9656E-01	3.2599E-01
11	(2.0 -> 2.5 MeV)	2.4656E+02	1.0958E+02
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	2.4269E-01	6.9339E-02
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	6.9339E-02	0.0000E+00
1.0958E+02	3.2599E-01	8.8992E+01	5.6034E-01	2.3093E+00	2.7456E+01
1.4953E-05	7.1976E+00	7.1976E+00	1.9291E-02	3.9082E-03	3.9082E-03

AJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 1.00 (s)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
H 1	1.9836E+22						
H 2	2.9759E+18						
C 12	1.1772E+22						
C 13	1.3214E+20						
O 16	1.1827E+22						
O 17	4.7420E+18						
O 18	2.3710E+19						
Mg 24	6.1607E+20						
Mg 25	7.7993E+19						
Mg 26	8.5870E+19						

Mg 27	1.7912E+03	5.5813E-13	4.5711E-10	1.7715E+00	2.1871E+00	5.9110E-11	4.1579E-08	Mg 27
Al 27	1.9642E+18							
Al 28	6.4727E+01	1.6145E-13	3.1320E-11	5.4080E-01	3.3367E-01	9.0180E-12	1.6356E-09	Al 28
Si 28	9.4492E+20							
Si 29	4.8060E+19							
Si 30	3.1767E+19							
Si 31	7.4646E+05	5.2333E-12	7.1259E-08	4.4853E-02	5.4820E+01	1.4816E-09	8.7712E-06	Si 31
P 32	9.1867E+06	5.7537E-13	1.0227E-06	0.0000E+00	5.1685E+00	1.3969E-10	1.2394E-05	P 32
S 35	7.6667E+08	5.4991E-13	5.9975E-06	0.0000E+00	7.0296E+01	1.8999E-09	5.4074E-05	S 35
Cl 35	3.0062E+21							
Cl 36	6.0593E+12	1.9312E-14	2.6552E-01	9.4953E-06	4.4071E-01	1.1911E-11	4.0806E-07	Cl 36
Cl 37	9.6134E+20							
Cl 38	8.3213E+05	1.2491E-10	4.0215E-07	3.5097E+02	2.5846E+02	6.9854E-09	3.1027E-05	Cl 38
Cl 38m1	1.2850E+01	1.2441E-12	1.3820E-12	7.0598E+00	1.1568E+01	3.1264E-10	6.0249E-10	Cl 38m1
Ca 40	1.7304E+19							
Ca 42	1.1549E+17							
Ca 43	2.4097E+16							
Ca 44	3.7235E+17							
Ca 45	4.0292E+06	2.4577E-15	4.9841E-08	0.0000E+00	1.9868E-01	5.3697E-12	1.5052E-07	Ca 45
Ca 46	7.1399E+14							
Ca 48	3.3379E+16							
Ti 46	2.0678E+20							
Ti 47	1.8648E+20							
Ti 48	1.8477E+21							
Ti 49	1.3560E+20							
Ti 50	1.2983E+20							
Ti 51	7.1758E+03	2.8246E-12	1.4180E-09	4.7373E+00	1.4294E+01	3.8633E-10	2.1431E-07	Ti 51
Fe 54	2.9350E+17							
Fe 55	3.0256E+07	2.2930E-16	2.8552E-08	3.6891E-04	2.4298E-01	6.5671E-12	8.0192E-08	Fe 55
Fe 56	4.6032E+18							
Fe 57	1.0636E+17							
Fe 58	1.4048E+16							
1.0 (s)		1.3608E-10	2.655279E-01	3.6512E+02	4.1801E+02	1.1297E-08	1.0716E-04	

AJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 1.00 (s)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	4.2985E-04	7.8154E-03
2	(0.1 -> 0.2 MeV)	2.9864E-03	1.9267E-02
3	(0.2 -> 0.4 MeV)	4.3100E+00	1.4367E+01
4	(0.4 -> 0.6 MeV)	7.4767E-06	1.4953E-05
5	(0.6 -> 0.8 MeV)	7.8805E+00	1.1258E+01
6	(0.8 -> 1.0 MeV)	2.0752E+00	2.3058E+00
7	(1.0 ->1.22 MeV)	6.2122E-01	5.5966E-01
8	(1.22 ->1.44 MeV)	4.8587E-02	3.6532E-02
9	(1.44 ->1.66 MeV)	1.3784E+02	8.8930E+01
10	(1.66 -> 2.0 MeV)	5.9349E-01	3.2431E-01
11	(2.0 -> 2.5 MeV)	2.4649E+02	1.0955E+02
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	2.4262E-01	6.9319E-02
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	6.9319E-02	0.0000E+00
1.0955E+02	3.2431E-01	8.8966E+01	5.5966E-01	2.3058E+00	1.1258E+01
1.4953E-05	7.1833E+00	7.1833E+00	1.9267E-02	3.9077E-03	3.9077E-03

AJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.67 (m)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
H 1	1.9836E+22							
H 2	2.9759E+18							
C 12	1.1772E+22							
C 13	1.3214E+20							
O 16	1.1827E+22							
O 17	4.7420E+18							
O 18	2.3710E+19							
Mg 24	6.1607E+20							
Mg 25	7.7993E+19							
Mg 26	8.5870E+19							
Mg 27	5.2893E+02	1.6481E-13	1.3498E-10	5.2312E-01	6.4583E-01	1.7455E-11	1.2278E-08	Mg 27
Al 27	1.9642E+18							
Si 28	9.4492E+20							
Si 29	4.8060E+19							
Si 30	3.1767E+19							
Si 31	6.9365E+05	4.8631E-12	6.6218E-08	4.1680E-02	5.0942E+01	1.3768E-09	8.1507E-06	Si 31
P 32	9.1816E+06	5.7504E-13	1.0221E-06	0.0000E+00	5.1656E+00	1.3961E-10	1.2387E-05	P 32
S 35	7.6660E+08	5.4986E-13	5.9969E-06	0.0000E+00	7.0290E+01	1.8997E-09	5.4069E-05	S 35
Cl 35	3.0062E+21							
Cl 36	6.0593E+12	1.9312E-14	2.6552E-01	9.4953E-06	4.4071E-01	1.1911E-11	4.0806E-07	Cl 36
Cl 37	9.6134E+20							

Cl 38	6.1015E+05	9.1587E-11	2.9487E-07	2.5735E+02	1.8951E+02	5.1220E-09	2.2751E-05	Cl 38
Ca 40	1.7304E+19							
Ca 42	1.1549E+17							
Ca 43	2.4097E+16							
Ca 44	3.7235E+17							
Ca 45	4.0290E+06	2.4576E-15	4.9839E-08	0.0000E+00	1.9867E-01	5.3695E-12	1.5051E-07	Ca 45
Ca 46	7.1399E+14							
Ca 48	3.3379E+16							
Ti 46	2.0678E+20							
Ti 47	1.8648E+20							
Ti 48	1.8477E+21							
Ti 49	1.3560E+20							
Ti 50	1.2983E+20							
Ti 51	9.8089E+02	3.8611E-13	1.9383E-10	6.4756E-01	1.9539E+00	5.2809E-11	2.9294E-08	Ti 51
Fe 54	2.9350E+17							
Fe 55	3.0255E+07	2.2930E-16	2.8552E-08	3.6891E-04	2.4298E-01	6.5670E-12	8.0191E-08	Fe 55
Fe 56	4.6032E+18							
Fe 57	1.0636E+17							
Fe 58	1.4048E+16							
16.7 (m)		9.8148E-11	2.655278E-01	2.5856E+02	3.1939E+02	8.6322E-09	9.8038E-05	

AJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.67 (m)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	4.0854E-04	7.4281E-03
2	(0.1 -> 0.2 MeV)	8.8187E-04	5.6895E-03
3	(0.2 -> 0.4 MeV)	5.8915E-01	1.9638E+00
4	(0.4 -> 0.6 MeV)	7.4767E-06	1.4953E-05
5	(0.6 -> 0.8 MeV)	1.5682E-02	2.2403E-02
6	(0.8 -> 1.0 MeV)	4.9381E-01	5.4868E-01
7	(1.0 ->1.22 MeV)	1.8344E-01	1.6526E-01
8	(1.22 ->1.44 MeV)	4.5150E-02	3.3947E-02
9	(1.44 ->1.66 MeV)	1.0107E+02	6.5207E+01
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	1.8074E+02	8.0328E+01
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	1.7790E-01	5.0828E-02
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	5.0828E-02	0.0000E+00
8.0328E+01	0.0000E+00	6.5241E+01	1.6526E-01	5.4868E-01	2.2403E-02
1.4953E-05	9.8191E-01	9.8191E-01	5.6895E-03	3.7140E-03	3.7140E-03

AJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 11.57 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
H 1	1.9836E+22							
H 2	2.9759E+18							
C 12	1.1772E+22							
C 13	1.3214E+20							
O 16	1.1827E+22							
O 17	4.7420E+18							
O 18	2.3710E+19							
Mg 24	6.1607E+20							
Mg 25	7.7993E+19							
Mg 26	8.5870E+19							
Al 27	1.9642E+18							
Si 28	9.4492E+20							
Si 29	4.8060E+19							
Si 30	3.1767E+19							
P 32	5.2339E+06	3.2780E-13	5.8266E-07	0.0000E+00	2.9446E+00	7.9584E-11	7.0614E-06	P 32
S 35	6.9950E+08	5.0173E-13	5.4720E-06	0.0000E+00	6.4137E+01	1.7334E-09	4.9336E-05	S 35
Cl 35	3.0062E+21							
Cl 36	6.0593E+12	1.9312E-14	2.6552E-01	9.4953E-06	4.4071E-01	1.1911E-11	4.0806E-07	Cl 36
Cl 37	9.6134E+20							
Ca 40	1.7304E+19							
Ca 42	1.1549E+17							
Ca 43	2.4097E+16							
Ca 44	3.7235E+17							
Ca 45	3.8353E+06	2.3394E-15	4.7443E-08	0.0000E+00	1.8912E-01	5.1114E-12	1.4327E-07	Ca 45
Ca 46	7.1399E+14							
Ca 48	3.3379E+16							
Ti 46	2.0678E+20							
Ti 47	1.8648E+20							
Ti 48	1.8477E+21							
Ti 49	1.3560E+20							
Ti 50	1.2983E+20							
Fe 54	2.9350E+17							
Fe 55	3.0014E+07	2.2747E-16	2.8323E-08	3.6596E-04	2.4104E-01	6.5146E-12	7.9551E-08	Fe 55
Fe 56	4.6032E+18							

Fe 57	1.0636E+17						
Fe 58	1.4048E+16						
11.6 (d)		8.5141E-13	2.655264E-01	3.7546E-04	6.7953E+01	1.8366E-09	5.7029E-05

AJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 11.57 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	4.0194E-04	7.3081E-03
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	7.4767E-06	1.4953E-05
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	0.0000E+00	0.0000E+00
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
1.4953E-05	0.0000E+00	0.0000E+00	0.0000E+00	3.6540E-03	3.6540E-03

AJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
H 1	1.9836E+22							
H 2	2.9759E+18							
C 12	1.1772E+22							
C 13	1.3214E+20							
O 16	1.1827E+22							
O 17	4.7420E+18							
O 18	2.3710E+19							
Mg 24	6.1607E+20							
Mg 25	7.7993E+19							
Mg 26	8.5870E+19							
Al 27	1.9642E+18							
Si 28	9.4492E+20							
Si 29	4.8060E+19							
Si 30	3.1767E+19							
Cl 35	3.0062E+21							
Cl 36	6.0589E+12	1.9310E-14	2.6550E-01	9.4946E-06	4.4068E-01	1.1910E-11	4.0803E-07	Cl 36
Cl 37	9.6134E+20							
Ca 40	1.7304E+19							
Ca 42	1.1549E+17							
Ca 43	2.4097E+16							
Ca 44	3.7235E+17							
Ca 46	7.1399E+14							
Ca 48	3.3379E+16							
Ti 46	2.0678E+20							
Ti 47	1.8648E+20							
Ti 48	1.8477E+21							
Ti 49	1.3560E+20							
Ti 50	1.2983E+20							
Fe 54	2.9350E+17							
Fe 56	4.6032E+18							
Fe 57	1.0636E+17							
Fe 58	1.4048E+16							
31.7 (y)		1.9310E-14	2.655010E-01	9.4946E-06	4.4068E-01	1.1910E-11	4.0803E-07	

AJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.3330E-06	2.4236E-05
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	7.4762E-06	1.4952E-05
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00

9 (1.44 ->1.66 MeV)	0.0000E+00	0.0000E+00
10 (1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11 (2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12 (2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13 (3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14 (4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15 (5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
1.4952E-05	0.0000E+00	0.0000E+00	0.0000E+00	1.2118E-05	1.2118E-05

AJBRF Epoxy Coating probid 02/17/03 19:42:39
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	1.98392E+22
He	8.21110E+08
C	1.19042E+22
N	1.71771E+06
O	1.18550E+22
F	2.29376E+05
Mg	7.79930E+20
Al	1.96420E+18
Si	1.02474E+21
P	5.10999E+09
S	4.90488E+08
Cl	3.96757E+21
Ar	2.45489E+10
K	1.09243E+05
Ca	1.78498E+19
Sc	1.87074E+07
Ti	2.50642E+21
V	1.33498E+09
Cr	0.00000E+00
Mn	4.29692E+07
Fe	5.01712E+18
Co	2.36958E+06
Totals:	5.19019E+22

AJBRF Epoxy Coating probid 02/17/03 19:42:39 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	9.389E-05	3.955E+02	4.350E+02	1.176E-02	1.072E-04	1.379E-10	2.655279E-01
1.0 (s)	9.128E-05	3.800E+02	4.180E+02	1.130E-02	1.072E-04	1.361E-10	2.655279E-01
16.7 (m)	6.464E-05	2.904E+02	3.194E+02	8.632E-03	9.804E-05	9.815E-11	2.655278E-01
11.6 (d)	9.386E-11	6.178E+01	6.795E+01	1.837E-03	5.703E-05	8.514E-13	2.655264E-01
31.7 (y)	2.374E-12	4.006E-01	4.407E-01	1.191E-05	4.080E-07	1.931E-14	2.655010E-01

AJBRF Epoxy Coating probid 02/17/03 19:42:39 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

For a volume of 1.0000E+00(cm3) of Epoxy :

Time	Becquerel	Sv/h	ALI	Watt
zero	4.350E+02	9.389E-05	1.072E-04	1.379E-10
1.0 (s)	4.180E+02	9.128E-05	1.072E-04	1.361E-10
16.7 (m)	3.194E+02	6.464E-05	9.804E-05	9.815E-11
11.6 (d)	6.795E+01	9.386E-11	5.703E-05	8.514E-13
31.7 (y)	4.407E-01	2.374E-12	4.080E-07	1.931E-14

AJBRF Epoxy Coating probid 02/17/03 19:42:39 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	3.955E+05	1.254E-10	1.069E-05	3.755E+02
1.0 (s)	3.800E+05	1.237E-10	1.027E-05	3.651E+02
16.7 (m)	2.904E+05	8.923E-11	7.847E-06	2.586E+02
11.6 (d)	6.178E+04	7.740E-13	1.670E-06	3.755E-04
31.7 (y)	4.006E+02	1.755E-14	1.083E-08	9.495E-06

AJBRF Epoxy Coating probid 02/17/03 19:42:39 AJBRF Soil (Side) Flux
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/g	Sv/h	W/g	Cl Index
zero	3.955E+02	9.389E-05	1.254E-10	4.144E+02
1.0 (s)	3.800E+02	9.128E-05	1.237E-10	4.040E+02
16.7 (m)	2.904E+02	6.464E-05	8.923E-11	2.863E+02
11.6 (d)	6.178E+01	9.386E-11	7.740E-13	3.048E-02
31.7 (y)	4.006E-01	2.374E-12	1.755E-14	1.335E-03

The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000

we hope that all was O.K.!

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ANITA-2000 INPUT FILE

```
grapinv
grapclr
    1    2NYAJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.
 2.25      1.0000-12  1.0      Graphite
C  100.0
         1         4
9.32074+070.0
1.00000+001.00000+031.00000+061.00000+09
0
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ANITA-2000 INPUT FILE

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```
*****************************************************
* Authors:                                          *
* Dan Gabriel Cepraga - ENEA Bologna Italy          *
* Gilio Cambi         - Bologna University Italy    *
* Manuela Frisoni     - ATHENA S.a.S. Bologna Italy *
* Gian Carlo Panini   - ENEA Bologna Italy          *
* (ANITA-2000 is based on the ANITA code by C. Ponti*
*  and S.Stramaccia     - CEC JRC Ispra,1989)       *
*****************************************************
```

```
The Library    *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000
contains 1840  Nuclides.

Gamma Data were supplied for 1390 Nuclides.
     AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

The Library Activation library
contains12392  Reactions.
         at  175 Groups.
```

Set of Fluxes 2 : AJBRF Normalized Flux (Initial)

Fluxes

0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	5.11680E+09	5.11680E+09	5.11680E+09
5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09
5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09
5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09
5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09
5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09
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5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09
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5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09
5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09
5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09
5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09
5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09
5.11680E+09	5.11680E+09	5.11680E+09	5.11680E+09	2.17030E+09	2.17030E+09
2.17030E+09	2.17030E+09	2.17030E+09	2.17030E+09	2.17030E+09	2.17030E+09
2.17030E+09					

Total Flux at 175 Groups : 4.85162E+11 !

DENSITY 2.250(g/cm3)

ELEM.	Weight %	AT.WEIGHT	ISO	Rel.Abb.	N/cm3
C	100.0000	12.0110			1.12810E+23
			C 12	0.98890	1.11558E+23
			C 13	0.01110	1.25219E+21
	100.0000				

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AJBRF at the Omaha Veterans Affairs Hospital.

Isotope	N/cm3
C 12	1.11558E+23
C 13	1.25219E+21

In Total : 1.12810E+23 Min. acceptable Conc. : 1.12810E+11 N/cm3.

Elapsed Time.

Step 1 : Activation of 9.32074E+07(s), i.e. 2.95 (y) 2.95 (y) Intervals : 10

Cooling Times (s) :

1.0000E+00 1.0000E+03 1.0000E+06 1.0000E+09

1.0 (s) 16.7 (m) 11.6 (d) 31.7 (y)

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 2.95 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2
C 12	1.1156E+23							
C 13	1.2522E+21							
C 14	1.5104E+13	4.5886E-13	1.1971E-01	0.0000E+00	5.7894E+01	1.5647E-09	3.3660E-05	5.730E+03 (y)

C 14 here are 3 Nuclides.

