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REV A

FORT ST. VRAIN ACTIVATION ANALYSIS

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I. INTRODUCTION

This report summarizes the results of the activation analysis performed for the Fort St. Vrain (FSV) Pre-stressed Concrete Reactor Vessel (PCRV) and internals. This analysis determined the isotopic composition, magnitude and extent of residual radioactivity in the PCRV and internals which would be present after operation through Cycle 4 and a 170 Effective Full Power Days (EFPD) coastdown period. The information provided in this report is for use in decommissioning planning activities. The results presented in this report include dose rates inside the PCRV at various times after shutdown, dose rates of individual components and the curie inventory for individual components and for the overall PCRV.

II. BACKGROUND

The FSV generating station is scheduled to cease operations on or before June of 1990. The reactor core will be defueled in the next ~2.6 years by replacing the fuel elements with boronated defueling blocks. Five of the six fuel segments will be shipped to Idaho National Engineering Laboratory (INEL) for disposal. Current plans are to store the remaining segment of fuel on site in an Independent Spent Fuel Storage Installation (ISFSI).

In order to accurately plan activities for decommissioning, an estimate of the extent and isotopic composition of any residual radioactivity must be predicted. In early 1988, Public Service Company enlisted the services of Ebasco's Advanced Technology Group to develop a computer model for the FSV reactor and train PSC personnel on model development and the use of all computer codes associated with the activation analysis.

The necessary computer codes were installed on PSC's IBM mainframe by PSC personnel. PSC personnel worked with Ebasco in the development of the models used to analyze the PCRV. Additionally, Ebasco gave several training sessions covering the topics listed in Table 1.

III. ANALYSIS METHODOLOGY

III.A. Code Descriptions

The computer codes installed on the IBM 3090 included transport, activation, and radiation shielding codes. In addition to these codes, several utility codes to handle data sets and output were developed by PSC personnel. Table 2 lists the computer codes and data libraries that were installed on the IBM mainframe.

ANISN and DOT are multi-group, one- and two- dimensional discrete ordinates computer codes with anisotropic scattering. REBATE is an activation code for the calculation of activation product production rates for one- or two- dimensional multigroup neutron flux distributions. ORIGEN is an isotope generation and depletion code which calculates the buildup, decay and processing of radioactive materials using only a single point thermal neutron flux input and spectrum modifiers to account for the higher energy flux distribution. ISOSHLD is a point kernel integration code which performs gamma ray shielding calculations for radioactive sources in a wide variety of source and shield configurations. Volume 1 of Appendix A includes user's manuals, sample problems and installation problems/comments pertaining to PSC's IBM version of the codes.

Four utility codes were developed by PSC for data handling. SITEREB processed REBATE output into a format which provided the isotopic inventory of the activation products for each component. SRCEDOS1 also processes REBATE output to develop the gamma source input for ANISN. SRCEDOS2 reads ANISN output and calculates dose rates within the PCRV. POSTREB processes the REBATE output to a more readable format.

III.B. Calculational Sequence

The analysis was divided into three models: Radial, Axial Up and Axial Down. The calculation sequence was similar for all three models.

The calculational sequence involved the use of the ANISN, REBATE, SITEREB, SRCEDOS1 and SRCEDOS2 codes. Figure 1 shows a flow chart for the activation analysis process. Volume 2 of Appendix A details the analysis steps and computer files used.

The first step in the calculational sequence was to determine the neutron flux throughout the reactor core and the PCRV. The BUGLE-80 cross section data library was collapsed to 16 group cross sections using the COMMAND code. These 16 group cross sections were used as input to ANISN. Neutron fluxes taken from the GATT fuel accountability were used in setting the proper neutron source input to ANISN (Ref 1) The spatial neutron flux in the reactor through the 1014 GATT regions, over six layers were searched for the blocks on the edge of the core with the highest flux. A radial traverse from core center line to the maximum flux block was used to set fuel nuclide number densities to the radial ANISN model. This same method was used to determine the fuel number density inputs to ANISN for the axial up and axial down analyses.

The 16 group neutron fluxes were normalized to match the 4 group GATT fluxes. This was accomplished by collapsing the ANISN flux output to 4 groups for comparison with the GATT results. The group structure of the neutron source ANISN input was then redefined (if necessary) and the process repeated until the GATT and ANISN (4 group) fluxes were within a factor of 2. Figure 2 shows the agreement between fluxes for the radial case. The flux ratio for the axial cases are shown in Figures 3 and 4.

The final 1-D neutron flux for all three cases are shown in Figures 5 through 7. Further details of the ANISN neutron flux calculations can be found in Volume 2, Section 1 of Appendix A.

The second step in the analysis was to determine the activation of the selected PCRV components due to the neutron flux previously calculated. The activation of PCRV internal components and concrete were calculated with the REBATE code and some auxiliary utility routines. The input to REBATE included the neutron fluxes from ANISN, material number densities of the components, power history of the reactor and geometry of the components. The details of the REBATE model are discussed in Volume 2 of Appendix A.

The material number densities for the components are discussed in Section III.D of this report.

The actual and projected power history of the reactor was used to determine the input neutron flux pulse. A 70% power pulse was input for a time equivalent to operation through Cycle 4 and a 170 EFPD coastdown.

The total curies of each component were calculated from the REBATE output using the SITEREB post processing utility code. This code processed the REBATE output to determine the activity for each component as a function of time.

The third portion of the analysis included the computation of dose rates inside the PCRV. The REBATE gamma flux output was processed with the SRCEDOS1 code to an acceptable format for the ANISN gamma ray transport calculation. This calculation required the use of the ANISN code for the determination of the spatial gamma ray flux resulting from the radioactive decay of the activation products in the various components left within the confines of the PCRV. The SRCEDOS2 code transformed the 11 group gamma ray fluxes as a function of space into radiation dose rates within the PCRV.

The component curie content due to activation and plateout (Ref. 2) were used to determine the dose rate of individual components. The ISOSHLD code was used to determine these dose rates.

The TSO data sets used in the activation analysis and some users notes are included in Attachment 1.

III.C. COMPUTATIONAL MODELS

The analysis was performed using three 1-D models: radial, axial up and axial down. The radial neutron flux model extended from the fuel outward through the PCRV concrete. The axial up and axial down neutron flux models contained components from the fuel through the top head and from the fuel through the core support floor, respectively. The neutron activation models assumed that all fuel and removable reflectors had been removed from the PCRV and that air had replaced the helium within the PCRV. Volume 2 of Appendix A details each model, input variables and assumptions used in the analysis. The major components modeled for the activation analyses in all three directions were:

<u>Radial</u>

Removable Reflector
Permanent Reflector
Spacer Blocks
Core Barrel
(Helium Plenum)
Cover Plate/Insulation
PCRV Liner/Cooling Tubes
PCRV Concrete/Rebar
Reflector Keys

Axial Up

Metal Clad Blocks
Region Constraint Devices
Lower Orifice Valve Assembly
(Helium Plenum)
Cover Plates/Kaowool
PCRV Liner/Cooling Tubes
Top Head Concrete/Rebar

Axial Down

Bottom Removable Reflectors
Core Support Blocks
(Helium Plenum)
Silica Blocks
Cover Plate/Insulation
CSF Liner/Cooling Tubes
CSF Concrete/Rebar

III.C.1 Radial Model

The radial model consists of eight basic components. The removable hexagonal graphite side reflectors are located just outside the fuel (See Figure 8). These reflectors were modeled in the neutron flux calculations, but not in the activation calculations since they will be removed during the defueling process. Beyond the hexagonal removable reflectors are the large permanent side reflectors. These large reflectors are made of HLM graphite. The permanent hexagonal reflectors were modeled with the large reflectors. Between the large reflectors and the core barrel are graphite spacer blocks. These blocks contain boronated stainless steel rods. The number of rods vary with core location of the spacer blocks. The core barrel is constructed of 3 sections varying in thickness from 2.25" to 2.75". The core barrel was modeled in two sections because the upper 12 feet is constructed of slightly different material than the bottom two sections. Next in the radial model is the Class A kaowool insulation and the cover plates (Figure 9). These two components were modeled separately, but for dose rate/activation purposes they were considered to be homogeneous since they are constructed in layers and will be dismantled simultaneously. The PCRV liner model contains the cooling tubes. The PCRV concrete is modeled as a homogeneous mixture of concrete and rebar. Two final components modeled were the core barrel keys which connect the core barrel to the large side reflectors and the metal shell for the top most large side reflectors. Due to the location of these components (in the "corner" of the reactor) different assumptions on the neutron flux were made for these components. Volume 2 of Appendix A details these assumptions.

III.C.2 Axial Up Model

The axial up model included six basic components. The metal clad blocks (MCB), Figures 10 and 11, were analyzed as 3 different sub-components: the central column, side reflector with coolant holes and side reflector without coolant holes. The central column MCBs are constructed of stainless steel while both side reflectors are constructed of carbon steel. The region constraint devices (RCD), Figure 12, were broken up into two sub-components: the primary body (carbon steel) and the legs (inconel). The orifice valve lower, Figure 13, assembly was included in the model. The three previous components are considered to be removable. A helium plenum channel was modeled above these removable components. Three permanent components were used to model the top head: coverplate/kaowool, PCRV liner/cooling tubes and PCRV concrete/rebar. These components were modeled in the same fashion as in the radial model.

III.C.3 Axial Down Model

The axial down 1-D analysis modeled five components. The bottom removable reflector elements were modeled including the Hastelloy-X cans contained in the reflectors located just above the transition elements. Due to the geometry in the helium/core support post plenum (See Figure 14), the presence of carbon was ignored in the outlet plenum. The CSF is covered with cover plates/kaowool and silica blocks. Three layers of Class C silica insulation (blocks) are located above the coverplate/kaowool which are just above the CSF liner (See Figure 15). Only the CSF liner on the top of the CSF was modeled. the CSF liner and CSF concrete/rebar were modeled in the same fashion as before.

III.D Material Compositions

The material compositions of the components were taken from a variety of sources. In most cases the material composition and densities were taken from component drawings which the referenced standard specification (AISI, ASTM, ASME, etc.). Information on the trace element material composition of reactor components was difficult to obtain. Reference 2 was used in the assumptions of trace elements. Hand calculations for material compositions, document references and volume calculations are located in Attachment 2. The material composition data base included in Appendix B.

In general, the reactor internals are made of carbon steel and graphite. Very few components are composed of stainless steel. The presence of trace elements such as cobalt, niobium and europium in steels and concrete could have a large effect on long term dose rate of PCRV components. Assumptions for these and other trace elements in various materials are discussed below.

Stainless Steels

Reference 2 indicated from LWR samples that in stainless steel components the Co-60 ranges widely, more than an order of magnitude. Nb-94 samples also had a wide variability, but the average concentration was an order of magnitude below that of Co-60. For this analysis it was assumed that any stainless steel component had a cobalt concentration of 0.2%. This assumption was based on information from previous activation studies (Ref. 3). The two components modeled that were constructed of stainless steel were the center column metal clad blocks and the boronated rods in the spacer blocks. In each case the cobalt level was assumed to be 0.2%. A comparison of this value (Attachment 3) was made with sample data from Reference 2. NUREG/CR3474 showed that the cobalt range for type 304 stainless steel ranged from 229 to 2570 ppm with an average of 1414 ppm. The 0.2% cobalt value in the analysis equated to approximately 2000 ppm. Therefore, the assumption of 0.2% cobalt for stainless steel was assumed adequate.

The niobium level in stainless steel was specified for the metal clad blocks in the material standard. The niobium level for the boronated rods in the spacer blocks as not listed in the material specification and was assumed to be negligible. Since NUREG/CR3474 indicated the possibility of high levels of niobium in stainless steel a separate analysis was performed to verify this assumption. The average niobium concentration specified in NUREG/CR3474 was used as the concentration level. The analysis showed (See Attachment 4) that at 5 years after shutdown the curie concentration of Nb-94 was six orders of magnitude less than Co-60, and 3 orders of magnitude less at 60 years. Europium was not included as a trace element in the stainless steel because NUREG/CR3474 indicated that its presence in stainless steels was very low.

Inconel

The pins on the region constraint devices were the only components modeled that were constructed of inconel. Both the cobalt (1.0%) and niobium (5.13%) levels were specified in the ASME material standard and used in the analysis.

Carbon Steels

The cobalt level in carbon steels was assumed to be 0.02% (Ref 3). Similar comparisons as performed with the stainless steel were performed (Attachment 3). In carbon steels the cobalt range was for 93 to 151 ppm with an average of 122 ppm. The analysis for the PCRV liner and core barrel used approximately 200 ppm. Therefore, the assumptions of 0.02% cobalt for carbon steel was conservative. Niobium and Europium traces were considered negligible for carbon steel.

Concrete

The major material constituents for the concrete and rebar were taken from FSAR values. Since no sample data was available to determine trace element abundancies, average values from NUREG/CR3474 sample values were used. Europium was included as a trace element in the concrete with a 0.55 ppm abundancy.

Graphite

Activation of graphite components was considered to be due to irradiation of impurities only. Table 6 lists the impurities used in the analysis. The constituents for ash were determined from NUREG/CR3474.

Kaowool and Silica Insulation

Material compositions for the Kaowool and Silica block insulation were taken from the FSAR and material reference documents.

IV. RESULTS

The results of the activation analysis are presented in three sections: dose rates in the PCRV with various components removed, the activity (CURIE inventory) for the specified components and individual component dose rates.

IV.A PCRV Dose Rates

Radiation dose rates due to activated material within the PCRV were calculated for a variety of scenarios in which various components were removed. These dose rates are for an individual "standing" in the very center of the reactor cavity after the fuel and removable reflectors have been removed. Since the calculations were performed using three 1-D models, the total dose is the sum of the dose rates from all three directions. The dose rates were calculated for a time 5 years after shutdown and 60 years after shutdown.

After the defueling and removal of the defueling blocks, the components which remain in the radial direction extend from the large side reflector through the concrete. In the axial up direction, from the cover plate/kaowool through the top head concrete, and in the axial down direction from the core support blocks through the core support floor.

Tables 3 and 4 indicate the contribution of each direction at 5 and 60 years after shutdown. With all the components remaining in the PCRV the major contribution at both 5 and 60 years is from the radial direction. This is due to the high dose rate from the boronated spacer blocks.

The large side reflectors provide shielding from the boronated spacers. If the large reflectors are removed the radial dose rate is as high as 330 R/hr at 5 years and 0.23 R/hr at 60 years. This clearly indicates that dismantlement must be entirely performed remotely at 5 years and portions performed remotely at 60 years.

The dose rate in the PCRV reactor volume is dominated by the dose contributions from the radial components until the boronated spacer blocks are removed. If the spacers blocks are removed (leaving the core barrel), the radial dose rate drops to 21 micro R/hr (at 5 years) and down to 9 micro R/hr if the core barrel, cover plates and insulation are removed.

The axial directions do not have major contributions to the total dose rate until the liner/concrete is exposed in all directions (i.e. the spacers, core barrel, cover plates/insulation and core support are removed).

In the axial down direction the Core support posts and blocks shield the reactor space from a higher dose rate due to the core support floor liner, cooling tubes and concrete. The dose rate at 5 years with the CSB remaining is about 5 micro R/hr, but with only the liner and concrete remaining, the dose is about 260 micro R/hr. The axial up contribution when the coverplates/insulation are removed is approximately 45 R/hr.

IV.A.2 Residual Limits

No formal limits on activation exist for unrestricted release. Informal guidance by the NRC suggests that a dose of below 5.0 micro R/hr would be an acceptable limit. Tables 3 and 4 indicate the approximate depth of concrete in each direction which would require removal to obtain this limit.

IV.B Component Curie Inventory Summary

The analysis determined the total activity (curies) of each component described in section III.C. Table 5 summarizes the total curie level for each permanent component and the entire core. Attachment 5 contains the hand calculation for Table 5. Appendix C contains the detailed curie inventory by isotope for each component.

In the large side reflectors the activation products are due to the impurities in the graphite. No high energy gamma emitters are present in the large side reflectors. The total activity is composed primarily of tritium, Ca-41, Fe-55 and Ca-45 (short term). In the dose rate from the PCRV liner and cooling tubes Co-60 is the primary contributor to dose at 5 and 60 years. In the long term Fe-63 and Ni-59 become more important.

The metal shell for the large side reflectors is located only at the top of the core. Typical isotopes for metals are present. Co-60 is again the dominant gamma emitter and Fe-55 contributes to the total activity.

The spacer blocks are the primary contributors to the dose rate in the PCRV. This is due to the high amount of Co-60 in the boronated rods and the large number of rods. Co-60 is the major gamma emitter at both 5 years and 60 years after shutdown. Stainless steel has the potential to have niobium as a trace element. Niobium was not originally included as a trace element in the boronated rods, but a separate analysis shows that when an average value for niobium is included (see material composition section) its concentration is negligible in terms of dose rate and total activity. Other contributors to the total activity are Ni-59, Ni-63, Fe-55, and C-14, all of which are beta emitters. Ni-63 has the highest concentration and due to its long half life will be a major constituent in long term waste disposal.

The core barrel is divided into three sections of different thicknesses. The top portion is constructed of a slightly different type of carbon steel than the bottom and middle sections and was therefore modeled separately. In the upper section of the core barrel the dose is from Co-60 with some contributions from Mn-54 at 5 years. Co-60 is the primary dose and activity contributor for the upper core barrel at both 5 and 60 years. Other contributors include Mn-53 and Fe-55, and Fe-59 in the short term. In the lower section of the core barrel Co-60 is again the dominant gamma emitter at both 5 and 60 years after shutdown. Fe-55, Mo-93 and Nb-94 make minor contributions to dose and activation in both the short and long term.

The cover plate/kaowool mixture is considered together since the cover plates and insulation are layered in most places in the PCRV and would be removed simultaneously. The dose rate from the cover plate/kaowool mixture in the upper portions of the PCRV is dominated by the Co-60 in the coverplates. The mixture also contains Ca-41, Fe-55, Ni-63 and C-14 which may dominate in long term disposal considerations.

The PCRV concrete/rebar mixture contains many activation products due to the trace elements in the concrete. Reference 2 lists potential problem beta and gamma emitters. The major gamma emitters listed are Co-60, Eu-152, Eu-154, Ag-108m, and Ba-133. At five years after shutdown the concentration of Co-60 and Eu-152 are relatively close. Together they dominate the total dose. Co-60 the primary dose contributor in the short term since it has higher energy gammas. In the long term the EU-152 will dominate. At 5 years the concentration of Eu-154, Nb-94, Ag-108m, and Ba-133 are at least an order of magnitude below that of Co-60 and Eu-152. Ba-133 is not included in the REBATE library, but an ORIGEN2 run was performed by Ebasco (Attachment 6) to determine its concentration relative to Co-60.

Beta emitters listed in Reference 2 were H-3, Be-10, C-14, Ni-63 and Tc-99. Tritium has the highest concentration at 5 years. Although not mentioned in the reference, Ar-39 has the next highest concentration. The other beta emitters listed are several orders of magnitude less than the tritium.

Isotopes decaying by electron capture are also listed: Ni-59, Mo-93 and Ca-41. Of these three, Ca-41 is the most abundant. The PCRV concrete also has a high concentration of Fe-55. Mo-93, Ni-59 are several orders of magnitude less than the Ca-41 and Fe-55.

The hastelloy-x cans located in the lower reflector blocks contain Co-60 as the primary dose contributor.

The core support blocks (PGX graphite) are very similar in material composition to the large permanent reflectors. H-3, Ca-41 and Fe-55 are again the dominant isotopes in the long and short term. Ca-45 again has a relatively high concentration at 5 years but decays rapidly such that very little remains after 60 years.

The three layers of silica blocks are located just above the cover plate/kaowool on the core support floor. Fe-55 is abundant in large quantities at 5 years and Ni-63 at 60 years. C-14, Ca-41 and Ni-59 are also present in traces. Co-60 is the dominant gamma emitter.