Totals: 1.1281E+23 4.5886E-13 1.197142E-01 0.0000E+00 5.7894E+01 1.5647E-09 3.3660E-05

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

Elapsed Time : 2.95 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
C	1.12810E+23

N 2.69841E+09
AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	0.0000E+00	0.0000E+00
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	0.0000E+00	0.0000E+00
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	0.0000E+00	0.0000E+00
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 1.00 (s)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
C 12	1.1156E+23							
C 13	1.2522E+21							
C 14	1.5104E+13	4.5886E-13	1.1971E-01	0.0000E+00	5.7894E+01	1.5647E-09	3.3660E-05	C 14
1.0 (s)		4.5886E-13	1.197142E-01	0.0000E+00	5.7894E+01	1.5647E-09	3.3660E-05	

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 1.00 (s)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	0.0000E+00	0.0000E+00
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	0.0000E+00	0.0000E+00
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	0.0000E+00	0.0000E+00
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.67 (m)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
C 12	1.1156E+23							
C 13	1.2522E+21							
C 14	1.5104E+13	4.5886E-13	1.1971E-01	0.0000E+00	5.7894E+01	1.5647E-09	3.3660E-05	C 14
16.7 (m)		4.5886E-13	1.197142E-01	0.0000E+00	5.7894E+01	1.5647E-09	3.3660E-05	

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 16.67 (m)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	0.0000E+00	0.0000E+00
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	0.0000E+00	0.0000E+00
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	0.0000E+00	0.0000E+00
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 11.57 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
C 12	1.1156E+23							
C 13	1.2522E+21							
C 14	1.5104E+13	4.5886E-13	1.1971E-01	0.0000E+00	5.7894E+01	1.5647E-09	3.3659E-05	C 14
11.6 (d)		4.5886E-13	1.197138E-01	0.0000E+00	5.7894E+01	1.5647E-09	3.3659E-05	

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 11.57 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	0.0000E+00	0.0000E+00
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	0.0000E+00	0.0000E+00
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	0.0000E+00	0.0000E+00
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
C 12	1.1156E+23							
C 13	1.2522E+21							
C 14	1.5046E+13	4.5711E-13	1.1926E-01	0.0000E+00	5.7673E+01	1.5587E-09	3.3531E-05	C 14
31.7 (y)		4.5711E-13	1.192562E-01	0.0000E+00	5.7673E+01	1.5587E-09	3.3531E-05	

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s

1	(10 -> 100 KeV)	0.0000E+00	0.0000E+00
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	0.0000E+00	0.0000E+00
4	(0.4 -> 0.6 MeV)	0.0000E+00	0.0000E+00
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	0.0000E+00	0.0000E+00
7	(1.0 ->1.22 MeV)	0.0000E+00	0.0000E+00
8	(1.22 ->1.44 MeV)	0.0000E+00	0.0000E+00
9	(1.44 ->1.66 MeV)	0.0000E+00	0.0000E+00
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	0.0000E+00	0.0000E+00
12	(2.5 -> 3.0 MeV)	0.0000E+00	0.0000E+00
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

AJBRF probid 02/17/03 12:00:00
AJBRF at the Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

COMPOSITION :

ELEMENT	ATOMES/cm3
C	1.12810E+23
N	6.04819E+10
Totals:	1.12810E+23

AJBRF probid 02/17/03 12:00:00 AJBRF Normalized Flux (Initial)
AJBRF at the Omaha Veterans Affairs Hospital.

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	0.000E+00	2.573E+01	5.789E+01	1.565E-03	3.366E-05	4.589E-13	1.197142E-01
1.0 (s)	0.000E+00	2.573E+01	5.789E+01	1.565E-03	3.366E-05	4.589E-13	1.197142E-01
16.7 (m)	0.000E+00	2.573E+01	5.789E+01	1.565E-03	3.366E-05	4.589E-13	1.197142E-01
11.6 (d)	0.000E+00	2.573E+01	5.789E+01	1.565E-03	3.366E-05	4.589E-13	1.197138E-01
31.7 (y)	0.000E+00	2.563E+01	5.767E+01	1.559E-03	3.353E-05	4.571E-13	1.192562E-01

AJBRF probid 02/17/03 12:00:00 AJBRF Normalized Flux (Initial)
AJBRF at the Omaha Veterans Affairs Hospital.

For a volume of 1.0000E+00(cm3) of Graphite :

Time	Becquerel	Sv/h	ALI	Watt
zero	5.789E+01	0.000E+00	3.366E-05	4.589E-13
1.0 (s)	5.789E+01	0.000E+00	3.366E-05	4.589E-13
16.7 (m)	5.789E+01	0.000E+00	3.366E-05	4.589E-13
11.6 (d)	5.789E+01	0.000E+00	3.366E-05	4.589E-13
31.7 (y)	5.767E+01	0.000E+00	3.353E-05	4.571E-13

AJBRF probid 02/17/03 12:00:00 AJBRF Normalized Flux (Initial)
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	2.573E+04	2.039E-13	6.954E-07	0.000E+00
1.0 (s)	2.573E+04	2.039E-13	6.954E-07	0.000E+00
16.7 (m)	2.573E+04	2.039E-13	6.954E-07	0.000E+00
11.6 (d)	2.573E+04	2.039E-13	6.954E-07	0.000E+00
31.7 (y)	2.563E+04	2.032E-13	6.928E-07	0.000E+00

AJBRF probid 02/17/03 12:00:00 AJBRF Normalized Flux (Initial)
AJBRF at the Omaha Veterans Affairs Hospital.

Time	Bq/g	Sv/h	W/g	Cl Index
zero	2.573E+01	0.000E+00	2.039E-13	8.577E-02
1.0 (s)	2.573E+01	0.000E+00	2.039E-13	8.577E-02
16.7 (m)	2.573E+01	0.000E+00	2.039E-13	8.577E-02
11.6 (d)	2.573E+01	0.000E+00	2.039E-13	8.577E-02
31.7 (y)	2.563E+01	0.000E+00	2.032E-13	8.544E-02

The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000

we hope that all was O.K.!

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ANITA-2000 INPUT FILE

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cstinv
cstclr
    6    5YYOVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.
 7.87       1.0000-12  1.0       Carbon Steel
C   0.15
P   0.04
S   0.05
Cu  0.20
Mn  0.36
Fe 99.20
         1          4
9.32074+070.0
1.00000+001.00000+031.00000+061.00000+09
0
        -1
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ANITA-2000 INPUT FILE