The central column metal clad blocks contain high concentrations of Ni-63, Co-60 and Fe-55 at 5 years. Other isotopes present in the MCBs are Mn-54, NI-59 and Nb-94.

The surrounding MCBs are constructed of a different material than the center column. They are high in Co-60 and Fe-55, but have low concentration of Nb-94 relative to the center column.

The orifice valve lower section has a relatively low activity level. Co-60 is the primary gamma emitter.

The RCDs contain fairly high concentrations of Co-60, Fe-55 and Ni-59 at 5 years. Primary dose contribution is from Co-60 in both the long and short term.

IV.C Component Dose Rates

In a separate analysis the dose rates (at 1 meter) for several components were calculated using the ISOSHLD code. This analysis included dose rate from activation and plateout. The results of that analysis are provided in this report for completeness. Table 7 provides a list of the components and dose rates. The calculation sheets and assumptions for this analysis are provided in Attachment 7.

V. CONCLUSIONS

The primary dose contributor in the PCRV is Co-60. Cobalt is present in the majority of components. Other gamma emitter such as Nb-94 and Eu-152 contribute to the dose as well. In the PCRV concrete Eu-152 becomes the dominant gamma emitter in the long term.

The total activity of the PCRV and permanent internal components is on the order of 5.4 million curies at 5 years after shutdown. The large graphite reflector contributes to 99% of the activity. Tritium and Fe-55 (short term) are the dominant nuclides in the reflectors. Ni-63, Ni-59, Ca-41, Ar-39 and Mo-93 contribute in varying degrees to the total activity. Long term disposal considerations will be effected by the longer lived nuclides.

The results of this analysis show that the dismantlement of the reactor and internals without the use of remote techniques is impossible at 5 years after shutdown. The high dose from the boronated spacer blocks prevent human access for even short periods of time. Dose rates from the spacer blocks are approximately 330 R/hr when no shielding is provided by the large reflectors. If the spacers are removed the dose rate from the top would limit access since dose rate range from 240-630 mR/hr (dependent on remaining components).

The depth of concrete requiring removal to meet the 5 micro R/hr limit is about twice as high at 5 years than at 60 years after shutdown. Approximately 2' would require removal in the radial and axial down directions and ~3' from the top head at five years after shutdown.

If the PCRV is dismantled after the 60 year SAFSTOR period, dose rates of approximately 0.2 R/hr would allow the use of remote techniques with very limited access during the removal of the spacer blocks. Once the spacer blocks are removed the maximum total dose rate would be on the order of 1 mR/hr, allowing access into the PCRV.

The required depth of concrete removal at 60 years would be approximately 10" in the radial and axial down directions. The top head would require 18" - 20" of concrete to be removed.

VI. REFERENCES

1. GA Fuel Accountability, GATT Flux Tape, EOC3.

2. GA Document 909658, Rev. A, "FSV Plateout Analysis of Decommissioning Study," February 27, 1989.

3. NUREG/CR-3474, "Long-Lived Activation Products in Reactor Materials", Published August, 1984.

4. "Fort St. Vrain Nuclear Generating Station, Unit No. 1, Decommissioning Cost Study," April 12, 1982, Revised September 15, 1982.

Table 1
Topics of Instructional Sessions

Session	Topic
1	Nuclear Data Libraries
2	Transport Equation, Multigroup Library, AMPX Modular Code System; Activation Data and Radioactive Decay Data
3	ANISN and its Input Data Preparation; Activation Calculation Sequence; DOT 4.3 Options
4	Activation Analysis
5	ORIGEN and its Input Data Preparation ISOSHLD and its Input Data Preparation

Table 2
List of Nuclear Codes and Data Libraries

Code No	Code Title	Type of Code
CCC-254	ANISN	Major Nuclear Codes for
CCC-429	DOT IV Version 4.3	for Radiation Transport
PG-2561	REBATE	Activation Analysis, Isotope
CCC-371	ORIGEN	and Activity Generation Codes
CCC-79	ISOSHLD	Radiation Shielding Code
PSR-63	AMPX-II	Nuclear Data Utilities
PSR-110	DOQDP	Angular Quadrature Sets
DLC-75	BUGLE-80	Nuclear Data Library

Table 3
PCRV Dose Rates at 5 Years After Shutdown

Radial	Gamma Dose Rate (R/Hr)
All components (Lg. Reflector through concrete)	1.9E + 0
No large reflectors (Spacers Concrete)	3.3E + 2
Core Barrel - Concrete	3.0E - 2
Liner + Concrete	1.3E - 2
Concrete Only	6.5E - 3
Minus 24" Concrete	4.9E - 6
Minus 26" Concrete	2.6E - 6
Axial Up	
All components (Kaowool Concrete)	2.4E - 1
Liner & Concrete	6.3E - 1
Concrete Only	2.5E - 1
Minus 36" Concrete	3.8E - 6
Minus 38" Concrete	2.2E - 6
Axial Down	
All Components (CSB CSF)	7.2E - 3
Liner + Concrete	3.6E - 1
Concrete	2.6E - 2
Minus 22" Concrete	3.9E - 6
Minus 24" Concrete	2.0E - 6

Table 4
PCRV Dose Rates at 60 Years After Shutdown

Radial	Gamma Dose Rate (R/Hr)
All components (Lg. Reflector Concrete) No large reflectors (Spacers Concrete)	1.3E - 3
	2.3E + 1
Core Barrel - Concrete	2.1E - 5
Liner + Concrete	8.9E - 6
Concrete Only	1.7E - 5
Minus 8" Concrete	5.3E - 6
Minus 10" Concrete	2.3E - 6
Minus 12" Concrete	1.2E - 6
Axial Up	
All components (Kaowool Concrete)	1.7E - 4
Liner + Concrete	4.5E - 4
Concrete Only	6.8E - 4
Minus 18" Concrete	3.0E - 6
Minus 20" Concrete	1.5E - 6
Axial Down	
All Components (CSB CSF)	5.1E - 3
Liner + Concrete	2.6E - 1
Concrete	1.0E - 2
Minus 6" Concrete	6.5E - 6
Minus 8" Concrete	2.8E - 6
Minus 10" Concrete	1.3E - 6

Table 5
Permanent Component Curie Totals

Component	Individual Component Description		5 years	60 years	Core Total 5 years	Core Total 60 years
1. Boronated Spacer Blocks	1 Typical reflector w/76 rods		5.88E+0	7.32E-2	5.99E+3	7.47E+1
2. Core Barrel	Top Section; 1x1a section		2.29E-2	2.64E-6	5.85E+0	6.96E-4
	Middle Section; 1x1a section		2.53E-2	3.07E-6		
	Bottom Section; 1x1a section		2.79E-2	3.38E-6		
3. Core Support Block	Typical Hexagonal Block		3.64E+0	8.77E-2	2.13E+2	5.12E+0
4. Kaowool Insulation and Cover Plates	Top Head; 1x1a section		6.83E-2	4.89E-6	6.48E+1	6.63E-2
	Radial; 1x1a section		6.43E-4	5.31E-8		
	CSF; 1x1a section		1.44E+0	1.57E-3		
5. Large Side Reflector	1 Typical		1.02E+3	2.47E+1	5.45E+6	1.32E+5
6. PCRV Liner	Top Head; 1x1a section		8.49E-1	2.98E-4	1.74E+2	5.91E-2
	Radial; 1x1a section		1.84E-2	6.06E-6		
	CSF; 1x1a section		1.32E+0	4.36E-4		
7. Metal Shell-Large Side Reflector	1 Typical Shell		3.52E-5	3.20E-9	8.46E-3	7.68E-7
8. Silica Black Insulation	1x1a section (3 layers)		4.28E+0	4.66E-3	1.78E-2	1.94E-1
9. PCRV Concrete	Top Head:	1st 6"	6.96E+1	4.53E-1	8.96E+1 (Top Head)	5.82E-1 (Top Head)
		2nd 6"	1.81E+1	1.17E-1		
		3rd 6"	1.79E+0	1.15E-2		
		4th 6"	1.90E-1	1.24E-3		
		5th 6"	2.50E-2	1.71E-4		
		6th 6"	4.49E-3	2.97E-5		
10. PCRV Concrete	Radial:	1st 6"	6.28E+0	4.09E-2	8.79E+0 (Radial)	5.71E-2 (Radial)
		2nd 6"	2.21E+0	1.43E-2		
		3rd 6"	2.58E-1	1.68E-3		
		4th 6"	2.90E-2	1.89E-4		
		5th 6"	4.20E-3	2.77E-5		
		6th 6"	7.60E-4	5.05E-6		
11. PCRV Concrete	CSF:	1st 6"	4.02E+0	2.59E-2	4.31E+0 (CSF)	2.78E-2 (CSF)
		2nd 6"	2.68E-1	1.73E-3		
		3rd 6"	2.35E-2	1.52E-4		
		4th 6"	2.54E-3	1.65E-5		
		5th 6"	3.29E-4	2.16E-6		
		6th 6"	5.42E-5	3.58E-7		
				PCRV Total:	5.46E+6	1.32E+5

Table 6
Graphite Impurities

	PGX	ATJ	H451	H327	HLM
Bulk Density (g/cc)	1.76 ± 0.06	1.73	1.74 ± 0.025	1.77 ± 0.04	1.8 ± 0.04
Mean Impurity Level (ppm)*					
Ash	4900	0.158%	100	130	
B	2	1.25	2	1	
Fe	1900	10.1	9	20	
Va	14	8.25	7		
Ti	28	14.75	6		
Ca	190	290		30	
Si	62	60	35		
Al	66	28.5			
Ba	34	50			
S	310	3.3	3	3	
Li	2	<0.001%	0.036	0.1	
Cu		1.5			
Mg		1.5			
Mo		1.25			
Ni		0.75			
Ag		0.5			
Zr		1.3			

* all impurities in ppm except for Ash and Li in ATJ which are in (%)

References

1. For PGX, H451, H327 and HLM: "Graphite Design Manual," GA document GA906374, Issue A, August 1984 (proprietary)

2. Ash and Li for ATJ: Industrial Graphite Engineering Handbook, Union Carbide, 1970 edition

3. Rest of ATJ: "Mechanical and Chemical Properties Changes of ATJ Graphite After Oxidation in He/Steam Mixture", GA document DAD14526, Karl Koyama et al, October 1977

Table 7
Component Dose Rate
(5 years after shutdown)

Component	Comments	Dose Rate
Boronated Spacer Block	Calculation for a block with 78 pins dose rate at 1 meter	1.31 R/hr
Region Constraint Device	Dose Rate 1 meter from side (legs shielded)	28.00 mR/hr
	Dose Rate 1 meter from bottom (direct shine from pins)	3.9 R/hr
Large Side Reflector	Dose rate at 1 meter	5 mR/hr
Removable Reflector	Dose rate at 1 meter	5 mR/hr
Core Barrel	Dose rate at 1 meter for a 1 x 1 m slab	5 mR/hr

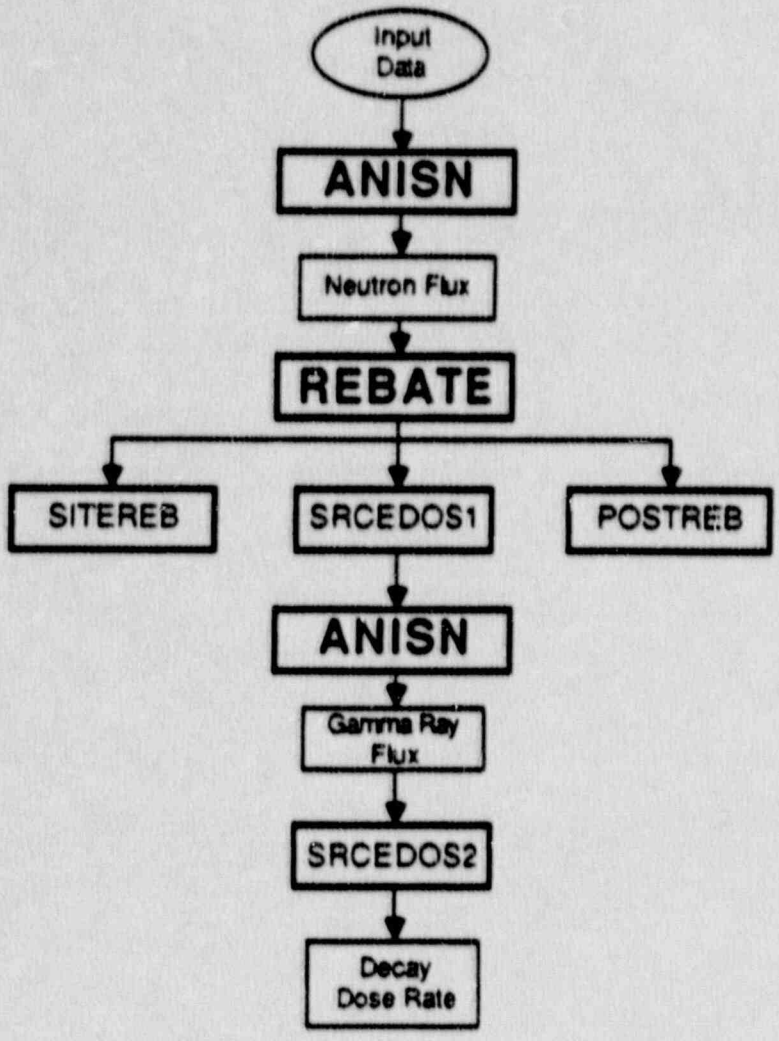
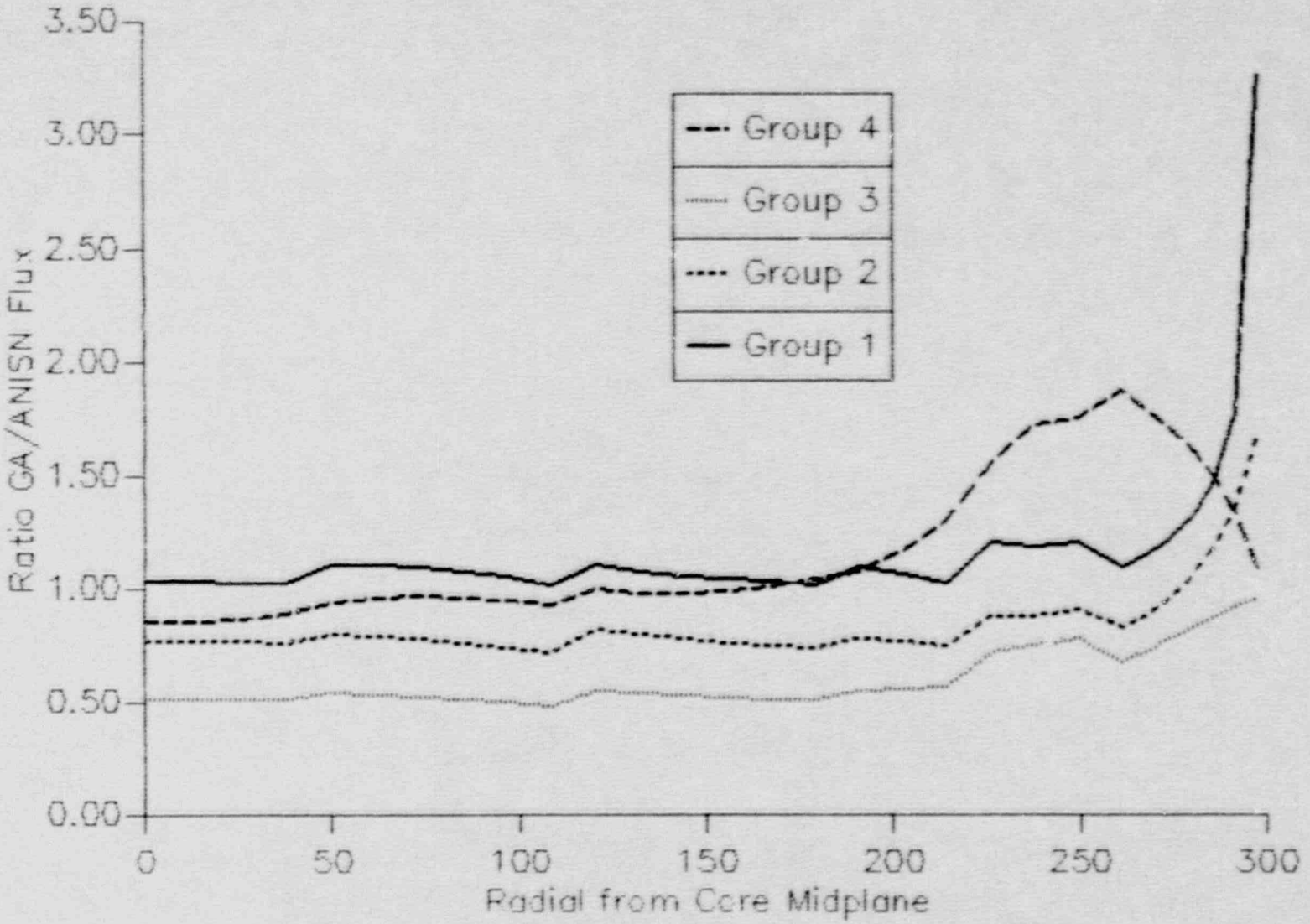


Figure 1
Calculational Sequence Flow Chart

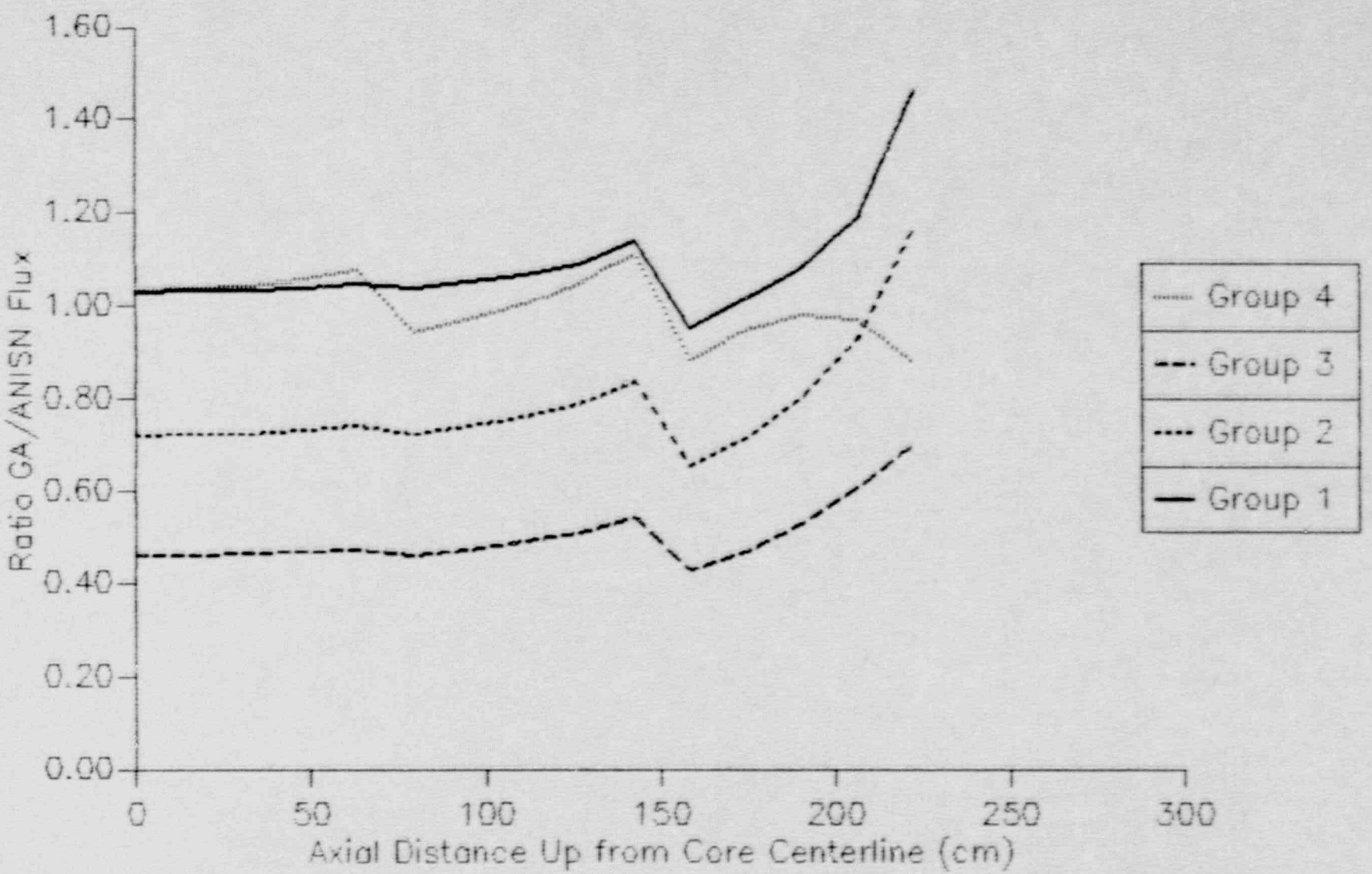
ICU File: T8284(RATIORD4)

Figure 2
Radial Flux Ratios



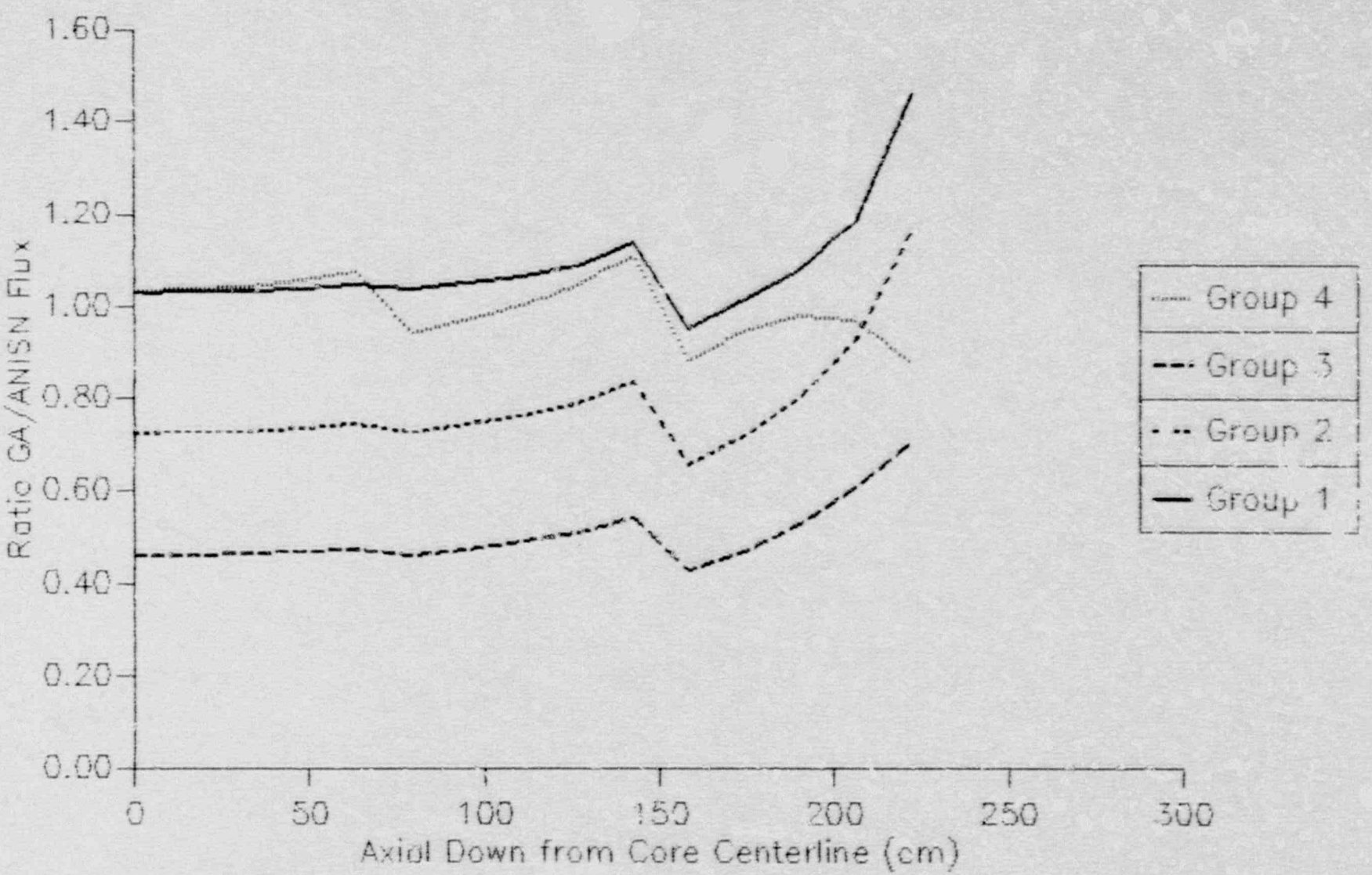
ICU File: T8284(RATIOUP4)

Figure 3
Axial Up Flux Ratios



ICU File: T82[illegible]RATIO(IN4)

Figure 4
Axial Down Flux Ratios



ICU File: T6284(FLUXRAD4)

Figure 5
Radial Flux Traverse

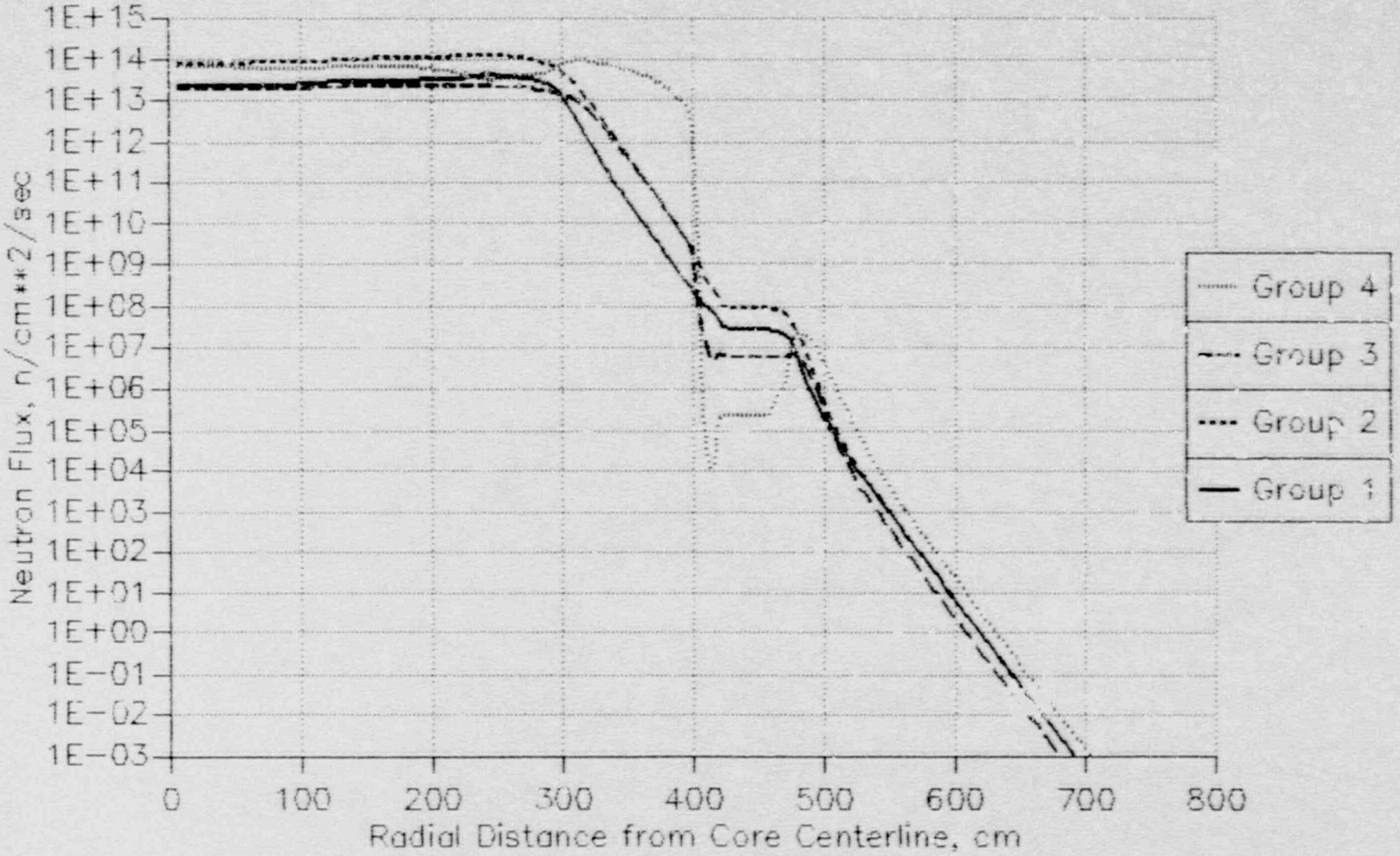
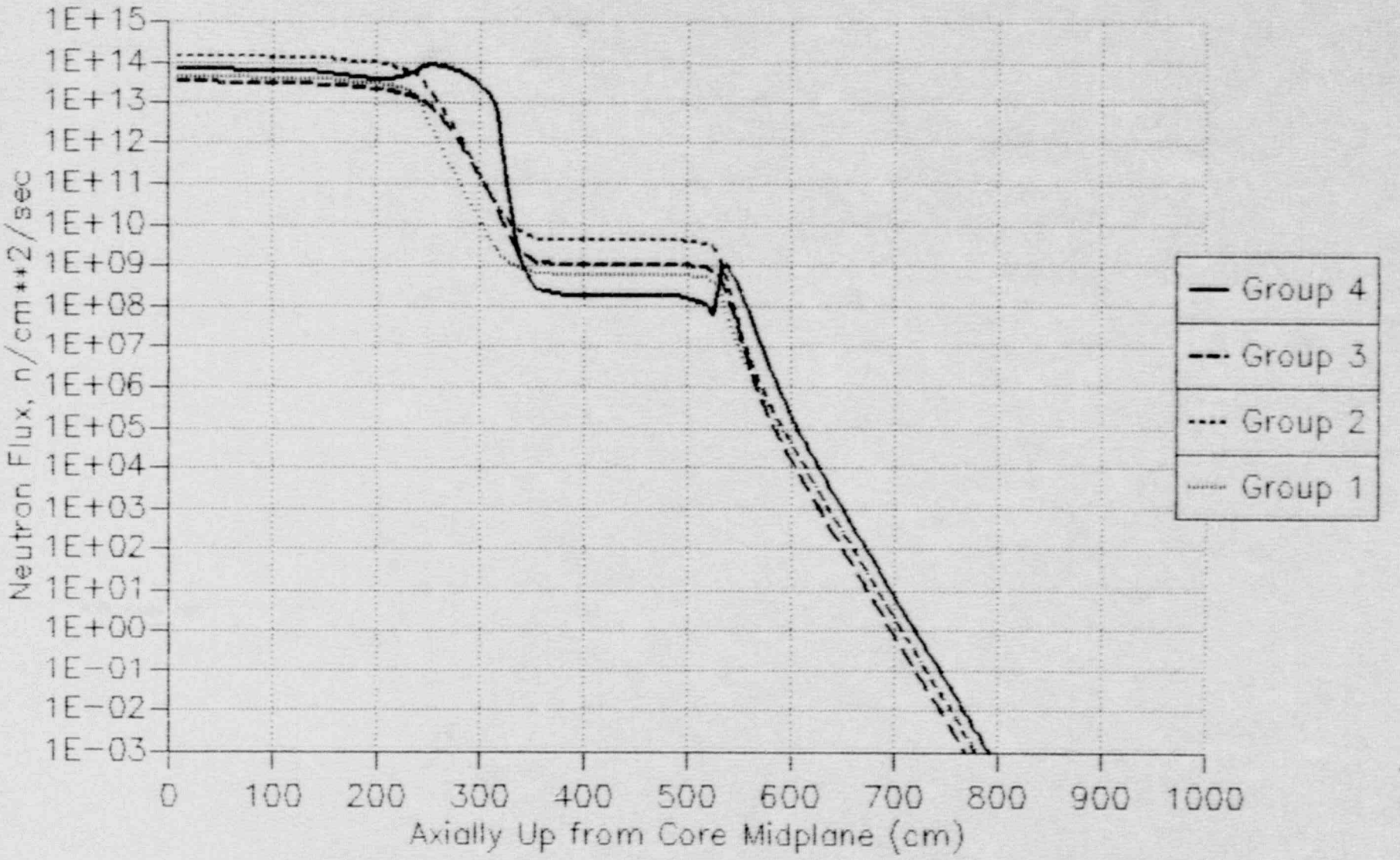


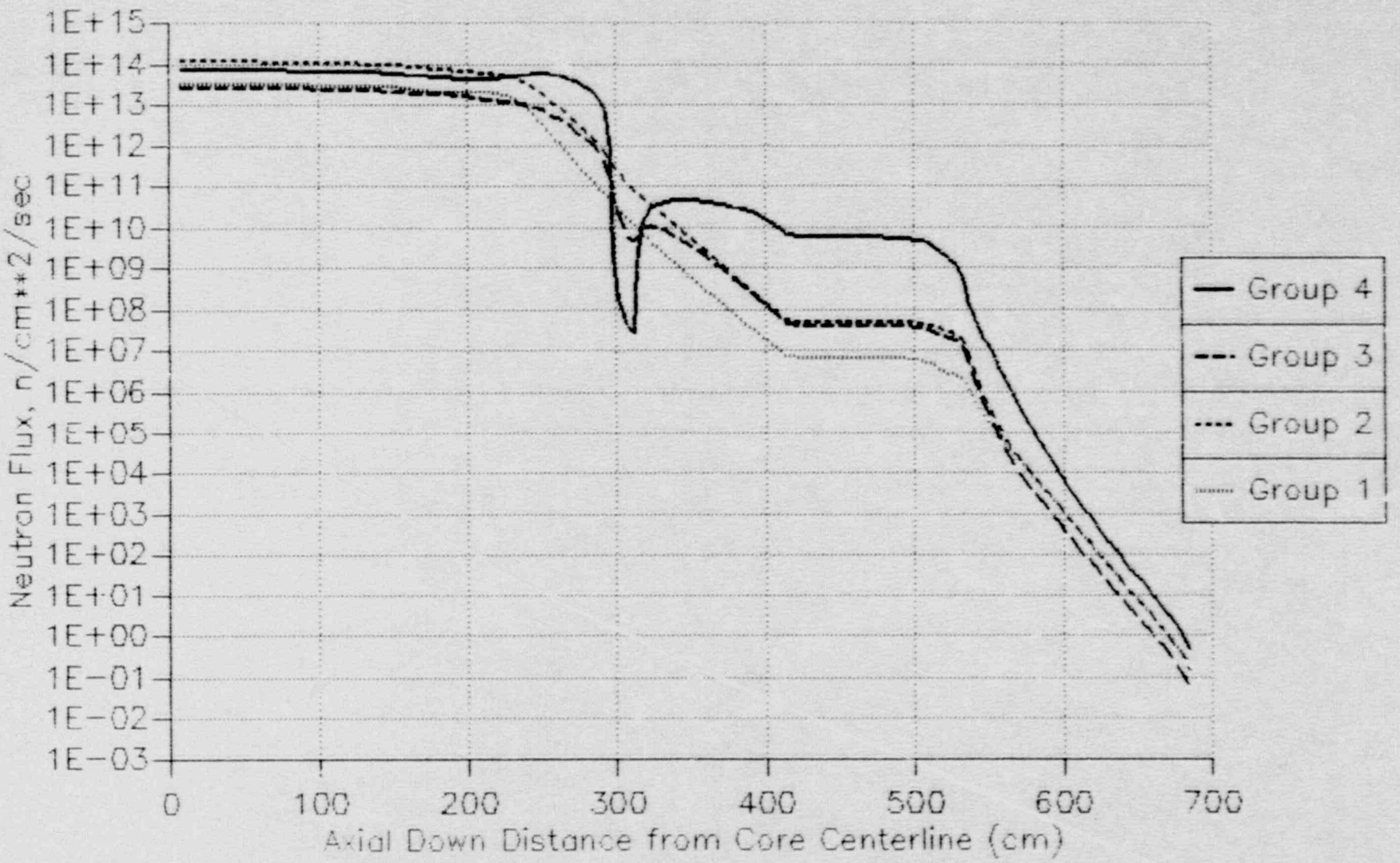
Figure 6
Axial Up Flux Traverse

ICU File: T8284(FLUXUP4)



ICU File: T8284(FLUXDWN4)