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*****************************************************
* Authors:                                          *
* Dan Gabriel Cepraga - ENEA Bologna Italy          *
* Gilio Cambi         - Bologna University Italy    *
* Manuela Frisoni     - ATHENA S.a.S. Bologna Italy *
* Gian Carlo Panini   - ENEA Bologna Italy          *
* (ANITA-2000 is based on the ANITA code by C. Ponti*
*  and S.Stramaccia     - CEC JRC Ispra,1989)       *
*****************************************************
```

The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000 contains 1840 Nuclides.

Gamma Data were supplied for 1390 Nuclides.

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

The Library Activation library
contains12392 Reactions.
at 175 Groups.

Set of Fluxes 5 : AJBRF Pneumatic Flux (Initial)

Fluxes

0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
0.00000E+00	0.00000E+00	0.00000E+00	3.94520E+09	3.94520E+09	3.94520E+09
3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09
3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09
3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09
3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09
3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09
3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09
3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09
3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09
3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09
3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09
3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09
3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09
3.94520E+09	3.94520E+09	3.94520E+09	3.94520E+09	1.67340E+09	1.67340E+09
1.67340E+09	1.67340E+09	1.67340E+09	1.67340E+09	1.67340E+09	1.67340E+09
1.67340E+09					

Total Flux at 175 Groups : 3.74074E+11 !

DENSITY 7.870(g/cm3)

ELEM.	Weight %	AT.WEIGHT	ISO	Rel.Abb.	N/cm3
C	0.1500	12.0110			5.91877E+20
			C 12	0.98890	5.85307E+20
			C 13	0.01110	6.56983E+18
P	0.0400	30.9750			6.12023E+19
			P 31	1.00000	6.12023E+19
S	0.0500	32.0660			7.39000E+19
			S 32	0.95020	7.02198E+19
			S 33	0.00750	5.54250E+17
			S 34	0.04210	3.11119E+18
			S 36	0.00020	1.47800E+16
Cu	0.2000	63.5400			1.49177E+20
			Cu 63	0.69170	1.03186E+20
			Cu 65	0.30830	4.59913E+19
Mn	0.3600	54.9400			3.10551E+20
			Mn 55	1.00000	3.10551E+20
Fe	99.2000	55.8500			8.41797E+22
			Fe 54	0.05850	4.92451E+21
			Fe 56	0.91750	7.72349E+22
			Fe 57	0.02120	1.78461E+21
			Fe 58	0.00280	2.35703E+20
	100.0000				

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

Isotope	N/cm3
C 12	5.85307E+20
C 13	6.56983E+18
P 31	6.12023E+19
S 32	7.02198E+19
S 33	5.54250E+17
S 34	3.11119E+18
S 36	1.47800E+16
Mn 55	3.10551E+20
Fe 54	4.92451E+21
Fe 56	7.72349E+22
Fe 57	1.78461E+21
Fe 58	2.35703E+20
Cu 63	1.03186E+20
Cu 65	4.59913E+19

In Total : 8.53664E+22 Min. acceptable Conc. : 8.53664E+10 N/cm3.

Elapsed Time.

Step 1 : Activation of 9.32074E+07(s), i.e. 2.95 (y) 2.95 (y) Intervals : 10

Cooling Times (s) :

1.0000E+00 1.0000E+03 1.0000E+06 1.0000E+09

1.0 (s) 16.7 (m) 11.6 (d) 31.7 (y)

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

Elapsed Time : 2.95 (y) Cooling Time 0.

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	T/2	
H 1	4.8158E+11								
He 4	2.0399E+13								
C 12	5.8531E+20								
C 13	6.5698E+18								
Si 29	1.7138E+13								
Si 30	3.2606E+12								
P 31	6.1202E+19								
P 32	1.7154E+11	1.0743E-08	1.9096E-02	0.0000E+00	9.6507E+04	2.6083E-06	2.3143E-01	1.426E+01 (d)	P 32
P 33	1.2454E+09	4.8259E-12	1.5277E-05	0.0000E+00	3.9341E+02	1.0633E-08	9.4344E-05	2.540E+01 (d)	P 33
S 32	7.0220E+19								
S 33	5.5428E+17								
S 34	3.1112E+18								
S 35	5.9000E+10	4.2319E-11	4.6154E-04	0.0000E+00	5.4097E+03	1.4621E-07	4.1613E-03	8.750E+01 (d)	S 35
S 36	1.4780E+16								
S 37	1.2262E+04	1.6962E-11	7.3272E-09	1.0593E+01	2.8386E+01	7.6718E-10	4.2557E-07	4.990E+00 (m)	S 37
Cl 35	4.4531E+11								
Mn 55	3.1055E+20								
Mn 56	1.0622E+12	3.2071E-05	4.2956E-01	1.7136E+07	7.9301E+07	2.1433E-03	1.9825E+01	2.579E+00 (h)	Mn 56
Fe 54	4.9245E+21								
Fe 55	7.1893E+15	5.4486E-08	6.7845E+00	1.2253E+04	5.7738E+07	1.5605E-03	1.9055E+01	2.735E+00 (y)	Fe 55
Fe 56	7.7235E+22								
Fe 57	1.7848E+21								
Fe 58	2.3571E+20								
Fe 59	3.3506E+13	1.2650E-06	7.0160E+00	9.1285E+05	6.0411E+06	1.6327E-04	1.0865E+01	4.450E+01 (d)	Fe 59
Co 59	5.2954E+14								
Co 60	2.2504E+10	3.9069E-11	9.3759E-03	2.9836E+01	9.3776E+01	2.5345E-09	3.1896E-04	5.271E+00 (y)	Co 60
Co 60m1	2.9030E+05	3.2689E-12	2.9636E-09	2.8188E-01	3.2020E+02	8.6541E-09	5.4456E-07	1.047E+01 (m)	Co 60m1
Ni 63	4.4030E+11	2.6826E-13	1.2089E-03	0.0000E+00	9.7703E+01	2.6406E-09	1.4648E-05	9.898E+01 (y)	Ni 63
Ni 64	6.5987E+14								
Ni 65	1.1145E+05	1.6092E-12	2.1062E-08	5.9501E-01	8.5151E+00	2.3014E-10	1.5315E-06	2.520E+00 (h)	Ni 65
Cu 63	1.0318E+20								
Cu 64	7.6441E+11	5.8715E-07	3.8735E-02	2.8057E+05	1.1587E+07	3.1316E-04	1.3910E+00	1.270E+01 (h)	Cu 64
Cu 65	4.5991E+19								
Cu 66	9.7742E+08	4.0874E-07	1.8046E-04	2.3027E+04	2.2139E+06	5.9834E-05	3.5422E-02	5.100E+00 (m)	Cu 66
Zn 64	4.1936E+14								
Zn 65	3.7778E+08	1.1716E-12	3.5677E-05	9.1828E-01	1.2406E+01	3.3530E-10	4.8462E-05	2.443E+02 (d)	Zn 65
Zn 66	2.0635E+14								

here are 37 Nuclides.

Totals: 8.5366E+22 3.4397E-05 1.429920E+01 1.8365E+07 1.5698E+08 4.2428E-03 5.1408E+01

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

Elapsed Time : 2.95 (y) Cooling Time 0.

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.81582E+11
He	2.03985E+13
C	5.91877E+20
N	1.09091E+07
Mg	9.60337E-03
Al	2.95166E-09
Si	2.03985E+13
P	6.12023E+19
S	7.39000E+19
Cl	4.47966E+11
Ar	8.73483E+00
V	7.16549E+04
Cr	5.11765E+05
Mn	3.10547E+20
Fe	8.41797E+22
Co	5.29561E+14
Ni	6.60314E+14
Cu	1.49176E+20
Zn	6.25708E+14

Production of H : 0. appm/y.

Production of He : 0. appm/y.

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

At Cooling Time 0.

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0995E+05	1.9992E+06
2	(0.1 -> 0.2 MeV)	4.4961E+04	2.9007E+05
3	(0.2 -> 0.4 MeV)	5.8800E+03	1.9600E+04
4	(0.4 -> 0.6 MeV)	2.1173E+06	4.2347E+06
5	(0.6 -> 0.8 MeV)	1.3277E-02	1.8967E-02
6	(0.8 -> 1.0 MeV)	6.6393E+07	7.3769E+07
7	(1.0 ->1.22 MeV)	3.9706E+06	3.5771E+06
8	(1.22 ->1.44 MeV)	3.5543E+06	2.6724E+06
9	(1.44 ->1.66 MeV)	5.0153E+03	3.2357E+03
10	(1.66 -> 2.0 MeV)	3.9469E+07	2.1568E+07
11	(2.0 -> 2.5 MeV)	2.4023E+07	1.0677E+07