Figure 7
Axial Down Flux Traverse



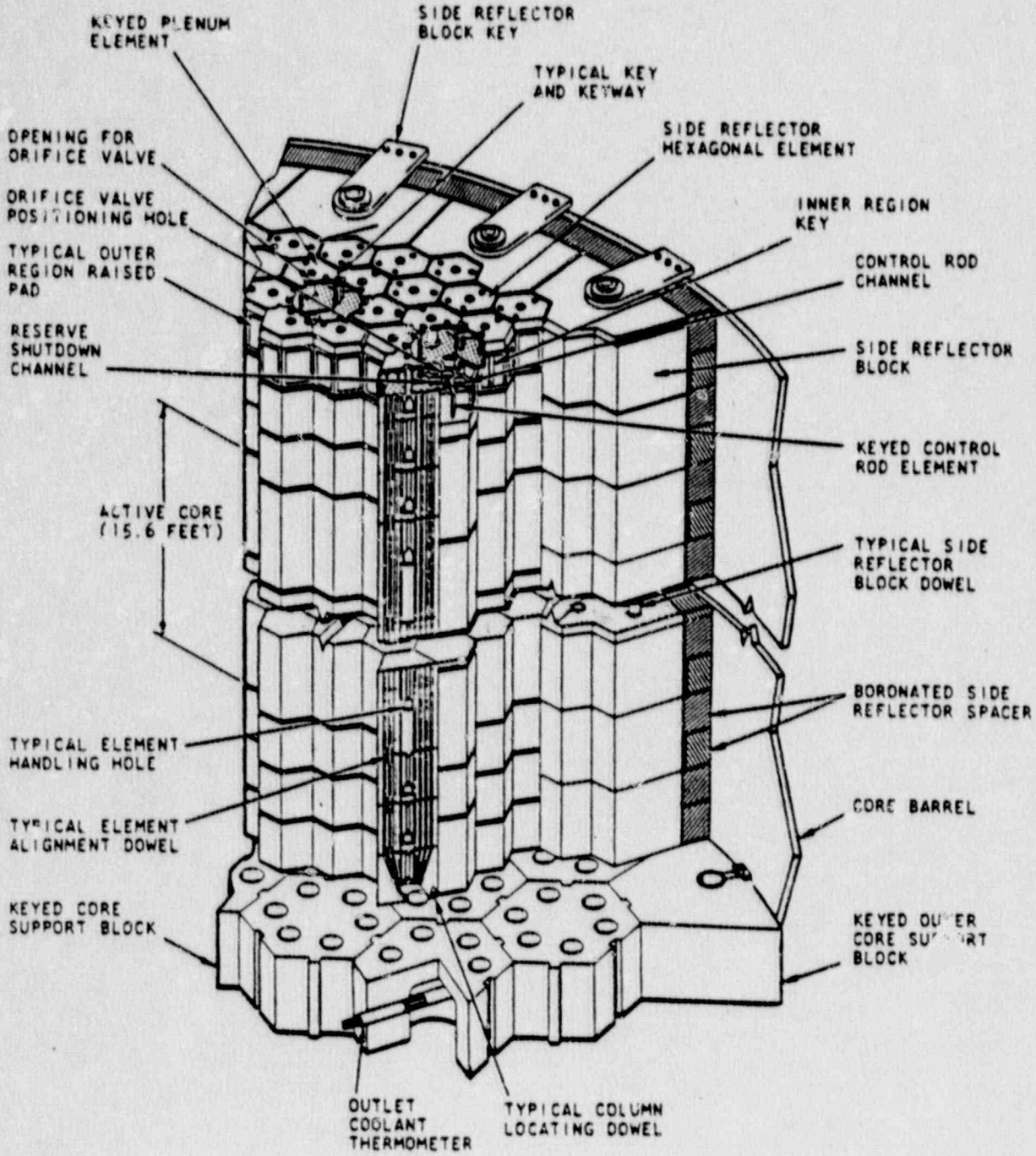


Figure 8
Core Arrangement

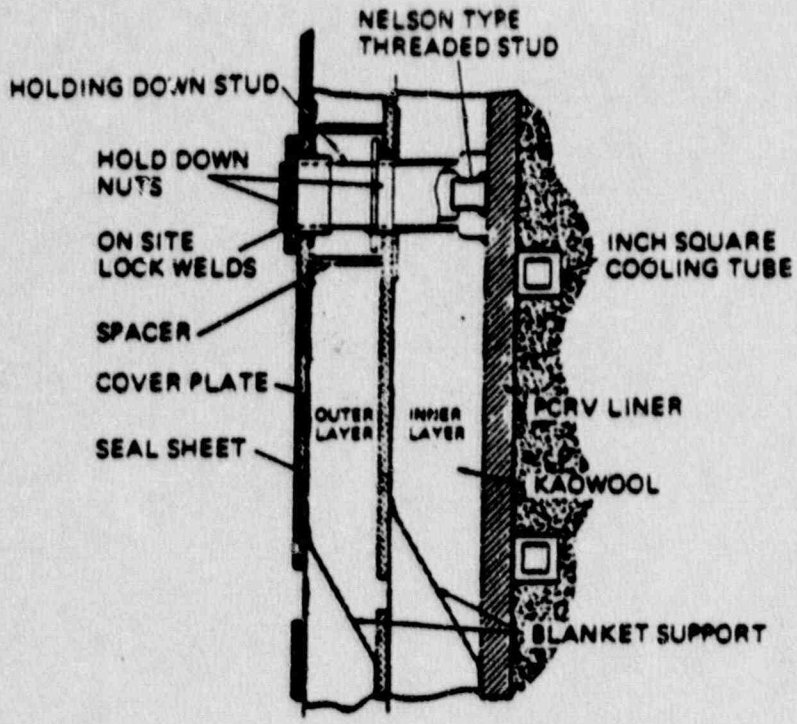


Figure 9
Class A Insulation

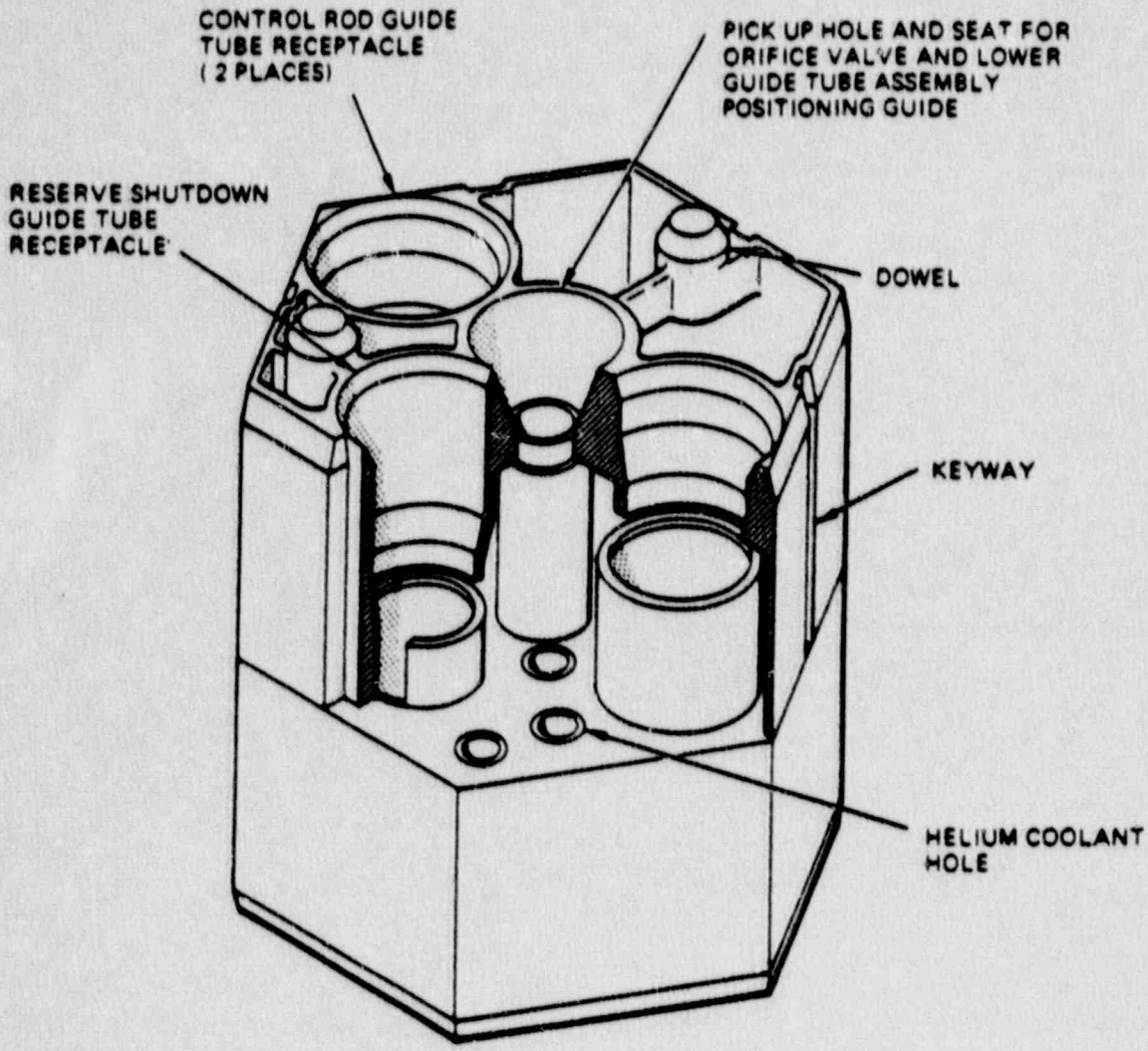


Figure 10
Central Column Metal Clad Reflector

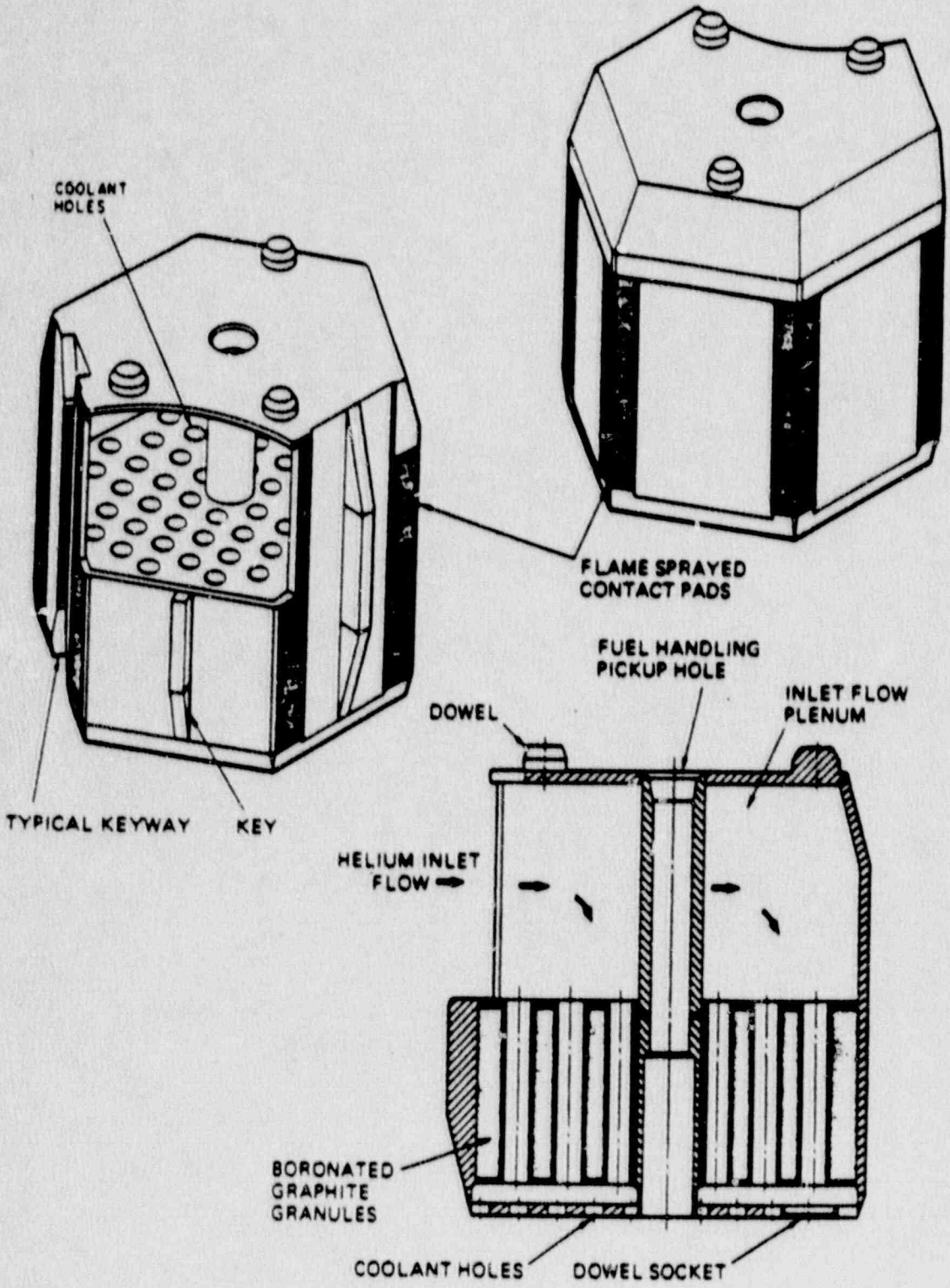


Figure 11
Side Column Metal Clad Reflector

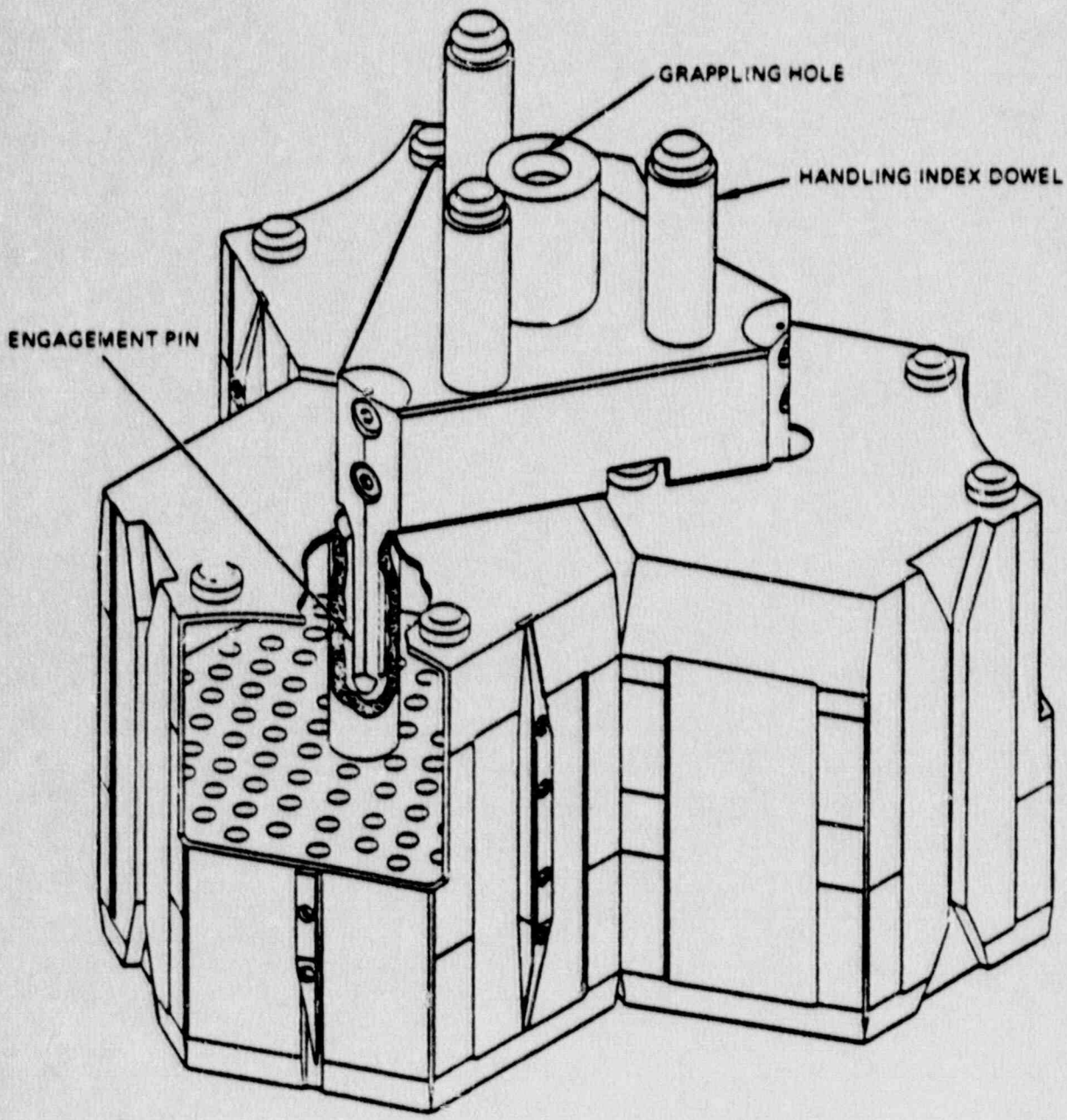


Figure 12
Region Constraint Device

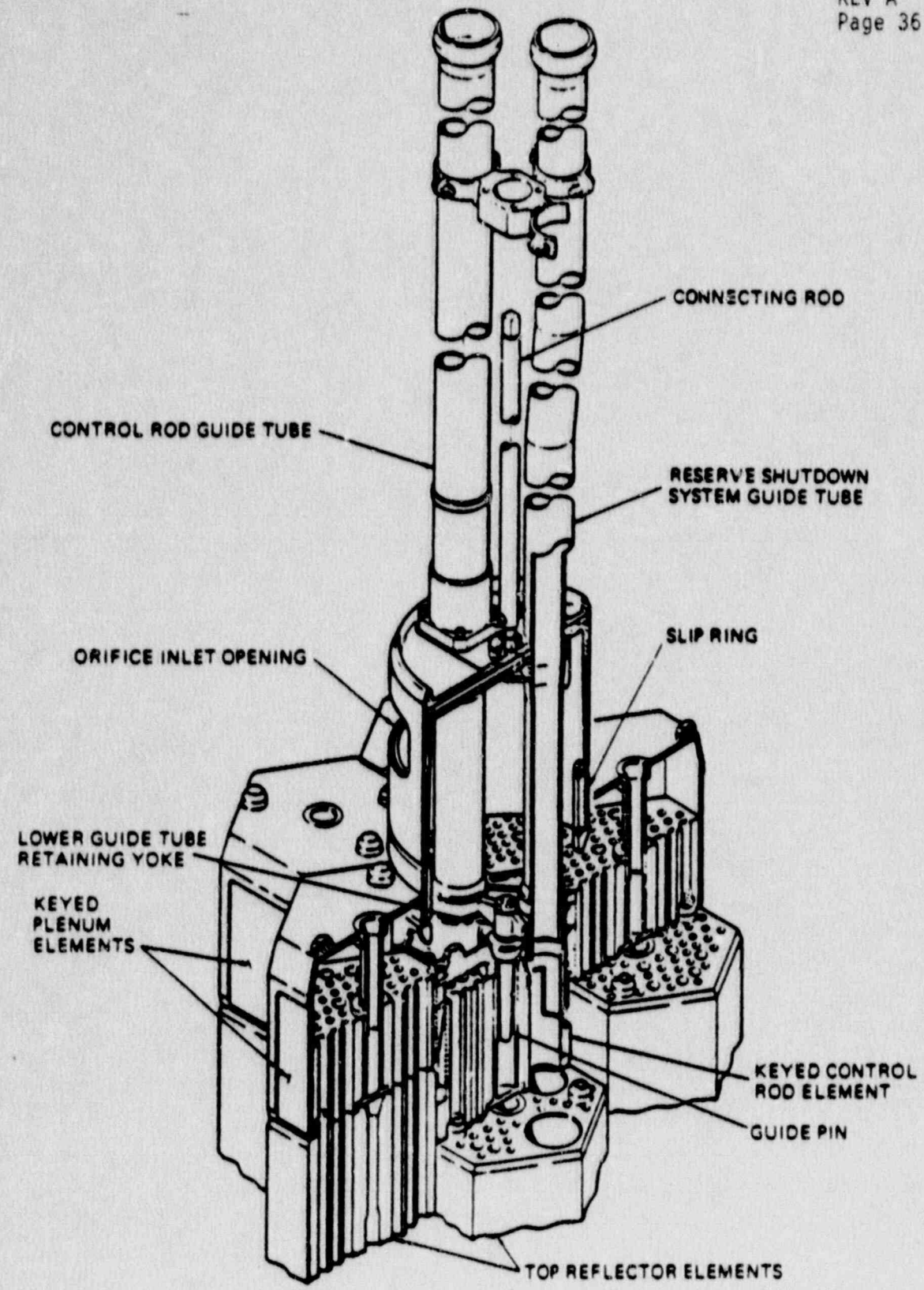


Figure 13
Lower Orifice Valve Assembly

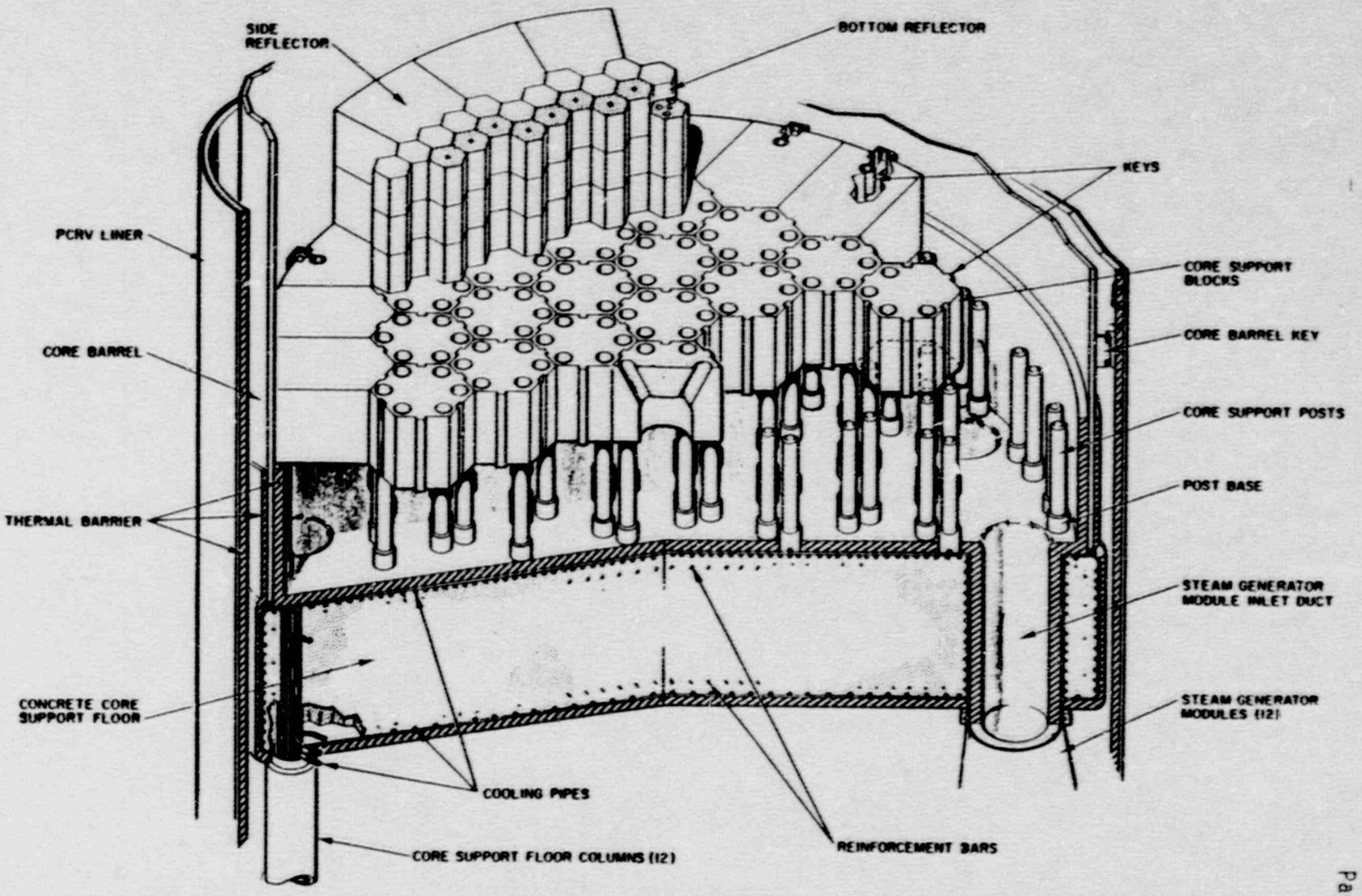


Figure 14
Core Support Arrangement

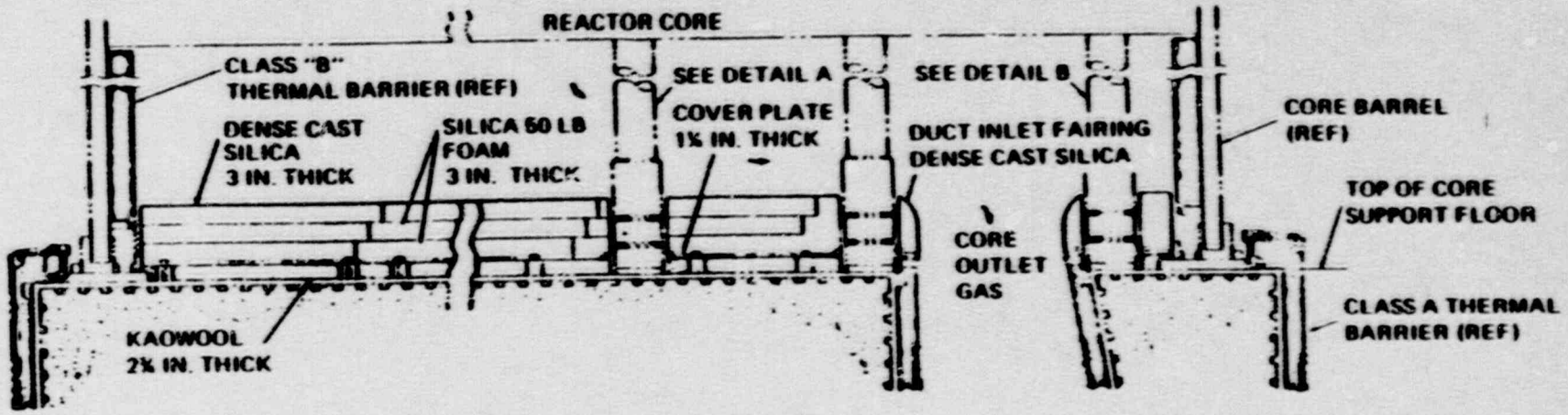


Figure 15
Class C Insulation

Appendices

EE-DEC-0010

REV A

Fort St. Vrain Activation Analysis

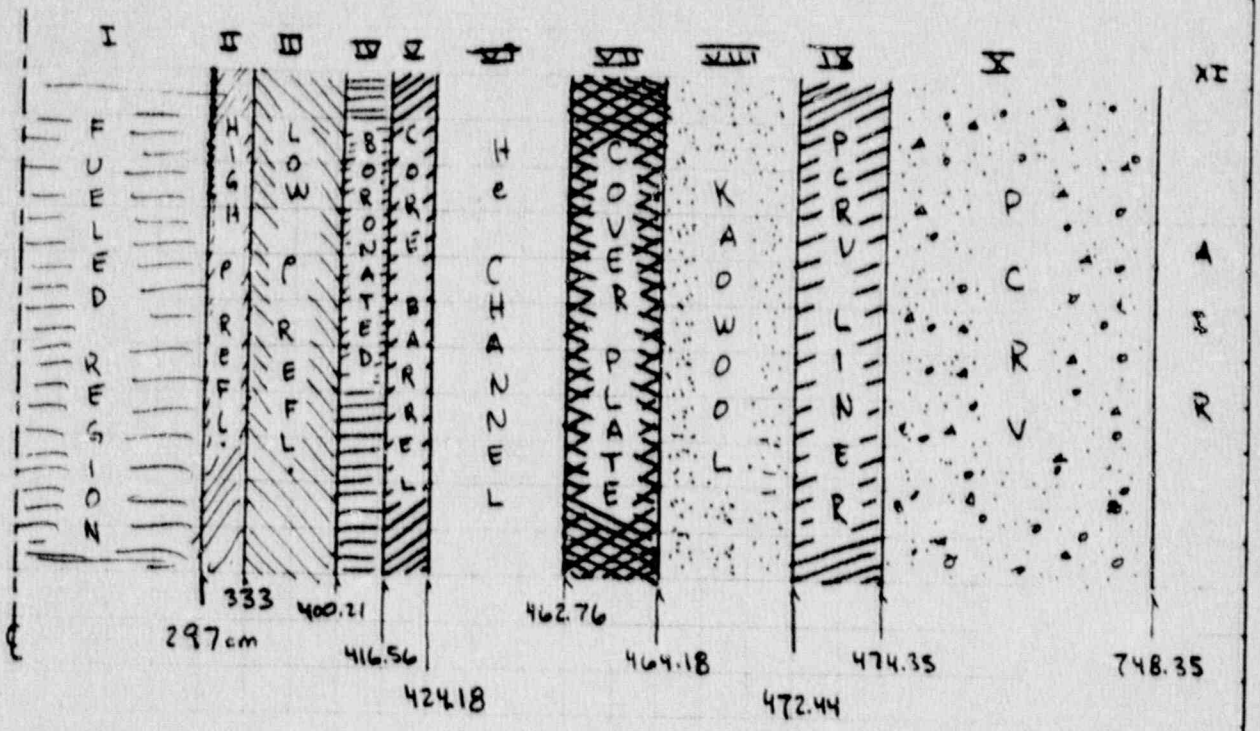


Figure 4 ANISN Radial Model of Reactor.

The mesh size is determined next. The recommended mesh size has each of the region's mesh size approximately the same number of transport mean free paths.

The transport mean free path is given by

$$\lambda_{tr} = \left(\Sigma_s (1-\bar{\mu})\right)^{-1}$$

where $\bar{\mu} = 2/3A$, Σ_s = macroscopic scattering cross section

ANISN Axial-Up Model of Reactor

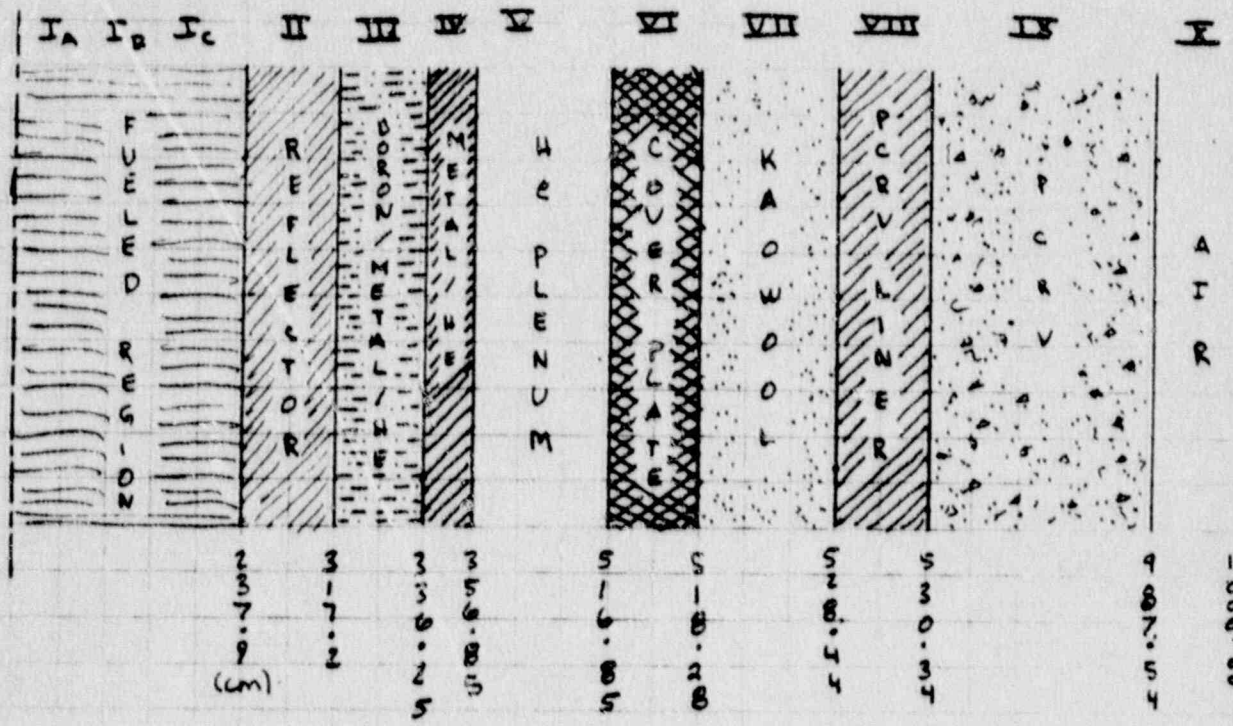


Figure 11.