12	(2.5 -> 3.0 MeV)	4.2152E+06	1.5328E+06
13	(3.0 -> 4.0 MeV)	4.2281E+05	1.2080E+05
14	(4.0 -> 5.0 MeV)	3.1872E-02	7.0826E-03
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	7.0826E-03	1.2080E+05	1.5328E+06
1.0677E+07	2.1568E+07	2.6757E+06	3.5771E+06	7.3769E+07	1.8967E-02
4.2347E+06	9.8000E+03	9.8000E+03	2.9007E+05	9.9959E+05	9.9959E+05

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

At Cooling Time : 1.00 (s)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
H 1	4.8158E+11							
He 4	2.0399E+13							
C 12	5.8531E+20							
C 13	6.5698E+18							
Si 29	1.7138E+13							
Si 30	3.2606E+12							
P 31	6.1202E+19							
P 32	1.7154E+11	1.0743E-08	1.9096E-02	0.0000E+00	9.6507E+04	2.6083E-06	2.3143E-01	P 32
P 33	1.2454E+09	4.8259E-12	1.5277E-05	0.0000E+00	3.9341E+02	1.0633E-08	9.4344E-05	P 33
S 32	7.0220E+19							
S 33	5.5428E+17							
S 34	3.1112E+18							
S 35	5.9000E+10	4.2319E-11	4.6154E-04	0.0000E+00	5.4097E+03	1.4621E-07	4.1613E-03	S 35
S 36	1.4780E+16							
S 37	1.2233E+04	1.6923E-11	7.3102E-09	1.0568E+01	2.8320E+01	7.6541E-10	4.2459E-07	S 37
Cl 35	4.4531E+11							
Mn 55	3.1055E+20							
Mn 56	1.0621E+12	3.2068E-05	4.2953E-01	1.7135E+07	7.9295E+07	2.1431E-03	1.9824E+01	Mn 56
Fe 54	4.9245E+21							
Fe 55	7.1893E+15	5.4486E-08	6.7845E+00	1.2253E+04	5.7738E+07	1.5605E-03	1.9055E+01	Fe 55
Fe 56	7.7235E+22							
Fe 57	1.7848E+21							
Fe 58	2.3571E+20							
Fe 59	3.3506E+13	1.2650E-06	7.0160E+00	9.1285E+05	6.0411E+06	1.6327E-04	1.0865E+01	Fe 59
Co 59	5.2954E+14							
Co 60	2.2504E+10	3.9069E-11	9.3759E-03	2.9836E+01	9.3776E+01	2.5345E-09	3.1896E-04	Co 60
Co 60ml	2.8998E+05	3.2653E-12	2.9603E-09	2.8157E-01	3.1985E+02	8.6445E-09	5.4396E-07	Co 60ml
Ni 63	4.4030E+11	2.6826E-13	1.2089E-03	0.0000E+00	9.7703E+01	2.6406E-09	1.4648E-05	Ni 63
Ni 64	6.5987E+14							
Ni 65	1.1145E+05	1.6090E-12	2.1061E-08	5.9497E-01	8.5145E+00	2.3012E-10	1.5314E-06	Ni 65
Cu 63	1.0318E+20							
Cu 64	7.6440E+11	5.8714E-07	3.8735E-02	2.8056E+05	1.1587E+07	3.1316E-04	1.3910E+00	Cu 64
Cu 65	4.5991E+19							
Cu 66	9.7521E+08	4.0782E-07	1.8005E-04	2.2975E+04	2.2088E+06	5.9699E-05	3.5342E-02	Cu 66
Zn 64	4.1936E+14							
Zn 65	3.7778E+08	1.1716E-12	3.5677E-05	9.1828E-01	1.2406E+01	3.3530E-10	4.8462E-05	Zn 65
Zn 66	2.0635E+14							
1.0 (s)		3.4394E-05	1.429916E+01	1.8364E+07	1.5697E+08	4.2425E-03	5.1407E+01	

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

At Cooling Time : 1.00 (s)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	1.0995E+05	1.9992E+06
2	(0.1 -> 0.2 MeV)	4.4961E+04	2.9007E+05
3	(0.2 -> 0.4 MeV)	5.8800E+03	1.9600E+04
4	(0.4 -> 0.6 MeV)	2.1173E+06	4.2346E+06
5	(0.6 -> 0.8 MeV)	1.3276E-02	1.8966E-02
6	(0.8 -> 1.0 MeV)	6.6388E+07	7.3764E+07
7	(1.0 ->1.22 MeV)	3.9702E+06	3.5768E+06

8 (1.22 ->1.44 MeV)	3.5543E+06	2.6724E+06
9 (1.44 ->1.66 MeV)	5.0153E+03	3.2357E+03
10 (1.66 -> 2.0 MeV)	3.9466E+07	2.1566E+07
11 (2.0 -> 2.5 MeV)	2.4021E+07	1.0676E+07
12 (2.5 -> 3.0 MeV)	4.2148E+06	1.5327E+06
13 (3.0 -> 4.0 MeV)	4.2278E+05	1.2079E+05
14 (4.0 -> 5.0 MeV)	3.1798E-02	7.0662E-03
15 (5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	7.0662E-03	1.2079E+05	1.5327E+06
1.0676E+07	2.1566E+07	2.6757E+06	3.5768E+06	7.3764E+07	1.8966E-02
4.2346E+06	9.8000E+03	9.8000E+03	2.9007E+05	9.9959E+05	9.9959E+05

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

At Cooling Time : 16.67 (m)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
H 1	4.8158E+11							
He 4	2.0399E+13							
C 12	5.8531E+20							
C 13	6.5698E+18							
Si 29	1.7138E+13							
Si 30	3.2606E+12							
P 31	6.1202E+19							
P 32	1.7144E+11	1.0737E-08	1.9085E-02	0.0000E+00	9.6452E+04	2.6068E-06	2.3130E-01	P 32
P 33	1.2450E+09	4.8244E-12	1.5272E-05	0.0000E+00	3.9329E+02	1.0629E-08	9.4314E-05	P 33
S 32	7.0220E+19							
S 33	5.5428E+17							
S 34	3.1112E+18							
S 35	5.8994E+10	4.2315E-11	4.6150E-04	0.0000E+00	5.4092E+03	1.4619E-07	4.1609E-03	S 35
S 36	1.4780E+16							
S 37	1.2110E+03	1.6753E-12	7.2368E-10	1.0462E+00	2.8036E+00	7.5772E-11	4.2032E-08	S 37
Cl 35	4.4532E+11							
Mn 55	3.1055E+20							
Mn 56	9.8575E+11	2.9764E-05	3.9866E-01	1.5904E+07	7.3596E+07	1.9891E-03	1.8399E+01	Mn 56
Fe 54	4.9245E+21							
Fe 55	7.1893E+15	5.4486E-08	6.7844E+00	1.2252E+04	5.7737E+07	1.5605E-03	1.9055E+01	Fe 55
Fe 56	7.7235E+22							
Fe 57	1.7848E+21							
Fe 58	2.3571E+20							
Fe 59	3.3500E+13	1.2648E-06	7.0148E+00	9.1268E+05	6.0400E+06	1.6324E-04	1.0863E+01	Fe 59
Co 59	5.2954E+14							
Co 60	2.2504E+10	3.9069E-11	9.3759E-03	2.9836E+01	9.3776E+01	2.5345E-09	3.1897E-04	Co 60
Co 60m1	9.6343E+04	1.0848E-12	9.8354E-10	9.3548E-02	1.0627E+02	2.8721E-09	1.8073E-07	Co 60m1
Ni 63	4.4030E+11	2.6826E-13	1.2089E-03	0.0000E+00	9.7703E+01	2.6406E-09	1.4648E-05	Ni 63
Ni 64	6.5988E+14							
Ni 65	1.0326E+05	1.4908E-12	1.9513E-08	5.5125E-01	7.8888E+00	2.1321E-10	1.4189E-06	Ni 65
Cu 63	1.0318E+20							
Cu 64	7.5291E+11	5.7832E-07	3.8153E-02	2.7635E+05	1.1413E+07	3.0845E-04	1.3701E+00	Cu 64
Cu 65	4.5991E+19							
Cu 66	1.0149E+08	4.2440E-08	1.8737E-05	2.3909E+03	2.2986E+05	6.2126E-06	3.6778E-03	Cu 66
Zn 64	4.1936E+14							
Zn 65	3.7777E+08	1.1716E-12	3.5676E-05	9.1825E-01	1.2406E+01	3.3529E-10	4.8460E-05	Zn 65
Zn 66	2.0635E+14							
16.7 (m)		3.1714E-05	1.426622E+01	1.7107E+07	1.4912E+08	4.0302E-03	4.9927E+01	

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

At Cooling Time : 16.67 (m)

Energy distribution of decay gamma-rays

Group E_range	MeV/cm3*s	Photons/cm3*s
1 (10 -> 100 KeV)	1.0974E+05	1.9953E+06
2 (0.1 -> 0.2 MeV)	4.4953E+04	2.9002E+05
3 (0.2 -> 0.4 MeV)	5.8789E+03	1.9596E+04
4 (0.4 -> 0.6 MeV)	2.0855E+06	4.1710E+06
5 (0.6 -> 0.8 MeV)	1.2322E-02	1.7602E-02
6 (0.8 -> 1.0 MeV)	6.1614E+07	6.8460E+07
7 (1.0 ->1.22 MeV)	3.8148E+06	3.4368E+06
8 (1.22 ->1.44 MeV)	3.5442E+06	2.6648E+06
9 (1.44 ->1.66 MeV)	5.0142E+03	3.2349E+03
10 (1.66 -> 2.0 MeV)	3.6629E+07	2.0016E+07
11 (2.0 -> 2.5 MeV)	2.2295E+07	9.9089E+06
12 (2.5 -> 3.0 MeV)	3.9119E+06	1.4225E+06
13 (3.0 -> 4.0 MeV)	3.9232E+05	1.1209E+05
14 (4.0 -> 5.0 MeV)	3.1478E-03	6.9952E-04
15 (5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	6.9952E-04	1.1209E+05	1.4225E+06
9.9089E+06	2.0016E+07	2.6680E+06	3.4368E+06	6.8460E+07	1.7602E-02
4.1710E+06	9.7982E+03	9.7982E+03	2.9002E+05	9.9767E+05	9.9767E+05

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

At Cooling Time : 11.57 (d)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3	
H 1	4.8158E+11							
He 4	2.0399E+13							
C 12	5.8531E+20							
C 13	6.5698E+18							
Si 29	1.7138E+13							
Si 30	3.2606E+12							
P 31	6.1202E+19							
P 32	9.7729E+10	6.1208E-09	1.0879E-02	0.0000E+00	5.4982E+04	1.4860E-06	1.3185E-01	P 32
P 33	9.0804E+08	3.5187E-12	1.1139E-05	0.0000E+00	2.8685E+02	7.7527E-09	6.8789E-05	P 33
S 32	7.0220E+19							
S 33	5.5428E+17							
S 34	3.1112E+18							
S 35	5.3831E+10	3.8611E-11	4.2110E-04	0.0000E+00	4.9357E+03	1.3340E-07	3.7967E-03	S 35
S 36	1.4780E+16							
Cl 35	4.5048E+11							
Mn 55	3.1055E+20							
Fe 54	4.9245E+21							
Fe 55	7.1318E+15	5.4051E-08	6.7302E+00	1.2155E+04	5.7276E+07	1.5480E-03	1.8903E+01	Fe 55
Fe 56	7.7235E+22							
Fe 57	1.7848E+21							
Fe 58	2.3571E+20							
Fe 59	2.7978E+13	1.0563E-06	5.8585E+00	7.6225E+05	5.0444E+06	1.3634E-04	9.0727E+00	Fe 59
Co 59	5.3507E+14							
Co 60	2.2411E+10	3.8907E-11	9.3370E-03	2.9712E+01	9.3387E+01	2.5240E-09	3.1764E-04	Co 60
Ni 63	4.4020E+11	2.6820E-13	1.2086E-03	0.0000E+00	9.7681E+01	2.6400E-09	1.4645E-05	Ni 63
Ni 64	6.6034E+14							
Cu 63	1.0318E+20							
Cu 64	1.9966E+05	1.5336E-13	1.0117E-08	7.3282E-02	3.0265E+00	8.1796E-11	3.6332E-07	Cu 64
Cu 65	4.5991E+19							
Zn 64	4.1966E+14							
Zn 65	3.6557E+08	1.1338E-12	3.4524E-05	8.8861E-01	1.2005E+01	3.2447E-10	4.6896E-05	Zn 65
Zn 66	2.0635E+14							
11.6 (d)		1.1165E-06	1.261065E+01	7.7443E+05	6.2381E+07	1.6860E-03	2.8112E+01	

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

At Cooling Time : 11.57 (d)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	9.5226E+04	1.7314E+06
2	(0.1 -> 0.2 MeV)	3.7543E+04	2.4222E+05
3	(0.2 -> 0.4 MeV)	4.9098E+03	1.6366E+04
4	(0.4 -> 0.6 MeV)	7.2972E-01	1.4594E+00
5	(0.6 -> 0.8 MeV)	2.7754E-04	3.9649E-04
6	(0.8 -> 1.0 MeV)	5.8633E-03	6.5148E-03
7	(1.0 ->1.22 MeV)	3.1442E+06	2.8326E+06
8	(1.22 ->1.44 MeV)	2.8082E+06	2.1115E+06
9	(1.44 ->1.66 MeV)	4.1853E+03	2.7002E+03
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	2.1771E-03	9.6762E-04
12	(2.5 -> 3.0 MeV)	1.1700E-05	4.2546E-06
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	4.2546E-06
9.6762E-04	0.0000E+00	2.1142E+06	2.8326E+06	6.5148E-03	3.9649E-04
1.4594E+00	8.1830E+03	8.1830E+03	2.4222E+05	8.6569E+05	8.6569E+05

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3	ALI/cm3
H 1	4.8158E+11						
He 4	2.0399E+13						
C 12	5.8531E+20						
C 13	6.5698E+18						
Si 29	1.7138E+13						
Si 30	3.2606E+12						
P 31	6.1202E+19						
S 32	7.0220E+19						
S 33	5.5428E+17						
S 34	3.1112E+18						
S 36	1.4780E+16						
Cl 35	5.0431E+11						
Mn 55	3.1055E+20						

Fe 54	4.9245E+21							
Fe 55	2.3381E+12	1.7720E-11	2.2065E-03	3.9848E+00	1.8778E+04	5.0750E-07	6.1972E-03	Fe 55
Fe 56	7.7235E+22							
Fe 57	1.7848E+21							
Fe 58	2.3571E+20							
Co 59	5.6304E+14							
Co 60	3.4879E+08	6.0553E-13	1.4532E-04	4.6242E-01	1.4534E+00	3.9282E-11	4.9436E-06	Co 60
Ni 63	3.5268E+11	2.1487E-13	9.6833E-04	0.0000E+00	7.8260E+01	2.1151E-09	1.1733E-05	Ni 63
Ni 64	6.6034E+14							
Cu 63	1.0318E+20							
Cu 65	4.5991E+19							
Zn 64	4.1966E+14							
Zn 66	2.0635E+14							
31.7 (y)		1.8541E-11	3.320119E-03	4.4472E+00	1.8857E+04	5.0966E-07	6.2139E-03	

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

Energy distribution of decay gamma-rays

Group	E_range	MeV/cm3*s	Photons/cm3*s
1	(10 -> 100 KeV)	3.1209E+01	5.6743E+02
2	(0.1 -> 0.2 MeV)	0.0000E+00	0.0000E+00
3	(0.2 -> 0.4 MeV)	3.7432E-05	1.2477E-04
4	(0.4 -> 0.6 MeV)	0.0000E+00	0.0000E+00
5	(0.6 -> 0.8 MeV)	0.0000E+00	0.0000E+00
6	(0.8 -> 1.0 MeV)	9.1253E-05	1.0139E-04
7	(1.0 ->1.22 MeV)	1.7028E+00	1.5340E+00
8	(1.22 ->1.44 MeV)	1.9363E+00	1.4559E+00
9	(1.44 ->1.66 MeV)	0.0000E+00	0.0000E+00
10	(1.66 -> 2.0 MeV)	0.0000E+00	0.0000E+00
11	(2.0 -> 2.5 MeV)	3.3884E-05	1.5059E-05
12	(2.5 -> 3.0 MeV)	1.8210E-07	6.6217E-08
13	(3.0 -> 4.0 MeV)	0.0000E+00	0.0000E+00
14	(4.0 -> 5.0 MeV)	0.0000E+00	0.0000E+00
15	(5.0 -> 6.5 MeV)	0.0000E+00	0.0000E+00

18-Group gamma source distribution (Photons/cm3*s)
SCALE-ORNL 18-Group gamma Library from 10 MeV to 10 KeV

0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	6.6217E-08
1.5059E-05	0.0000E+00	1.4559E+00	1.5340E+00	1.0139E-04	0.0000E+00
0.0000E+00	6.2387E-05	6.2387E-05	0.0000E+00	2.8371E+02	2.8371E+02

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

At Cooling Time : 31.69 (y)

COMPOSITION :

ELEMENT	ATOMES/cm3
H	4.81582E+11
He	2.03985E+13
C	5.91877E+20
N	2.44663E+08
Mg	9.60337E-03
Al	0.00000E+00
Si	2.03985E+13
P	6.12023E+19
S	7.39000E+19
Cl	5.06965E+11
Ar	3.57600E+02
V	7.44116E+04
Cr	5.09008E+05
Mn	3.10554E+20
Fe	8.41797E+22
Co	5.63044E+14
Ni	6.60716E+14
Cu	1.49176E+20
Zn	6.26006E+14
Totals:	8.53664E+22

OVAC Reactor AJBRF Pneumatic Flux (Initial)
AJBRF Omaha Veterans Affairs Hospital.

Time	D(Sv/h)	Bq/g	Bq/cm3	Ci/m3	ALI/cm3	WATT/cm3	JOULE/cm3
zero	4.591E+00	1.995E+07	1.570E+08	4.243E+03	5.141E+01	3.440E-05	1.429920E+01
1.0 (s)	4.591E+00	1.995E+07	1.570E+08	4.242E+03	5.141E+01	3.439E-05	1.429916E+01
16.7 (m)	4.277E+00	1.895E+07	1.491E+08	4.030E+03	4.993E+01	3.171E-05	1.426622E+01
11.6 (d)	1.936E-01	7.926E+06	6.238E+07	1.686E+03	2.811E+01	1.117E-06	1.261065E+01
31.7 (y)	1.112E-06	2.396E+03	1.886E+04	5.097E-01	6.214E-03	1.854E-11	3.320119E-03

OVAC Reactor AJBRF Pneumatic Flux (Initial)
AJBRF Omaha Veterans Affairs Hospital.

For a volume of 1.0000E+00(cm3) of Carbon Steel :

Time	Becquerel	Sv/h	ALI	Watt

zero	1.570E+08	4.591E+00	5.141E+01	3.440E-05
1.0 (s)	1.570E+08	4.591E+00	5.141E+01	3.439E-05
16.7 (m)	1.491E+08	4.277E+00	4.993E+01	3.171E-05
11.6 (d)	6.238E+07	1.936E-01	2.811E+01	1.117E-06
31.7 (y)	1.886E+04	1.112E-06	6.214E-03	1.854E-11

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

AJBRF Pneumatic Flux (Initial)

Time	Bq/Kg	KW/Kg	Ci/Kg	MeV/g*s
zero	1.995E+10	4.371E-06	5.391E-01	1.837E+07
1.0 (s)	1.995E+10	4.370E-06	5.391E-01	1.836E+07
16.7 (m)	1.895E+10	4.030E-06	5.121E-01	1.711E+07
11.6 (d)	7.926E+09	1.419E-07	2.142E-01	7.744E+05
31.7 (y)	2.396E+06	2.356E-12	6.476E-05	4.447E+00

OVAC Reactor
AJBRF Omaha Veterans Affairs Hospital.

AJBRF Pneumatic Flux (Initial)

Time	Bq/g	Sv/h	W/g	Cl Index
zero	1.995E+07	4.591E+00	4.371E-06	1.879E+07
1.0 (s)	1.995E+07	4.591E+00	4.370E-06	1.878E+07
16.7 (m)	1.895E+07	4.277E+00	4.030E-06	1.744E+07
11.6 (d)	7.926E+06	1.936E-01	1.419E-07	2.380E+05
31.7 (y)	2.396E+03	1.112E-06	2.356E-12	8.572E+00

The Library *FENDL/D-2 Decay&ICRP72 Hazard Data + Clearance 2000

we hope that all was O.K.!