The mesh size is determined identically as the mesh size in the radial case. The core mean free paths is approximately 6, giving 5 axial intervals for each level.

The number of intervals for the other materials are similar to those of the radial model.

Figure 16 shows the ANISN model used for the axial-down calculation.

As with the axial up model, the core region will be split into 15 mesh intervals, 5 each for the three levels. The 4** array is listed below.

```
4**

14I0.0      8I237.9      7I293.91     5I315.14
            7I356.85     3I415.25     2I501.61     524.41
              532.03    29I533.94       686.31
```

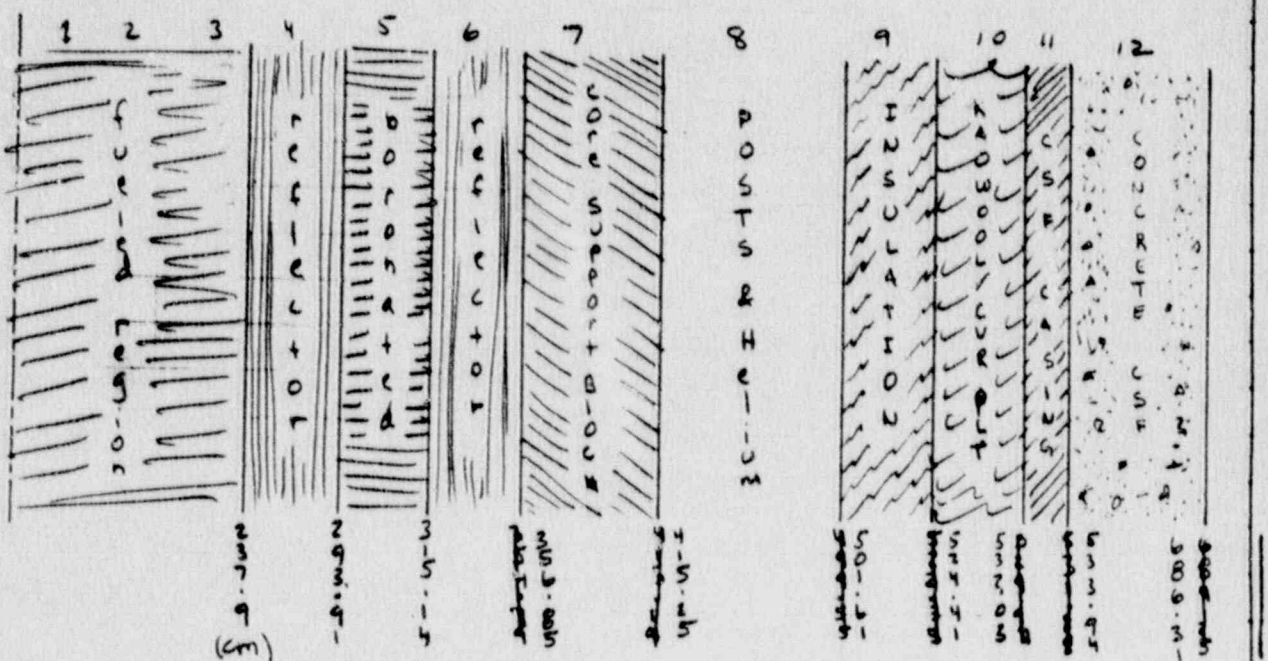


Figure 16 ANISN Axial-Down Model of Reactor

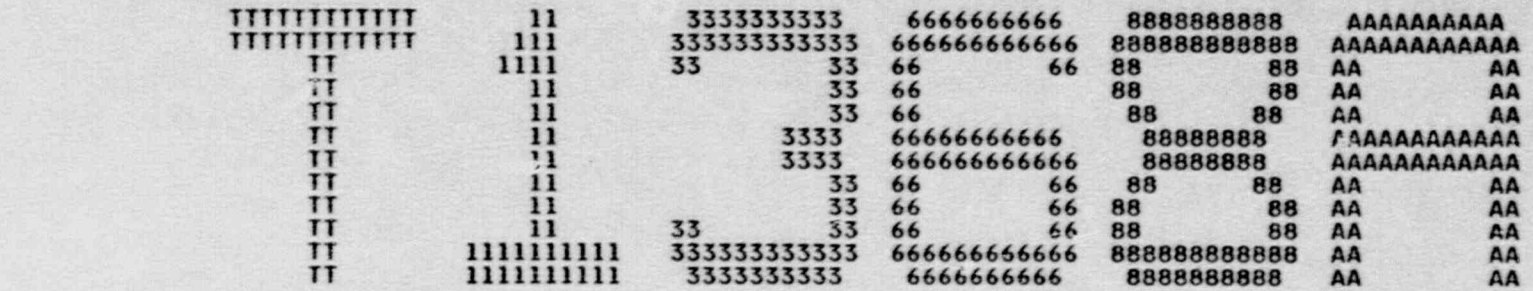
Appendix A
EE-DEC-0010

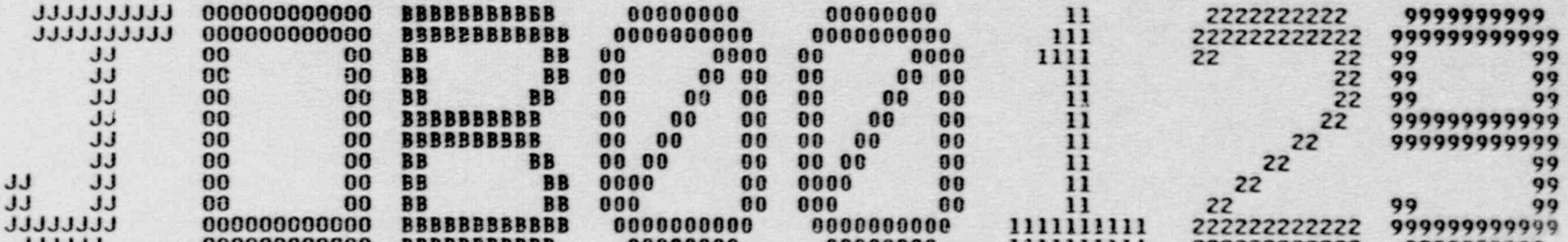
Ebasco's Activation Analysis

Volumes 1 and 2

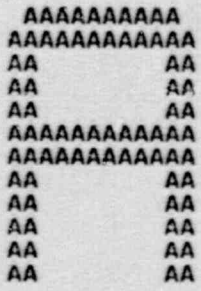
Appendix B
EE-DEC-0010

Material Composition Data Base





Diamond Hill



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*START JOB00129 T1368A  1    001 001 LOCAL  1368 VW DIAMOND HILL ROOM  9.00.16 AM 11 JUL 89 PRT15  DDDD START A*
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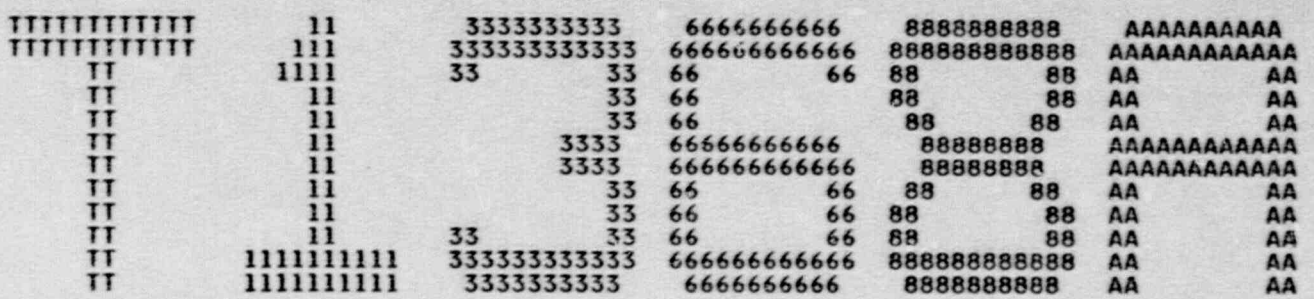
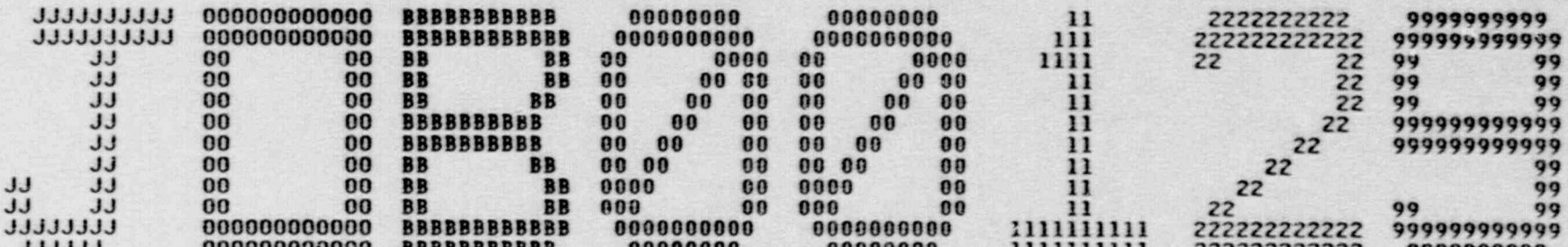
Appendix B
EE-DEC-0010

Appendix B
EE-DEC-0010

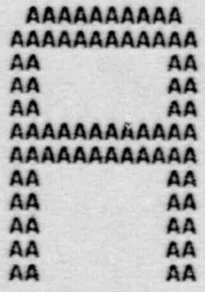
Material Composition Data Base

FORM (A)292-12-3546





Diam Hill



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Appendix B
EIS-DOC-0

FORM (A)292-12-3546

J E S 2 J O B L O G -- S Y S T E M D D D D -- N O D E L O O K O U T

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-------- JOB00129  IEF097I T1368A   - USER T8284    ASSIGNED
09.00.04 JOB00129  TSS701I T8284    LAST-USED 11 JUL 89 08:55 SYSTEM=DDDD FACILITY=BATCH
09.00.04 JOB00129  TSS702I COUNT=03532  MODE=WARN  LOCKTIME=NONE NAME=FISHER, STEVE
09.00.04 JOB00129  $HASP373 T1368A   STARTED - INIT 62 - CLASS A - SYS DDDD
09.00.14 JOB00129  * T1368A    001 SAS       SASLPA      ----------- R000
09.00.15 JOB00129  * T1368A      1      6311      6.51   -----------  EOJ
09.00.15 JOB00129  $HASP395 T1368A   ENDED

------ JES2 JOB STATISTICS ------

    11 JUL 89 JOB EXECUTION DATE

          58 CARDS READ

       1,101 SYSOUT PRINT RECORDS

           0 SYSOUT PUNCH RECORDS

          87 SYSOUT SPOOL KBYTES

        0.18 MINUTES EXECUTION TIME
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FORM (A)292-12-3546

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1 //T1368A JOB (12,4821-63-54),'1368 VW DIAMOND HILL',                  JOB00129
  //           MSGLEVEL=(0,0),CLASS=A,MSGCLASS=A,NOTIFY=T1368           00020000
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FORM (A)292-12-3546

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TSS702I COUNT=03532  MODE=WARN  LOCKTIME=NONE NAME=FISHER, STEVE
IEF142I T1368A SAS - STEP WAS EXECUTED - COND CODE 0000
IEF373I STEP /SAS     / START 89192.0900
IEF374I STEP /SAS     / STOP  89192.0900 CPU    0MIN 00.30SEC SRB    0MIN 00.04SEC VIRT  1664K SYS   192K EXT       4K SYS    9012K
********************************** S T E P   T E R M I N A T I O N **********************************
*    JOB   STP   STEP      PGM     STARTED      ENDED       TCB      SRB    ELAPSED   SWAP  CORE   COMP *
*   NAME    #    NAME     NAME      TIME        TIME      SECONDS  SECONDS  SECONDS  COUNT  USED   CODE *
* T1368A   001 SAS      SASLPA   09:00:04.96 09:00:14.19      .30      .04     9.23      0  1856K  R000 *
*************************************************************************************************************
*                      SWAP    SWAP      VIO      VIO      TCB      I/O      MSO      SRB      TOTAL    *
*  PAGEINS PAGEOUTS  PAGEINS PAGEOUTS  PAGEINS PAGEOUTS    S U      S U      S U      S U       S U     *
*        0        0        0        0        0        0     1851     1540     2688      232     6311    *
*************************************************************************************************************
IEF375I  JOB /T1368A  / START 89192.0900
IEF376I  JOB /T1368A  / STOP  89192.0900 CPU    0MIN 00.30SEC SRB    0MIN 00.04SEC
********************************** J O B   T E R M I N A T I O N **********************************
*    JOB  PERF   TOTAL    ACTIVE   STARTED      ENDED       TCB      SRB   ELAPSED   TOTAL              *
*   NAME   GRP    S U    SECONDS    TIME        TIME      SECONDS  SECONDS SECONDS   SWAPS              *
* T1368A     1     6311     6.51 09:00:04.96 09:00:14.99      .30      .04    10.03      0              *
*************************************************************************************************************
```

FORM (A)292-12-3546

NOTE: COPYRIGHT (C) 1984,1988 SAS INSTITUTE INC., CARY, N.C. 27512, U.S.A.
NOTE: THE JOB T1368A HAS BEEN RUN UNDER RELEASE 5.18 OF SAS AT PUBLIC SERVICE COMPANY OF COLORADO (01298001).

NOTE: SAS OPTIONS SPECIFIED ARE:
SORT=4

BASE SAS PRODUCT NEWS:

YOU ARE RUNNING THE VERSION 5 MAINTENANCE RELEASE OF THE SAS SYSTEM (5.18).

```
1          DATA TEMP;                                                                    00110000
2            SET SASDAT.ACTANAL;                                                         00120000
3            ARRAY ELEMS (17) ELEM1-ELEM17;                                              00130000
4            ARRAY WEIGHTS (17) WEIGHT1-WEIGHT17;                                        00140000
5            ARRAY NUMS (17) NUM1-NUM17;                                                 00150000
6            FILE PRINT HEADER=TOPPAGE;                                                  00160000
7            PUT _PAGE_;                                                                 00170000
8            PUT @26 'COMPONENT:  ' COMP $68.;                                           00180000
9            PUT @26 'LOCATION:  ' LOC $6. @52 'FIXED OR REMOVABLE:  ' FIXED $2.;        00190000
10           PUT @26 'DESC: ' DESC $69.;                                                 00200000
11           PUT @36 DESC2 $69.;                                                         00210000
12           PUT @26 'REF DWGS; ' REFDWG1 $69.;                                          00220000
13           PUT @36 REFDWG2 $69.;                                                       00230000
14           PUT @36 REFDWG3 $69.;                                                       00240000
15           PUT @36 REFDWG4 $69.;                                                       00250000
16           PUT @36 REFDWG5 $69.;                                                       00260000
17           PUT @26 'COMPOSITION REF:   ' COMPREF $60.;                                 00270000
18           PUT @26 'COMPONENT VOLUME (CM**3):';                                        00280000
19           PUT @45 COMPVOL E12. +1 VOLNOTE $20.                                        00290000
20               +2 COMPVOL2 E12. +1 VOLNOTE2 $20.;                                      00300000
21           PUT @45 COMPVOL3 E12. +1 VOLNOTE3 $20.                                      00310000
22               +2 COMPVOL4 E12. +1 VOLNOTE4 $20.;                                      00320000
23           PUT @45 COMPVOL5 E12. +1 VOLNOTE5 $20.                                      00330000
24               +2 COMPVOL6 E12. +1 VOLNOTE6 $20.;                                      00340000
25           PUT @45 COMPVOL7 E12. +1 VOLNOTE7 $20.                                      00350000
26               +2 COMPVOL8 E12. +1 VOLNOTE8 $20.;                                      00360000
27           PUT @26 'COMPONENT DENSITY (G/CM2):  ';                                     00370000
28           PUT @45 DENSITY E12. +1 DENNOTE1 $20. +2 DENSITY2 E12. +1                   00380000
29               DENNOTE2 $20.;                                                          00390000
30           PUT @45 DENSITY3 E12. +1 DENNOTE3 $20. +2 DENSITY4 E12. +1                  00400000
31               DENNOTE4 $20.;                                                          00410000
32           PUT @26 'CALCULATION NUMBERS:   '  CALCNO 3. +2 CALCNO2 3. +2             00420000
33             CALCNO3 3.;                                                             00430000
34           PUT ;                                                                       00440000
35           PUT @38 'ELEMENT' @51 'WEIGHT FRACTION' @74 'NUMBER DENSITY';               00450000
36           DO I = 1 TO 17;                                                             00460000
37             PUT @40 ELEMS(I) $2. @54 WEIGHTS(I) 8.5 @75 NUMS(I) E12.;                 00470000
38           END;                                                                        00480000
39           PUT;                                                                        00490000
40           PUT @26 'COMMENTS: ' COMMENTS $69.;                                         00500000
41           PUT @36 COMMENT2 $69.;                                                      00510000
42           PUT @36 COMMENT3 $69.;                                                      00520000
43         RETURN;                                                                       00530000
44         TOPPAGE:                                                                      00540000
45           PUT ;                                                                       00550000
```

```
46          PUT @53 'ACTIVATION ANALYSIS DATA';                          00560000
47          PUT ;                                                        00570000
48          PUT ;                                                        00580000
49        RETURN;                                                        00590000

NOTE: AT LEAST ONE W.D FORMAT WAS TOO SMALL FOR THE NUMBER TO
      BE PRINTED. THE DECIMAL POINT MAY BE SHIFTED BY THE
      'BEST' FORMAT.
NOTE: 969 LINES WERE WRITTEN TO FILE PRINT.
NOTE: DATA SET WORK.TEMP HAS 26 OBSERVATIONS AND 97 VARIABLES. 28 OBS/TRK.
NOTE: THE DATA STATEMENT USED 0.20 SECONDS AND 776K AND PRINTED PAGES 1 TO 26.
NOTE: SAS USED 776K MEMORY.