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Attachment M: Radionuclides Summary for Long Term Activation and Decay

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Soil Short Term						
Na24	1820400	1.75E-11	1.36E-06	37.10	23.393	6.32E-10
K40	1.21E+17	2.26E-13	13199	0.125	2.0823	5.63E-11
K42	134750	5.76E-13	3.7E-08	0.2390	2.0967	5.67E-11
Total		1.83E-11	13198.57	37.47	27.572	7.45E-10
Soil Long Term 1 sec.						
Na 24	7.65E+07	7.37E-10	5.73E-05	1.56E+0	9.83E+02	2.66E-08
Na 24ml	2.16E+01	5.75E-11	1.68E-12	1.34E+0	7.42E+02	2.01E-08
Mg 27	3.09E+03	9.64E-13	7.90E-10	1.29E+0	3.78E+00	1.02E-10
Al 28	1.56E+05	3.90E-10	7.56E-08	5.52E+0	8.06E+02	2.18E-08
Si 31	1.13E+07	7.89E-11	1.07E-06	2.86E-0	8.27E+02	2.23E-08
Ar 37	1.12E+07	1.10E-15	4.81E-09	3.19E-0	2.57E+00	6.94E-11
K 40	1.21E+17	2.26E-13	1.32E+04	1.26E-0	2.08E+00	5.63E-11
K 42	9.96E+06	4.25E-11	2.73E-06	1.77E+0	1.55E+02	4.19E-09
Ca 45	4.44E+08	2.71E-13	5.50E-06	0.00E+0	2.19E+01	5.92E-10
Ca 49	1.59E+03	1.37E-12	1.03E-09	2.57E+0	2.11E+00	5.71E-11
Sc 49	1.05E+04	2.77E-13	1.37E-09	8.12E-0	2.11E+00	5.71E-11
Fe 55	8.45E+09	6.41E-14	7.98E-06	4.36E-0	6.79E+01	1.83E-09
Fe 59	3.94E+07	1.49E-12	8.25E-06	3.25E+0	7.10E+00	1.92E-10
Soil Long Term 16.7 sec.						
Na 24	7.55E+07	7.27E-10	5.66E-05	1.54E+0	9.71E+02	2.62E-08
Mg 27	9.13E+02	2.84E-13	2.33E-10	3.82E-0	1.11E+00	3.01E-11
Al 28	9.02E+02	2.25E-12	4.36E-10	3.19E+0	4.65E+00	1.26E-10
Si 31	1.05E+07	7.33E-11	9.98E-07	2.66E-0	7.68E+02	2.08E-08
Ar 37	1.12E+07	1.10E-15	4.81E-09	3.19E-0	2.57E+00	6.93E-11
K 40	1.21E+17	2.26E-13	1.32E+04	1.26E-0	2.08E+00	5.63E-11
K 42	9.81E+06	4.19E-11	2.69E-06	1.74E+0	1.53E+02	4.12E-09
Ca 45	4.44E+08	2.71E-13	5.50E-06	0.00E+0	2.19E+01	5.92E-10
Ca 49	4.24E+02	3.63E-13	2.74E-10	6.84E-0	5.61E-01	1.52E-11
Sc 49	9.58E+03	2.54E-13	1.26E-09	7.44E-0	1.93E+00	5.23E-11
Fe 55	8.45E+09	6.41E-14	7.98E-06	4.36E-0	6.79E+01	1.83E-09
Fe 59	3.94E+07	1.49E-12	8.25E-06	3.25E+0	7.10E+00	1.92E-10
Total		8.48E-10	1.32E+04	1.57E+0	2.00E+03	5.41E-08
Soil Long Term 11.6 d						
Ar 37	8.91E+06	8.76E-16	3.83E-09	2.54E-0	2.04E+00	5.52E-11
K 40	1.21E+17	2.26E-13	1.32E+04	1.26E-0	2.08E+00	5.63E-11
Ca 45	4.23E+08	2.58E-13	5.23E-06	0.00E+0	2.09E+01	5.64E-10
Fe 55	8.39E+09	6.36E-14	7.91E-06	4.33E-0	6.73E+01	1.82E-09
Fe 59	3.29E+07	1.24E-12	6.89E-06	2.71E+0	5.93E+00	1.60E-10
Total		1.79E-12	1.32E+04	2.88E+0	9.83E+01	2.66E-09
Soil Long Term 31.7 y						
K 40	1.21E+17	2.26E-13	1.32E+04	1.26E-0	2.08E+00	5.63E-11
Total		2.26E-13	1.32E+04	1.26E-0	2.08E+00	5.63E-11
Concrete Long Term 1 sec						
Na 24	4.33E+05	4.17E-12	3.24E-07	9.77E+0	5.56E+00	1.50E-10
Al 28	3.65E+05	9.10E-10	1.76E-07	1.43E+0	1.88E+03	5.08E-08

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
P 33	1.11E+06	4.31E-15	1.37E-08	0.00E+0	3.52E-01	9.51E-12
S 35	5.27E+07	3.78E-14	4.13E-07	0.00E+0	4.84E+00	1.31E-10
Ar 37	1.61E+08	1.58E-14	6.92E-08	5.08E-0	3.69E+01	9.97E-10
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-0	2.73E+00	7.36E-11
K 42	1.30E+07	5.57E-11	3.58E-06	2.56E+0	2.03E+02	5.48E-09
Ca 41	7.63E+11	8.56E-17	4.01E-04	3.03E-0	1.63E-01	4.40E-12
Ca 45	6.39E+09	3.90E-12	7.91E-05	0.00E+0	3.15E+02	8.52E-09
Ca 47	2.62E+05	1.04E-13	5.89E-08	2.09E-0	4.63E-01	1.25E-11
Ca 49	2.29E+04	1.96E-11	1.48E-08	4.09E+0	3.03E+01	8.20E-10
Sc 47	1.93E+05	2.01E-14	8.38E-09	2.14E-0	4.63E-01	1.25E-11
Sc 49	1.50E+05	3.98E-12	1.97E-08	1.29E-0	3.04E+01	8.21E-10
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-1	3.28E-11	8.86E-22
V 52	9.24E+01	1.15E-13	3.72E-11	1.76E-0	2.85E-01	7.70E-12
Mn 56	7.78E+04	2.35E-12	3.14E-08	4.20E+0	5.81E+00	1.57E-10
Fe 55	1.47E+10	1.12E-13	1.39E-05	8.41E-0	1.18E+02	3.20E-09
Fe 59	6.86E+07	2.59E-12	1.44E-05	6.26E+0	1.24E+01	3.35E-10
Co 60	9.49E+07	1.65E-13	3.95E-05	4.21E-0	3.95E-01	1.07E-11
Co 60ml	6.23E+02	7.02E-15	6.36E-12	2.03E-0	6.88E-01	1.86E-11
As 76	1.10E+05	1.93E-13	2.64E-08	1.49E-0	8.06E-01	2.18E-11
Br 80	4.37E+02	3.68E-14	5.61E-11	9.41E-0	2.87E-01	7.76E-12
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+0	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+0	5.85E-05	1.58E-15
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+0	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+0	2.86E-09	7.72E-20
Sm153	4.05E+05	8.86E-14	2.15E-08	4.40E-0	1.67E+00	4.51E-11
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-0	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-0	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-0	5.80E-03	1.57E-13
U239	7.48E+02	2.72E-14	5.53E-11	8.08E-0	3.68E-01	9.95E-12
Np239	1.08E+05	2.63E-14	7.71E-09	2.86E-0	3.68E-01	9.95E-12
Total		1.00E-09	1.85E+04	1.51E+0	2.65E+03	7.17E-08
Concrete Long Term 16.7 m						
Na 24	4.28E+05	4.12E-12	3.20E-07	9.64E+0	5.49E+00	1.48E-10
Al 28	2.12E+03	5.28E-12	1.02E-09	8.27E+0	1.09E+01	2.95E-10
P 33	1.11E+06	4.31E-15	1.37E-08	0.00E+0	3.52E-01	9.50E-12
S35	5.27E+07	3.78E-14	4.13E-07	0.00E+0	4.84E+00	1.31E-10
Ar 37	1.61E+08	1.58E-14	6.91E-08	5.08E-0	3.69E+01	9.97E-10
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-0	2.73E+00	7.36E-11
K 42	1.28E+07	5.48E-11	3.52E-06	2.52E+0	2.00E+02	5.40E-09
Ca 41	7.63E+11	8.56E-17	4.01E-04	3.03E-0	1.63E-01	4.40E-12
Ca 45	6.39E+09	3.90E-12	7.90E-05	0.00E+0	3.15E+02	8.52E-09
Ca 47	2.61E+05	1.04E-13	5.88E-08	2.08E-0	4.62E-01	1.25E-11
Ca 49	6.09E+03	5.22E-12	3.94E-09	1.09E+0	8.07E+00	2.18E-10
Sc 47	1.93E+05	2.01E-14	8.38E-09	2.14E-0	4.63E-01	1.25E-11
Sc 49	1.38E+05	3.65E-12	1.81E-08	1.18E-0	2.78E+01	7.52E-10
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-1	3.28E-11	8.86E-22

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Mn 56	7.22E+04	2.18E-12	2.92E-08	3.90E+0	5.39E+00	1.46E-10
Fe 55	1.47E+10	1.12E-13	1.39E-05	8.41E-0	1.18E+02	3.20E-09
Fe 59	6.86E+07	2.59E-12	1.44E-05	6.26E+0	1.24E+01	3.34E-10
Co 60	9.49E+07	1.65E-13	3.95E-05	4.21E-0	3.95E-01	1.07E-11
As 76	1.09E+05	1.92E-13	2.62E-08	1.48E-0	8.01E-01	2.16E-11
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+0	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+0	5.85E-05	1.58E-15
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+0	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+0	2.86E-09	7.72E-20
Sm153	4.03E+05	8.82E-14	2.14E-08	4.38E-0	1.66E+00	4.49E-11
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-0	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-0	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-0	5.80E-03	1.57E-13
Np239	1.08E+05	2.62E-14	7.70E-09	2.85E-0	3.68E-01	9.95E-12
Total		8.2803E-11 1	8.48E+03	6.53E+0	7.52E+02	2.03E-08
Concrete Long Term 11.6 d						