NOTE: SAS INSTITUTE INC.
      SAS CIRCLE
      PO BOX 8000
      CARY, N.C. 27512-8000
```

FORM (A)292-12-3546

ACTIVATION ANALYSIS DATA

COMPONENT: HASTELLOY-X CANS
LOCATION: B FIXED OR REMOVABLE: R
DESC: BORONATED CANS IN BOTTOM REFLECTORS (NON CONTROL ROD ONLY)
TUBES ONLY - DOES NOT INCLUDE END CAPS
REF DWGS; 90R1701-274, ISSUE E 90R1701-272
-355
-350
-460
-275
COMPOSITION REF: AMS-5588B
COMPONENT VOLUME (CM**3):
4.13000E+00 ONE CAN
8.28520E+04 TOTAL CORE
.
.
COMPONENT DENSITY (G/CM2):
8.23000E+00 MET HAND
.
CALCULATION NUMBERS: C05 V03

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
CR	0.22000	2.09700E+22
NI	0.49000	4.13700E+22
CO	0.01500	1.26200E+21
MO	0.09000	4.65000E+21
W	0.00600	1.61800E+20
AL	0.02000	3.67400E+21
FE	0.15800	1.40200E+22
C	0.00150	6.19000E+20
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COMMENTS:

ACTIVATION ANALYSIS DATA

COMPONENT: REFLECTOR BLOCK KEY
LOCATION: FIXED OR REMOVABLE:
DESC: KEY FOR THE CORE BARREL AND LARGE METAL CLAD SIDE REFLECTOR

REF DWGS; R1105-705 SHTS 1&2

COMPOSITION REF: ASME-SA201GB
COMPONENT VOLUME (CM**3):
1.59090E+04 ONE KEY
3.81816E+05 24 TOTAL CORE

COMPONENT DENSITY (G/CM2):
7.85000E+00 MET HAND

CALCULATION NUMBERS: C06 V06

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
C	0.00280	1.10200E+21
MN	0.01035	8.99700E+20
P	0.00035	5.34300E+19
S	0.00040	5.89900E+19
SI	0.00283	4.76400E+20
FE	0.98307	8.32300E+22
CO	0.00020	1.60500E+19

COMMENTS:

ACTIVATION ANALYSIS DATA

COMPONENT: TOP REFLECTOR CR
LOCATION: FIXED OR REMOVABLE:
DESC: METAL CLAD TOP REFLECTOR FOR A CONTROL ROD REGION
METAL SHELL ONLY - ONLY PRIMARY PLATES NOT INNER TUBES
REF DWGS; 90R1701-318,ISSUE E

COMPOSITION REF: SST347 (ASTM-A240)
COMPONENT VOLUME (CM**3):
3.00690E+03 ONE ELE - PRIM PLATE .
1.11255E+05 37 TOT CORE PRI PLAT .
9.64500E+03 TOTAL METAL .
2.04200E+03 GRANULE VOLUME .
COMPONENT DENSITY (G/CM2):
7.8000[illegible]E+00 MET HAND .
. .
CALCULATION NUMBERS: C03 V07

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
C	0.00080	3.12900E+20
MN	0.02000	1.71000E+21
P	0.00045	6.82500E+19
S	0.00030	4.39600E+19
SI	0.01000	1.67300E+21
CR	0.18000	1.62600E+22
NI	0.11000	8.80200E+21
NB	0.01000	5.05700E+20
FE	0.66645	5.60600E+22
CO	0.00200	1.59400E+20
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COMMENTS: NUMBER DENSITIES FOR PRIMARY PLATES ONLY (TOP,MIDDLE,BOTTOM,SIDES)
NOT FOR INNER TUBES

ACTIVATION ANALYSIS DATA

COMPONENT: BORONATED RODS
LOCATION: FIXED OR REMOVABLE:
DESC: BORONATED RODS IN SIDE REFLECTOR BLOCKS

REF DWGS; 90R1701-850,ISSUE F
90R1701-830,ISSUE F
-829,ISSUE H
-819,ISSUE F
REFERENCE SPECIFICATION: 17-R-12
COMPOSITION REF: AISI-304
COMPONENT VOLUME (CM**3):
1.81900E+03 ONE ROD
5.63512E+06 309792 TOTAL CORE
.
.
COMPONENT DENSITY (G/CM2):
7.90000E+00 MET HAND
.
CALCULATION NUMBERS: C.2 V01

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
C	0.00080	3.16900E+20
MN	0.02000	1.73200E+21
SI	0.01000	1.69400E+21
CR	0.19000	1.73900E+22
NI	0.09250	7.49700E+21
P	0.00045	6.91300E+19
S	0.00030	4.45200E+19
N	0.00100	3.39700E+20
B	0.02250	9.90400E+21
FE	0.65045	5.62700E+22
CO	0.00200	1.61500E+20
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COMMENTS:

FORM (A)292-12-3546

ACTIVATION ANALYSIS DATA

COMPONENT: LARGE SIDE REFLECTOR METAL JACKET
LOCATION: FIXED OR REMOVABLE:
DESC: METAL JACKET FOR KEYED LARGE SIDE REFLECTOR (TYPE 1 - TYPICAL)

REF DWGS; R1701-701
-711
-710

COMPOSITION REF: SA387 GRC (GRC=GR11 PER TELECON W/ E DUPONT, QA)
COMPONENT VOLUME (CM**3):
1.61780E+03 ONE ELEMENT
3.88272E+05 24 TOTAL CORE

COMPONENT DENSITY (G/CM2):
7.86000E+00 MET HAND

CALCULATION NUMBERS: V10 C07

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
C	0.00170	6.70000E+20
MN	0.00525	4.52400E+20
P	0.00035	5.34900E+19
S	0.00040	5.90650E+19
SI	0.00650	1.09600E+21
CR	0.01250	1.13800E+21
MO	0.00550	2.71400E+20
FE	0.96760	8.20200E+22
CO	0.00020	1.60700E+19

COMMENTS:

FORM (A)292.12-3546

ACTIVATION ANALYSIS DATA

COMPONENT: PCRV LINER
LOCATION: FIXED OR REMOVABLE:
DESC: PCRV LINER AND COOLING TUBES HOMOGENOUS MIX

REF DWGS; SYSTEM DESCRIPTION SD-11-2 PAGE 5 OF 7
R1102-300 REV F
R1102-200 REV M
R1102-100 REV D

COMPOSITION REF: A537 GRB (LINER) , A537 (TUBES)
COMPONENT VOLUME (CM**3):
1.60000E+06 TOP HEAD
7.00000E+06 SIDEWALL
1.39000E+06 CSF (TOP)
9.65000E+05 CSF (SIDES)
COMPONENT DENSITY (G/CM2):
7.86000E+00 TYP FOR CARBON STEEL

CALCULATION NUMBERS: VC1 VC- 10

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
C	0.00240	9.45900E+20
MN	0.01310	1.12900E+21
P	0.00035	5.34900E+19
S	0.00040	5.90700E+19
SI	0.00333	5.61300E+20
CU	0.00365	2.71900E+20
NI	0.00265	2.13700E+20
CR	0.00270	2.45800E+20
MO	0.00085	4.19400E+19
FE	0.97037	8.22600E+22
CO	0.00020	1.60700E+19

COMMENTS: THE COMP OF THE LINER & COOLING TUBES ARE CLOSE (TUBES - SA106 GRB)
SO THE MIXTURE WAS ASSUMED TO BE ALL A537

ACTIVATION ANALYSIS DATA

COMPONENT: CORE BARREL TOP
LOCATION: FIXED OR REMOVABLE:
DESC: TOP PORTION OF CORE BARREL (TOP 12' - 2.25")

REF DWGS; R1105-505 REV D
R1100-500 REV K

COMPOSITION REF: ASMESA201 GRB (ASTM 515/516)
COMPONENT VOLUME (CM**3):
5.50850E+06 TOP
.
.
.
COMPONENT DENSITY (G/CM2):
7.85000E+00 MET HAND
.
CALCULATION NUMBERS: C08 V04

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
C	0.00300	1.18100E+21
MN	0.01035	8.90700E+20
P	0.00035	5.34300E+19
S	0.00040	5.89900E+19
SI	0.00283	4.76400E+20
FE	0.98305	8.32300E+22
CO	0.00020	1.69500E+19
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COMMENTS:

ACTIVATION ANALYSIS DATA

COMPONENT: CORE BARREL BOTTOM/MIDDLE
LOCATION: FIXED OR REMOVABLE:
DESC: BOTTOM OF CORE BARREL
MIDDLE 8'- 2.50", BOTTOM 9' - 2.75"
REF DWGS; R1105-505 REVD

COMPOSITION REF: ASMESA387 GB
COMPONENT VOLUME (CM**3):
4.08350E+06 MIDDLE
5.05720E+06 BOTTOM
.
.
COMPONENT DENSITY (G/CM3):
7.86090E+00 MET HAND
.
CALCULATION NUMBERS: COR V04

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
C	0.00170	6.70000E+20
MN	0.00525	4.52400E+20
P	0.00035	5.34900E+19
S	0.00040	5.90700E+19
SI	0.00225	8.29300E+20
CR	0.00975	6.87700E+20
MO	0.00525	2.59100E+20
FE	0.97485	8.26400E+22
CO	0.00020	1.60700E+19
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COMMENTS:

FORM (A)792-12-3546

ACTIVATION ANALYSIS DATA

COMPONENT: RCD-PRIMARY
LOCATION: FIXED OR REMOVABLE:
DESC: REGION CONSTRAINT DEVICE ON TOP OF TOP REFLECTORS
PRIMARY STRUCTURE ONLY - PINS ON A SEPARATE OBSERVATION
REF DWGS; 90R1701-874 ISSUE C
-873 ISSUE D
-872 ISSUE B
-871 ISSUE B
-870 ISSUE A
COMPOSITION REF: SA515 GR70
COMPONENT VOLUME (CM**3):
1.00210E+04 ONE DEVICE
8.41738E+05 84 TOTAL CORE
.
.
COMPONENT DENSITY (G/CM2):
7.85000E+00 MET HAND
.
CALCULATION NUMBERS: C01 V11

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
C	0.00350	1.37800E+21
MN	0.01250	1.07600E+21
P	0.00035	5.34300E+19
S	0.00040	5.89900E+19
SI	0.00280	4.71400E+20
FE	0.98025	8.29900E+22
CO	0.00020	1.60500E+19

COMMENTS:

ACTIVATION ANALYSIS DATA

COMPONENT: TOP REFLECTOR NCR
LOCATION: FIXED OR REMOVABLE:
DESC: TOP METAL CLAD REFLECTOR FOR A NON CONTROL ROD REGION, ALSO SAME COMP FOR METAL CLAD SIDE REFLECTOR AND REFLECTOR KEYS
REF DWGS; 90R1701-310 ISSUE J 90R1701-340 ISS ?
90R1701-320 ? -347 F
90R1701-327 E -324 D
90R1701-150 H

COMPOSITION REF: ASTMA387 GRD (GRD=GR22 PER TELECON W/ E DUPONT, DA)
COMPONENT VOLUME (CM**3):

6.70500E+03 ONE ELE,COOL, PRI PT	6.66100E+03 ONE ELE,SIDE, PRI PT
1.40805E+06 210 TOT CORE, ", "	4.39626E+05 COR TOT, SIDE, PP
8.65200E+03 TOT ME:, 1 ELE, COOL	.
5.51000E+03 TOTAL B GRANULES	.

COMPONENT DENSITY (G/CM2):

7.86000E+00 MET HAND	.
.	.

CALCULATION NUMBERS: C04 V08 V09

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
C	0.00150	5.91200E+20
MN	0.00450	3.87800E+20
P	0.00035	5.34900E+19
S	0.00035	5.16800E+19
SI	0.00500	8.42800E+20
CR	0.02250	2.04900E+21
MO	0.01000	4.93400E+20
FE	0.95560	8.10000E+22
CO	0.00020	1.60700E+19
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COMMENTS:

ACTIVATION ANALYSIS DATA

COMPONENT: RCD PINS
LOCATION: FIXED OR REMOVABLE:
DESC: REGION CONSTRAINT DEVICE PINS

REF DWGS; 90R1701-872 ISSUE B

COMPOSITION REF: ASME-SA637 GRADE [illegible] (UNS 0778)
COMPONENT VOLUME (CM**3):
4.21000E+02 ONE PIN
1.26300E+03 PER RCD
1.06087E+05 84 TOTAL CORE

COMPONENT DENSITY (G/CM2):
8.19000E+02 TELE W/ INCO

CALCULATION NUMBERS: VC2

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
C	0.00080	3.28600E+20
MN	0.00350	3.14300E+20
SI	0.00350	6.14700E+20
P	0.00015	2.38900E+19
S	0.00015	2.39800E+19
CR	0.19000	1.80300E+22
CO	0.01000	8.37000E+20
NB	0.05130	2.72400E+21
TI	0.00900	9.27200E+20
B	0.00006	2.73800E+19
CU	0.00300	2.32900E+20
NI	0.51500	4.32900E+22
FE	0.21360	1.88700E+22

COMMENTS: DENSITY REF - TELECON W/ MR. BREITZIG, INCO.

ACTIVATION ANALYSIS DATA

COMPONENT: INSULATION AND COVER PLATES / CSF
LOCATION: FIXED OR REMOVABLE:
DESC: HOMOGENOUS MIXTURE OF COVER PLATES AND KAOWOOL ON THE TOP OF THE CSF - THIS DOES NOT INCLUDE THE SILICA FOAM BRICKS
REF DWGS; 90-R1104-900

COMPOSITION REF: AISI1020 (CVPL),INCONEL 600 (FAST), GAMD-9074 (KAO)
COMPONENT VOLUME (CM**3):
3.23900E+06 COMPOSITE MIXTURE

COMPONENT DENSITY (G/CM2):
7.48000E-01

CALCULATION NUMBERS: VC8

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
O	.	3.25300E+21
AL	.	9.19500E+20
SI	.	8.98700E+20
FE	.	8.49900E+21
TI	.	2.21100E+19
CA	.	1.85300E+18
NA	.	6.70800E+18
B	.	2.38900E+18
C	.	8.01700E+19
MN	.	4.01700E+19
P	.	6.15900E+18
S	.	7.46400E+18
CO	.	2.64400E+18
NI	.	7.55700E+19
CR	.	1.80300E+19
CU	.	4.76100E+17

COMMENTS:

FORM (A)292-12-3546

ACTIVATION ANALYSIS DATA

COMPONENT: INSULATION AND COVER PLATE - PCRV TOP HEAD
LOCATION: FIXED OR REMOVABLE:
DESC: HOMOGENOUS MIXTURE OF COVER PLATES, INSULATION AND FASTENERS FOR THE PCRV TOP HEAD
REF DWGS; 90-1104-104
90-1104-250

COMPOSITION REF: KAOWOOL (GAMD-9074),AISI1020 (CVP[illegible]), NITRIDED C STEEL (FAST)
COMPONENT VOLUME (CM**3):
8.33500E+06 TOTAL FOR COMP

COMPONENT DENSITY (G/CM2):
1.16000E+00 CALCUALTED

CALCULATION NUMBE[illegible]: VC4

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
AL	.	8.94300E+20
SI	.	8.73100E+20
FE	.	1.06700E+22
TI	.	2.15100E+19
CA	.	1.80300E+18
NA	.	6.52400E+18
B	.	2.32300E+18
O	.	3.16400E+21
C	.	9.98400E+19
MN	.	4.91200E+19
P	.	7.74300E+18
S	.	9.34900E+18
CO	.	2.03400E+18

COMMENTS:

FORM (A)232.12-3546

ACTIVATION ANALYSIS DATA

COMPONENT: INSULATION AND COVER PLATE - PCRV SIDES
LOCATION: FIXED OR REMOVABLE:
DESC: COMPOSITE KAOWOOL, COVER PLATE AND FASTENERS FOR THE PCRV SIDES

REF DWGS; 90-R1104-101
90-R1104-230

COMPOSITION REF: AISI1020(CVPL),KAOWOOL(GAMD-9374),NITRIDED C STEEL (FAST)
COMPONENT VOLUME (CM**3):
3.00500E+07 TOTAL COMP

COMPONENT DENSITY (G/CM2):
1.33000E+00 CALCULATED

CALCULATION NUMBERS: VC3

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
AL	.	6.72200E+20
SI	.	8.51400E+20
FE	.	1.24800E+22
TI	.	2.09700E+19
CA	.	1.75800E+18
NA	.	6.36300E+18
B	.	2.26600E+18
O	.	3.06800E+21
C	.	1.16800E+20
MN	.	5.74600E+18
P	.	9.05800E+18
S	.	1.09400E+19
CO	.	2.38000E+18

COMMENTS:

FORM (A)292-12-3546

ACTIVATION ANALYSIS DATA

COMPONENT: CORE SUPPORT FLOOR POST SEATS
LOCATION: FIXED OR REMOVABLE: F
DESC: POST SEATS FOR GRAPHITE CORE SUPPORTS POSTS SETTING ON TOP OF CSF

REF DWGS; R1100-700
R1104-1596

COMPOSITION REF: INCONEL 600 (SMALL AMOUNT OF CARBON STEEL AT BASE NEGLECTED)
COMPONENT VOLUME (CM**3):
8.60000E+04 TOTAL FOR ALL 183 SL

COMPONENT DENSITY (G/CM2):
8.47000E+00

CALCULATION NUMBERS: VC5

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
NI	0.75000	6.52000E+22
CR	0.15500	1.52000E+22
FE	0.08000	7.31000E+21
C	0.00150	6.37000E+20
MN	0.00100	9.29000E+19
S	0.00015	2.39000E+19
SI	0.00500	9.08000E+20
CU	0.00500	4.01000E+20
CO	0.00200	1.73000E+20

COMMENTS:

ACTIVATION ANALYSIS DATA

COMPONENT: PCRV CONCRETE AND REBAR (OBS 1 OF 4)
LOCATION: FIXED OR REMOVABLE: F
DESC: HOMOGENOUS MIXTURE OF CONCRETE AND REBAR

REF DWGS: R1102-100 REV D
FSAR SECTION 5.5.2.2

COMPOSITION REF: A431,A432,A305 (REBAR); NUREG/CR-3473 PG 53 (CONCRETE)
COMPONENT VOLUME (CM**3):

1.44000E+07	TYP TOP LAYER	5.37000E+07	4TH 6" SIDE LAYER
4.90000E+07	1ST 6" SIDE LAYER	5.53000E+07	5TH 6" SIDE LAYER
5.06000E+07	2ND 6" SIDE LAYER	5.68000E+07	6TH 6" SIDE LAYER
5.22000E+07	3RD 6" SIDE LAYER	5.84000E+07	7TH 6" SIDE LAYER

COMPONENT DENSITY (G/CM2):

3.49200E+00	CALCULATED: (2%)	2.40000E+00	CONCRETE
	(.2)(7.86)+(.8)(2.4)	7.86000E+00	REBAR

CALCULATION NUMBERS: VC6

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
H	.	1.59000E+22
O	.	4.30000E+22
NA	.	1.38000E+21
MN	.	5.13600E+20
AL	.	3.42900E+21
SI	.	1.05600E+22
K	.	2.58800E+20
CA	.	4.47200E+21
FE	.	3.00000E+21
S	.	5.98000E+19
P	.	3.15200E+20
CU	.	4.44000E+18
B	.	1.34800E+18
CO	.	1.21500E+18
N	.	6.99000E+18
CL	.	2.62000E+18
SC	.	3.79000E+17

COMMENTS: VOLUMES BROKE IN 6" LAYERS

ACTIVATION ANALYSIS DATA

COMPONENT: PCRV CONCRETE AND REBAR (OBS 2 OF 4)
LOCATION: FIXED OR REMOVABLE:
DESC:

REF DWGS;

COMPOSITION REF:
COMPONENT VOLUME (CM**3):
8.99000E+07 TOTAL CSF VOLUME

COMPONENT DENSITY (G/CM2):

CALCULATION NUMBERS:

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
TI	.	1.24000E+20
LI	.	1.17000E+16
V	.	6.00000E+18
CR	.	6.35000E+18
NI	.	5.71000E+17
ZN	.	4.37000E+18
GA	.	5.13000E+17
	.	.
AS	.	4.61000E+17
SE	.	5.36000E+16
BR	.	1.40000E+17
RB	.	2.04000E+18
SR	.	2.55000E+19
Y	.	1.06000E+18
ZR	.	4.14000E+18
	.	.
	.	.

COMMENTS:

ACTIVATION ANALYSIS DATA

COMPONENT: PCRV CONCRETE AND REBAR (OBS 3 OF 4)
LOCATION: FIXED OR REMOVABLE:
DESC:

REF DWGS;

COMPOSITION REF:
COMPONENT VOLUME (CM**3):
. .
. .
. .
. .
COMPONENT DENSITY (G/CM2):
. .
. .
CALCULATION NUMBERS:

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
NB	.	2.51000E+17
MO	.	6.00000E+17
PD	.	1.75000E+17
AG	.	1.17000E+16
CD	.	1.75000E+16
SN	.	4.08000E+17
SB	.	1.05000E+17
CS	.	7.58000E+16
BA	.	5.54000E+19
C	.	3.16000E+19
LA	.	7.58000E+17
CE	.	1.42000E+18
SM	.	1.17000E+17
EU	.	3.21000E+16
	.	.
	.	.
	.	.

COMMENTS:

ACTIVATION ANALYSIS DATA

COMPONENT: PCRV CONCRETE AND REBAR (OBS 4 OF 4)
LOCATION: FIXED OR REMOVABLE:
DESC:

REF DWGS;

COMPOSITION REF:
COMPONENT VOLUME (CM**3):
.
.
.
.
COMPONENT DENSITY (G/CM2):
.
.
CALCULATION NUMBERS:

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
LU	.	1.57000E+16
HF	.	1.28000E+17
TA	.	2.57000E+16
W	.	8.16000E+16
PB	.	3.56000E+18
TH	.	2.04000E+17
U	.	1.57000E+17
O	.	3.18000E+22
	.	.
	.	.
	.	.
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	.	.
	.	.
	.	.

COMMENTS:

FORM GA1292-12 3546

ACTIVATION ANALYSIS DATA

COMPONENT: STEAM GENERATOR
LOCATION: FIXED OR REMOVABLE: R?
DESC: INCLUDES SUPERHEATER II, REHEATER AND THEIR CENTRAL SUPPORT STRUCTURE

REF DWGS; 22-B-001-0076
-0077
-0078
-0087
-0102
COMPOSITION REF: INCOLOY 800 (ASSUMED FOR ALL INCLUDED PARTS)
COMPONENT VOLUME (CM**3):
1.48000E+07 TOT FOR TUBES & SUP
.
.
.
COMPONENT DENSITY (G/CM2):
7.94000E+00 PER TELE W/QA
.
CALCULATION NUMBERS: VC7

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
NI	0.32500	2.65000E+22
CR	0.21000	1.93000E+22
FE	0.43700	3.74000E+22
C	0.00100	3.98000E+20
MN	0.00015	1.31000E+19
SI	0.01000	1.70000E+21
CU	0.00750	5.64000E+20
AL	0.00380	6.74000E+20
TI	0.00380	3.80000E+20
CO	0.00200	1.62000E+20
.	.	.
.	.	.
.	.	.
.	.	.
.	.	.
.	.	.
.	.	.

COMMENTS:

FORM (A)292.12.3546

ACTIVATION ANALYSIS DATA

COMPONENT: CORE BARREL KEYS
LOCATION: FIXED OR REMOVABLE:
DESC: KEYS THE CORE BARREL AND LINER TOGETHER

REF DWGS; R1100-500
R1100-504
R1100-506

COMPOSITION REF: ASTM A387 GRB (COMP PER TELE W/ E DUPONT QA)
COMPONENT VOLUME (CM**3):
1.90000E+06 24 TOTAL KEYS

COMPONENT DENSITY (G/CM2):
7.85000E+00

CALCULATION NUMBERS: VC9

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
C	0.00170	6.69200E+20
MN	0.00530	4.56100E+20
P	0.00035	5.34200E+19
S	0.00040	5.89800E+19
SI	0.00230	3.87200E+20
CR	0.00980	8.90900E+20
MO	0.00530	2.61200E+20
CO	0.00020	1.60400E+19
FE	0.97470	8.25100E+22

COMMENTS:

FORM (A)292-12-3546

ACTIVATION ANALYSIS DATA

COMPONENT: ORIFICE VALVE
LOCATION: FIXED OR REMOVABLE:
DESC: ORIFICE VALVE AND LOWER GUIDE TUBE

REF DWGS; D1201-500

COMPOSITION REF: ASTM A53 TYPE S GR B (ASSUMED AS TYPICAL FOR ALL)
COMPONENT VOLUME (CM**3):
1.59280E+06 37 TOTAL CORE

COMPONENT DENSITY (G/CM2):
7.85000E+00 ASTM

CALCULATION NUMBERS: VC- 11

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
C	0.00300	1.18100E+21
MN	0.01200	1.03300E+21
P	0.00050	7.63200E+19
S	0.00060	8.84700E+19
CO	0.00020	1.60400E+19
FE	0.98370	8.32800E+22

COMMENTS:

ACTIVATION ANALYSIS DATA

COMPONENT: SILICA BLOCKS - CSF
LOCATION: FIXED OR REMOVABLE:
DESC: THREE 3" LAYERS OF SILICA BLOCKS , TWO DIFFERENT DENSITIES - ONE COMPOSITE DENSITY ASSUMED
REF DWGS; 90-R1104-900

COMPOSITION REF: MASSROCK & GLASSROCK FOAM (FSAR)
COMPONENT VOLUME (CM**3):
9.51700E+06 COMPOSITE MIXTURE

COMPONENT DENSITY (G/CM2):
1.17700E+00 COMPOSITE MIXTURE

CALCULATION NUMBERS: VC- 12

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
O	.	2.35800E+22
SI	.	1.17600E+22
FE	.	1.02500E+19
TI	.	1.33900E+19
CA	.	1.12200E+18
NA	.	4.06100E+18
B	.	1.44600E+18

COMMENTS:

ACTIVATION ANALYSIS DATA

COMPONENT: LARGE SIDE REFLECTOR - HLM GRAPHITE
LOCATION: FIXED OR REMOVABLE: F
DESC: HLM GRAPHITE IS USED IN THE LARGE PERMANENT SIDE REFLECTORS

REF DWGS; GRAPHITE DATA AND IMPURITY DATA COME FROM GA

COMPOSITION REF: GRAPHITE DESIGN MANUAL,GA DOC 906374,ISS A,8/84,PROPRIETORY
COMPONENT VOLUME (CM**3):
4.68100E+07 PCRV TOTAL VOL FROM FSAR TAB 3.3-1
1.95000E+06 AV PER BLK(24 TOTAL)

COMPONENT DENSITY (G/CM2):
1.80000E+00 GRAPH DESIGN MAN

CALCULATION NUMBERS:

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
B	5.00000	5.36170E+17
FE	3630	7.04680E+19
V	76.00000	1.61740E+18
TI	71.00000	1.60760E+18
CA	354	9.57600E+18
SI	118	4.55500E+18
AL	82.00000	3.29480E+18
BA	45.00000	3.55250E+17
S	69.00000	2.33290E+18
LI	4.00000	6.24770E+17

COMMENTS:

ACTIVATION ANALYSIS DATA

COMPONENT:
LOCATION: FIXED OR REMOVABLE:
DESC:

REF DWGS;

COMPOSITION REF:
COMPONENT VOLUME (CM**3):

COMPONENT DENSITY (G/CM2):

CALCULATION NUMBERS:

ELEMENT	WEIGHT FRACTION	NUMBER DENSITY

COMMENTS:

ACTIVATION ANALYSIS DATA

COMPONENT: CORE SUPPORT BLOCKS -PGX GRAPHITE
LOCATION: FIXED OR REMOVABLE: F
DESC: CORE SUPPORT BLOCKS ARE JUST ABOVE CORE SUPPORT POSTS

REF DWGS;

COMPOSITION REF: GRAPHITE DESIGN MANUAL GA DOC 906374 (PROPIETARY)
COMPONENT VOLUME (CM**3):

4.17780E+05	IRREGULAR BLOCK	
4.69280E+05	HEXAGONAL BLOCK	
24	IRREC BLCK	37 HEXAGONAL BLKS
2.73900E+07	TOTAL VOLUME CSB	

COMPONENT DENSITY (G/CM2):

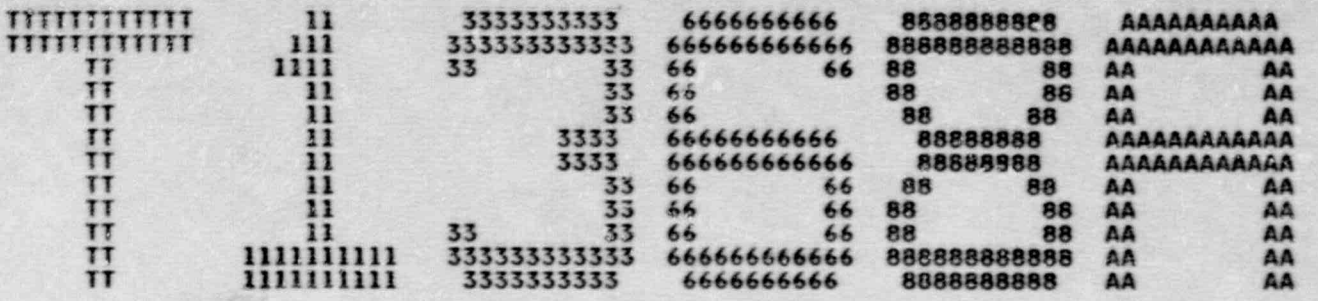
1.76000E+00	GRAPHITE DESIGN MAN

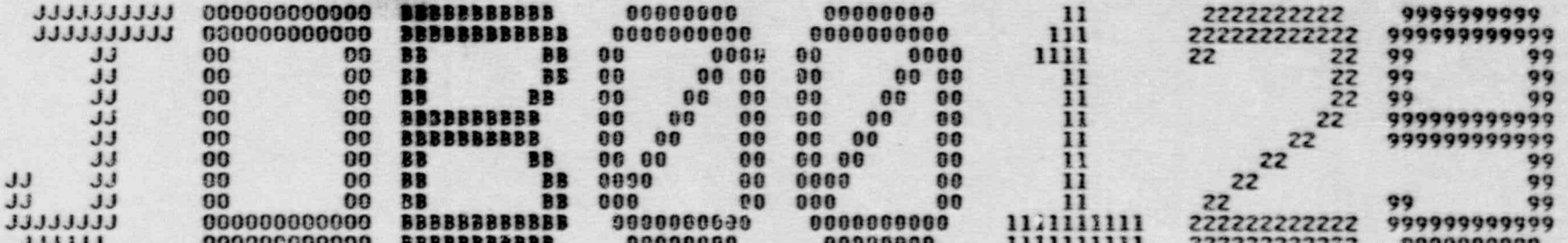
CALCULATION NUMBERS:

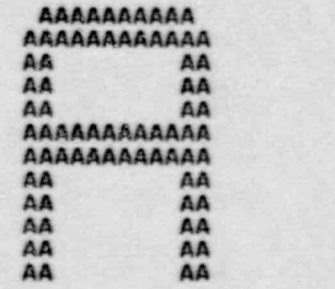
ELEMENT	WEIGHT FRACTION	NUMBER DENSITY
B	4.00000	3.92210E+17
FE	3686	6.99650E+19
V	27.00000	5.61850E+17
TI	54.00000	1.19550E+18
CA	368	9.73350E+18
SI	120	4.52920E+18
AL	128	5.02890E+18
S	601	1.98686E+19
LI	4.00000	6.10890E+17

COMMENTS: WEIGHT FRACTIONS ARE IN PPM

FORM (A)292-12-3546