P 33	8.12E+05	3.15E-15	9.96E-09	0.00E+0	2.56E-01	6.93E-12
S 35	4.81E+07	3.45E-14	3.76E-07	0.00E+0	4.41E+00	1.19E-10
Ar 37	1.28E+08	1.26E-14	5.50E-08	4.04E-0	2.93E+01	7.93E-10
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-0	2.73E+00	7.36E-11
Ca 41	7.63E+11	8.56E-17	4.01E-04	3.03E-0	1.63E-01	4.40E-12
Ca 45	6.08E+09	3.71E-12	7.52E-05	0.00E+0	3.00E+02	8.11E-09
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-1	3.28E-11	8.86E-22
Fe 55	1.46E+10	1.11E-13	1.38E-05	8.34E-0	1.17E+02	3.17E-09
Fe 59	5.73E+07	2.16E-12	1.20E-05	5.23E+0	1.03E+01	2.79E-10
Co 60	9.45E+07	1.64E-13	3.94E-05	4.19E-0	3.94E-01	1.06E-11
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+0	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+0	5.85E-05	1.58E-15
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+0	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+0	2.86E-09	7.72E-20
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-0	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-0	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-0	5.80E-03	1.57E-13
Total		6.5050E-12 1	8.48E+03	5.92E+0	4.65E+02	1.26E-08
Concrete Long Term 31.7 y						
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-0	2.73E+00	7.36E-11
Ca 41	7.63E+11	8.55E-17	4.01E-04	3.03E-0	1.63E-01	4.40E-12
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-1	3.28E-11	8.86E-22
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+0	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+0	5.85E-05	1.58E-15
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+0	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+0	2.86E-09	7.72E-20
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-0	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-0	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-0	5.80E-03	1.57E-13
Total		3.0527E-13 1	8.48E+03	1.82E-0	2.90E+00	7.85E-11

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Concrete 338.6 d						
K 40	1.59E+17	2.96E-13	1.73E+04	1.82E-0	2.73E+00	7.36E-11
Ca 45	1.62E+08	9.88E-14	2.00E-06	0.00E+0	7.99E+00	2.16E-10
V 50	2.22E+14	5.73E-24	3.88E+01	1.52E-1	3.28E-11	8.86E-22
Fe 55	4.00E+08	3.03E-15	3.78E-07	2.29E-0	3.22E+00	8.69E-11
Rb 87	8.29E+15	4.79E-17	1.05E+02	0.00E+0	3.80E-03	1.03E-13
Sm147	2.82E+14	2.15E-17	1.04E+02	0.00E+0	5.85E-05	1.58E-15
Sm148	2.12E+14	2.12E-22	6.73E+01	0.00E+0	6.67E-10	1.80E-20
Sm149	2.60E+14	8.42E-22	7.67E+01	0.00E+0	2.86E-09	7.72E-20
U234	6.54E+10	4.55E-15	5.09E-02	3.61E-0	5.85E-03	1.58E-13
U235	8.56E+12	2.00E-16	6.42E+00	1.91E-0	2.67E-04	7.22E-15
U238	1.18E+15	3.97E-15	8.08E+02	3.10E-0	5.80E-03	1.57E-13
Total		4.0702E-13 1	8.48E+03	1.85E-0	1.39E+01	3.77E-10
Rebar Long Term 1 sec						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-0	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-1	7.03E-11	1.90E-21
Cr 51	1.66E+08	2.83E-13	9.76E-07	1.97E-0	4.82E+01	1.30E-09
Cr 55	2.46E+02	1.42E-13	4.35E-11	4.25E-0	8.04E-01	2.17E-11
Mn 56	2.00E+08	6.03E-09	8.08E-05	3.16E+0	1.49E+04	4.03E-07
Fe 55	5.12E+11	3.88E-12	4.83E-04	8.55E-0	4.11E+03	1.11E-07
Fe 59	2.38E+09	9.00E-11	4.99E-04	6.37E+0	4.30E+02	1.16E-08
Co 60	5.56E+08	9.66E-13	2.32E-04	7.23E-0	2.32E+00	6.27E-11
Co 60ml	3.66E+03	4.12E-14	3.73E-11	3.48E-0	4.03E+00	1.09E-10
Cu 64	8.21E+05	6.30E-13	4.16E-08	2.95E-0	1.24E+01	3.36E-10
Cu 66	1.05E+03	4.38E-13	1.93E-10	2.42E-0	2.37E+00	6.41E-11
As 76	8.10E+05	1.42E-12	1.94E-07	3.20E-0	5.92E+00	1.60E-10
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+0	1.44E-03	3.90E-14
Ag110	4.67E+01	2.54E-13	9.05E-12	5.67E-0	1.31E+00	3.54E-11
Sb122	8.44E+05	4.03E-13	1.36E-07	1.37E-0	2.51E+00	6.79E-11
Sb124	8.67E+06	4.15E-13	3.12E-06	2.68E-0	1.15E+00	3.12E-11
Total		6.1317E-09 1	2.37E+01	3.23E+0	1.95E+04	5.28E-07
Rebar Long Term 11.6 d						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-0	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-1	7.03E-11	1.90E-21
Cr 51	1.25E+08	2.12E-13	7.31E-07	1.47E-0	3.61E+01	9.75E-10
Fe 55	5.08E+11	3.85E-12	4.79E-04	8.48E-0	4.08E+03	1.10E-07
Fe 59	1.99E+09	7.52E-11	4.17E-04	5.32E+0	3.59E+02	9.70E-09
Co 60	5.54E+08	9.62E-13	2.31E-04	7.20E-0	2.31E+00	6.24E-11
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+0	1.44E-03	3.90E-14
Sb124	7.59E+06	3.63E-13	2.73E-06	2.34E-0	1.01E+00	2.73E-11
Total		8.06E-11	1.24E+02	5.51E+0	4.48E+03	1.21E-07
Rebar Long Term 31.7 y						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-0	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-1	7.03E-11	1.90E-21
Fe 55	1.66E+08	1.26E-15	1.57E-07	2.78E-0	1.34E+00	3.61E-11
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+0	1.44E-03	3.90E-14

Attachment M: Radionuclides Summary for Long Term Activation and Decay

Nuclide	N/cm3	WATT/cm3	JOULE/cm3	G(MeV/g*s)	Bq/cm3	Ci/cm3
Total		1.2902E-15 1	2.37E+01	2.80E-0	1.34E+00	3.62E-11
Rebar 26.68 d						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-0	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-1	7.03E-11	1.90E-21
Cr 51	8.04E+07	1.36E-13	4.71E-07	9.49E-0	2.33E+01	6.29E-10
Cr 55	2.47E+02	1.42E-13	4.36E-11	4.26E-0	8.07E-01	2.18E-11
Mn 56	2.00E+08	6.03E-09	8.08E-05	3.16E+0	1.49E+04	4.03E-07
Fe 55	1.76E+10	1.33E-13	1.66E-05	2.94E-0	1.41E+02	3.82E-09
Fe 59	8.03E+08	3.03E-11	1.68E-04	2.14E+0	1.45E+02	3.91E-09
Co 60m1	3.66E+03	4.12E-14	3.74E-11	3.48E-0	4.04E+00	1.09E-10
Cu 64	8.21E+05	6.30E-13	4.16E-08	2.95E-0	1.24E+01	3.36E-10
Cu 66	1.05E+03	4.39E-13	1.94E-10	2.42E-0	2.38E+00	6.42E-11
As 76	8.10E+05	1.42E-12	1.94E-07	3.20E-0	5.92E+00	1.60E-10
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+0	1.44E-03	3.90E-14
Ag110	4.80E+01	2.61E-13	9.30E-12	5.83E-0	1.35E+00	3.64E-11
Sb122	8.43E+05	4.03E-13	1.35E-07	1.37E-0	2.51E+00	6.78E-11
Total	8.58E+22	6.0671E-09 1	2.37E+01	3.18E+0	1.53E+04	4.12E-07
Rebar 338.6 d						
K 40	5.79E+12	1.08E-17	6.30E-01	1.94E-0	9.93E-05	2.68E-15
V 50	4.77E+14	1.23E-23	8.33E+01	9.53E-1	7.03E-11	1.90E-21
Fe 55	1.39E+10	1.05E-13	1.31E-05	2.32E-0	1.12E+02	3.02E-09
Rb 87	3.15E+15	1.82E-17	3.97E+01	0.00E+0	1.44E-03	3.90E-14
Total		1.0545E-13 1	2.37E+01	2.32E-0	1.12E+02	3.02E-09
Aluminum 31.7 y						
Fe 55	2.06E+09	1.56E-14	1.94E-06	1.02E-0	1.65E+01	4.47E-10
Ni 63	6.07E+10	3.70E-14	1.67E-04	0.00E+0	1.35E+01	3.64E-10
Total		5.26E-14	1.69E-04	1.02E-0	3.00E+01	8.11E-10
Epoxy 31.7 y						
Cl 36	6.06E+12	1.93E-14	2.66E-01	9.49E-0	4.41E-01	1.19E-11
Total	6.06E+12	1.93E-14	2.66E-01	9.49E-0	4.41E-01	1.19E-11
Graphite 31.7 y						
C 14	1.50E+13	4.57E-13	1.19E-01	0.00E+0	5.77E+01	1.56E-09
Total		4.57E-13	1.19E-01	0.00E+0	5.77E+01	1.56E-09