```
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
*END   JOB00129 T1368A  1       001 001 LOCAL   1368 VW DIAMOND HILL ROOM      9.00.19 AM 11 JUL 89 PRT15    DDDD END   A*
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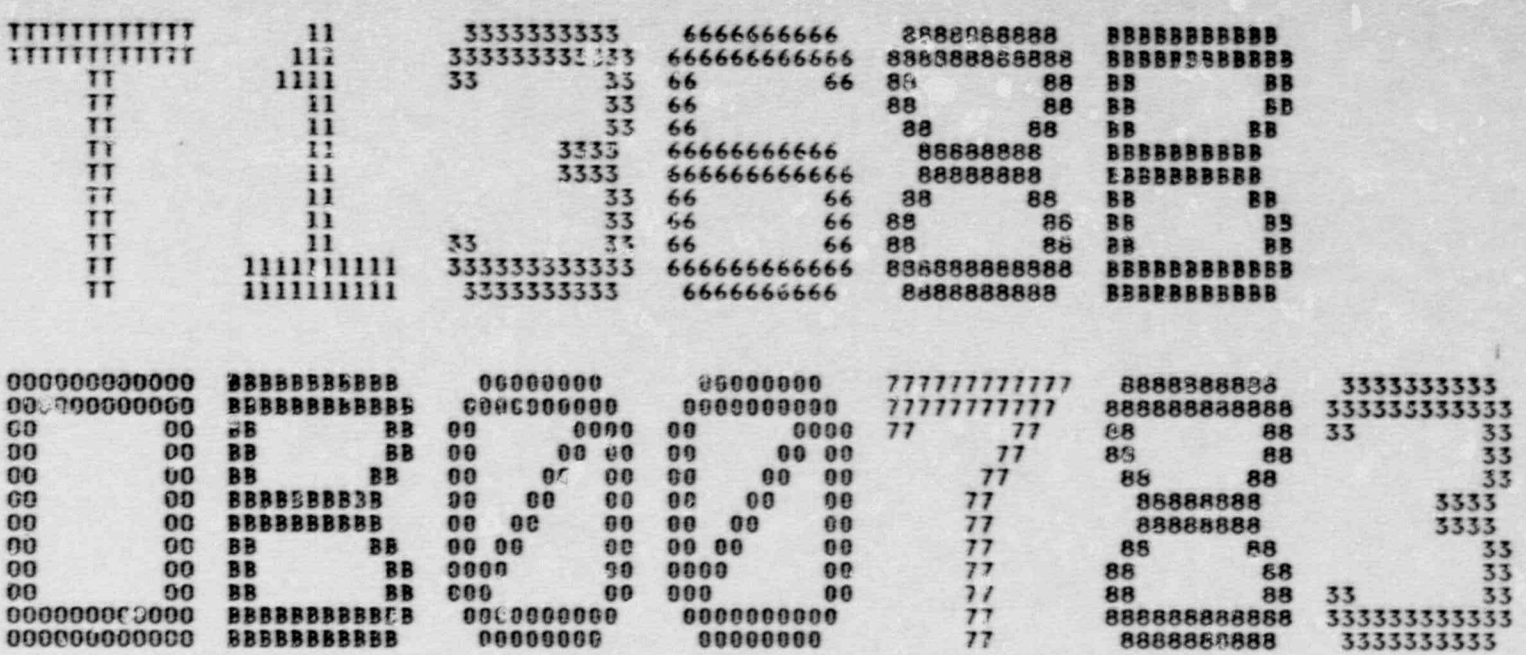
```

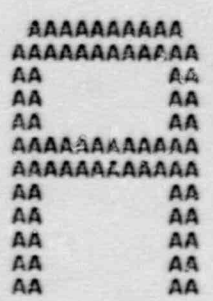
Appendix C
EE-DEC-0010

Detailed Component Curie Inventory

FORM (A)292-12-3546



Dia Hill
1368



```
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
*START JOB00783 T1368B   1        001 001 LOCAL    DIA HILL 1368 WALKER ROOM      8.55.47 AM 11 JUL 89 PRT15    DDDD START A*
```

Appendix C
EE-DEC-0010

```
-------- JOB00783  IEF097I TI368B   - USER T8284     ASSIGNED
08.55.40 JOB00783  TSS701I T8284     LAST-USED 11 JUL 89 08:48 SYSTEM DDDD FACILITY=TSO
08.55.40 JOB00783  TSS702I CONNT=03531  MODE=WARN  LOCKTIME=NONE  NAME=FISHER, STEVE
08.55.40 JOB00783  $HASP373 TI368B   STARTED - INIT 61 - CLASS A  - SYS DDDD
08.55.46 JOB00783  * TI368B    001          IEBGENER    ---------- R000
08.55.46 JOB00783  * TI368B      1     4707      4.79   ---------- EOJ
08.55.46 JOB00783  $HASP395 TI368B   ENDED
```

------ JES2 JOB STATISTICS ------

11 JUL 89 JOB EXECUTION DATE

21 CARDS READ

5,000 SYSOUT PRINT RECORDS

0 SYSOUT PUNCH RECORDS

634 SYSOUT SPOOL KBYTES

0.11 MINUTES EXECUTION TIME

FORM (A)242 12-3546

```
1 //T1368B JOB (12,4840-63-54-R0104741),'DIA HILL 1368 WALKER',          JOB00783
  //          MSGLEVEL=(1,1),MSGCLASS=A,CLASS=A,NOTIFY=T1368
2 //TMOUP OUTPUT CHARS=GT18,PAGEDEF=MP120,PRMODE=PAGE,DEFAULT=YES,
  //              JESDS=ALL
  ***JOBPARM LINES=50
3 //        EXEC PGM=IEBGENER
4 //SYSPRINT      DD   SYSOUT=*
5 //SYSIN  DD     DUMMY
  ***SYSUT2 DD  SYSOUT=*,DCB=(RECFM=FB,LRECL=80,BLKSIZE=6160),COPIES=01
  ***SYSUT2 DD  DUMMY NEXT FOR LIST FILE
  ***SYSUT2 DD  SYSOUT=*,DCB=(RECFM=VBA,LRECL=137,BLKSIZE=141),COPIES=01
  ***SYSUT2 DD  DUMMY NEXT FOR FUELS FICHE
6 //SYSUT2 DD  SYSOUT=*,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=6118),COPIES=01
  ***SYSUT2 DD  DUMMY NEXT FOR  OUTLIST OR ORECA FILE
  ***SYSUT2 DD  SYSOUT=*,DCB=(RECFM=FBA,LRECL=133,BLKSIZE=3059),COPIES=01
  ***SYSUT2 DD  DUMMY NEXT FOR DATAL FILE
  ***SYSUT2 DD  SYSOUT=*,DCB=(RECFM=FB,LRECL=132,BLKSIZE=3300),COPIES=01
  ***SYSUT2 DD  DUMMY NEXT FOR POWHST FILE
  ***SYSUT2 DD  SYSOUT=*,DCB=(RECFM=VBA,LRECL=170,BLKSIZE=6233),COPIES=01
  ***SYSUT1 DD  DSN=T8284.FUELS.FICHE(FAAPMY89),DISP=SHR
7 //SYSUT1 DD  DSN=T1368.REBATE.SITEOUT(ALLR4),DISP=SHR
```

FORM (A)292-12-3546

```
IEF[illegible]I T8284    LAST-USED 11 JUL 89 08:48 SYSTEM=DDDD FACILITY=TSO
IEF[illegible]I COUNT=03531  MODE=WARN  LOGTIME=NONE NAME=FISHER, STEVE
IEF[illegible]I ALLOC. FOR T1368B
IEF237I JES2 ALLOCATED TO SYSPRINT
IEF237I DMY  ALLOCATED TO SYSIN
IEF237I JES2 ALLOCATED TO SYSUT2
IEF237I 353  ALLOCATED TO SYSUT1
IEF237I 347  ALLOCATED TO SYS00614
IEF142I T1368B - STEP WAS EXECUTED - COND CODE 0000
IEF285I   JES2.JOB00783.00000101                        SYSOUT
IEF285I   JES2.JOB00783.00000102                        SYSOUT
IEF285I   T1368.REBATE.SITEOUT                          KEPT
IEF285I   VOL SER NOS= TSO413.
IEF285I   CATALOG.TSOCAT1                               KEPT
IEF285I   VOL SER NOS= TSO407.
IEF373I STEP /        / START 89192.0855
IEF374I STEP /        / STOP  89192.0855 CPU    0MIN 00.25SEC SRB    0MIN 00.09SEC VIRT   128K SYS   176K EXT       4K SYS    9044K
********************************** S T E P   T E R M I N A T I O N **********************************
*    JOB   STP   STEP      PGM     STARTED      ENDED       TCB      SRB    ELAPSED   SWAP  CORE   COMP *
*   NAME    0    NAME     NAME      TIME        TIME      SECONDS  SECONDS  SECONDS  COUNT  USED   CODE *
* T1368B   001          IEBGENER 08:55:40.65 08:55:46.09      .25      .09     5.44      0   304K  R000 *
*************************************************************************************************
*                      SWAP    SWAP      VIO      VIO      TCB      I/O      MSO      SRB      TOTAL    *
*  PAGEINS PAGEOUTS  PAGEINS PAGEOUTS  PAGEINS PAGEOUTS    S U      S U      S U      S U       S U     *
*        0        0        0        0        0        0     1563     1640      972      532     4707    *
*************************************************************************************************
IEF375I  JOB /T1368B  / START 89192.0855
IEF376I  JOB /T1368B  / STOP  89192.0855 CPU    0MIN 00.25SEC SRB    0MIN 00.09SEC
********************************** J O B   T E R M I N A T I O N **********************************
*    JOB  PERF   TOTAL    ACTIVE   STARTED      ENDED       TCB      SRB   ELAPSED   TOTAL              *
*   NAME   GRP    S U    SECONDS    TIME        TIME      SECONDS  SECONDS SECONDS   SWAPS              *
* T1368B     1    4707     4.79 08:55:40.65 08:55:46.67      .25      .09     6.02      0               *
*************************************************************************************************
```

FORM (A)292-12-3546

PROCESSING ENDED AT EOF

FORM (A)292-12-3546

COMPONENT : BORONATED STAINLESS STEEL RODS R4
VOLUME : 5.63512E+06 CC
: ABOVE VOLUME IS FOR ALL SS RODS IN THE SPACER BLOCKS BTWN THE
: CORE BARREL AND THE PERMANENT LARGE SIDE REFLECTORS
: TOTAL OF 309792 RODS @ 18.19 CC EACH
: (INTERVALS 46-51 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
LI	3	8	8.40178E-01	1.89890E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00964E-16	2.42138E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	2.23770E-13	2.23769E-13	2.23769E-13	2.23769E-13	2.23768E-13	2.23768E-13	2.23767E-13	2.23766E-13
B	5	12	1.99754E-02	6.24728E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	5.16131E-08	5.15944E-08	5.15819E-08	5.15508E-08	5.14885E-08	5.14263E-08	5.13642E-08	5.12402E-08
AL	13	28	1.38629E+02	1.33196E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	7.45964E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	9.17407E-10	7.88059E-33	3.30539E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	5.66655E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	5.76505E-12	5.77681E-13	1.24627E-13	2.69414E-15	1.25902E-18	5.88371E-22	2.74956E-25	6.00471E-32
V	23	52	2.02084E+02	5.98108E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	1.06055E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	1.05395E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+02	1.88761E-03	2.47417E-15	2.96326E-23	4.65209E-43	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	1.31281E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	6.38651E-17	6.38651E-17	6.38650E-17	6.38649E-17	6.38648E-17	6.38646E-17	6.38644E-17	6.38644E-17
MN	25	54	2.61565E+07	9.61920E-08	7.82651E-09	1.46956E-09	2.24512E-11	5.24014E-15	1.22302E-18	2.85452E-22	1.55500E-29
MN	25	56	9.29152E+03	3.64481E-03	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.24660E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.41348E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	2.98948E-03	1.34511E-03	7.87936E-04	2.07705E-04	1.44326E-05	1.00288E-06	6.96867E-08	3.36478E-10
FE	26	59	3.89409E+06	3.10209E-05	1.48948E-12	1.96765E-17	1.24812E-29	5.02151E-54	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	1.05082E-19	1.05080E-19	1.05078E-19	1.05075E-19	1.05067E-19	1.05060E-19	1.05053E-19	1.05038E-19
FE	26	61	3.60001E+02	1.03108E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	3.35316E-11	0.00000E+00	3.18293E-12	3.02137E-14	2.72239E-18	2.45298E-22	2.21027E-26	1.79447E-34
CO	27	58	6.13405E+06	1.96096E-07	4.42970E-12	3.53984E-15	6.38997E-23	2.08217E-38	6.78474E-54	2.21081E-69	0.00000E+00
CO	27	60	1.65983E+08	4.94377E-04	3.32934E-04	2.55795E-04	1.32351E-04	3.54317E-05	9.48547E-06	2.53937E-06	1.81995E-07
CO	27	61	5.94007E+03	1.56272E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	3.23588E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	7.99999E+01	2.82146E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	1.42130E-07	1.42126E-07	1.42123E-07	1.42117E-07	1.42105E-07	1.42093E-07	1.42080E-07	1.42056E-07
NI	28	63	2.90020E+09	2.02366E-05	1.97839E-05	1.94877E-05	1.87665E-05	1.74031E-05	1.61365E-05	1.49663E-05	1.28708E-05
			TOTAL (CURIES/CC)	9.07397E-03	1.69603E-03	1.06341E-03	3.59014E-04	6.74610E-05	2.68207E-05	1.77685E-05	1.32466E-05
			TOTAL (CURIES)	5.11329E+04	9.55730E+03	5.99246E+03	2.02308E+03	3.80151E+02	1.51138E+02	1.00139E+02	7.46450E+01

COMPONENT : CORE BARREL - MIDDLE AND BOTTOM R4
VOLUME : 9.14100E+06 CC
: ABOVE VOLUME IS FOR THE LOWER 17 FEET OF THE CORE BARREL
: BOTTOM 9 FT - 2.75" THICK
: MIDDLE 8 FT - 2.50" THICK
: (INTERVALS 52-54 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
AL	13	28	1.38629E+02	2.35536E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	4.20397E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	8.84228E-10	7.59558E-33	3.18585E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	2.43035E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	2.52715E-13	2.53230E-14	5.46308E-15	1.18099E-16	5.51906E-20	2.57916E-23	1.20529E-26	2.63220E-33
V	23	52	2.02084E+02	1.42810E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	4.26913E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	4.61747E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+02	6.77932E-09	8.88594E-20	1.06425E-27	1.67079E-47	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	2.60285E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	8.05461E-17	8.05461E-17	8.05460E-17	8.05458E-17	8.05457E-17	8.05455E-17	8.05452E-17	8.05452E-17
MN	25	54	2.61565E+07	1.02621E-07	8.34962E-09	1.56779E-09	2.39518E-11	5.59037E-15	1.30477E-18	3.04531E-22	1.65893E-29
MN	25	56	9.29152E+03	1.49268E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.40789E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.55922E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.26046E-06	5.66369E-07	3.32262E-07	8.75855E-08	6.08603E-09	4.22899E-10	2.93859E-11	1.41888E-13
FE	26	59	3.89409E+06	8.64670E-08	4.15174E-15	5.48458E-20	3.47896E-32	1.39968E-56	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	60	1.65983E+08	1.25896E-07	3.42450E-08	6.47258E-08	3.34897E-08	8.96557E-09	2.40019E-09	6.42557E-10	4.60516E-11
ZR	40	88	7.20602E+06	2.81859E-14	3.12677E-18	7.21894E-21	1.84895E-27	1.21284E-40	7.95583E-54	5.21874E-67	0.00000E+00
ZR	40	89	2.82249E+05	2.81148E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	2.58936E-18	2.58935E-18	2.58934E-18	2.58933E-18	2.58932E-18	2.58931E-18	2.58928E-18	2.58928E-18
ZR	40	95	5.63534E+06	6.37337E-13	5.58620E-18	2.37476E-21	8.84850E-30	1.22845E-46	1.70547E-63	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	8.89187E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	1.15697E-15	1.15354E-15	1.15126E-15	1.14557E-15	1.13429E-15	1.12311E-15	1.11204E-15	1.09023E-15
NB	41	92	8.80746E+05	1.80101E-11	7.89462E-44	2.11468E-65	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	3.42767E-16	3.42727E-16	3.42703E-16	3.42643E-16	3.42525E-16	3.42406E-16	3.42287E-16	3.42049E-16
NB	41	95	3.02684E+06	5.25959E-12	2.02031E-21	1.06756E-27	2.16697E-43	8.92746E-75	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	9.54790E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	9.25600E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	2.54320E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	1.64379E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	2.18672E-12	2.18621E-12	2.18588E-12	2.18504E-12	2.18335E-12	2.18167E-12	2.17999E-12	2.17664E-12
MO	42	99	2.41515E+05	1.16269E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	4.85388E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
			TOTAL (CURIES/CC)	3.30727E-06	6.58966E-07	3.98557E-07	1.21101E-07	1.50538E-08	2.82527E-09	6.74124E-10	4.83717E-11
			TOTAL (CURIES)	3.02317E+01	6.02360E+00	3.64321E+00	1.10699E+00	1.37607E-01	2.58258E-02	6.16216E-03	4.42165E-04

FORM (A) 92 12 3546

COMPONENT : CORE BARREL - TOP R4
VOLUME : 5.50850E+06 CC
: ABOVE VOLUME IS FOR THE TOP 12"CORE BARREL, 2.25" THICK
:
: (INTERVALS 52-54 RCBTOPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
AL	13	28	1.38629E+02	2.95834E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	4.19926E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	8.83031E-10	7.58530E-33	3.18154E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	52	2.02084E+02	8.52220E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	4.56189E-09	5.97947E-21	7.16148E-29	1.12429E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	5.09573E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	8.11211E-17	8.11211E-17	8.11211E-17	8.11210E-17	8.11208E-17	8.11207E-17	8.11205E-17	8.11202E-17
MN	25	54	2.61565E+07	1.03354E-07	8.40922E-09	1.57898E-09	2.41227E-11	5.63028E-15	1.31408E-18	3.06704E-22	1.67077E-29
MN	25	56	9.29152E+03	2.83473E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.41794E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.57036E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.26946E-06	5.70412E-07	3.34634E-07	8.82108E-08	6.12948E-09	4.25918E-10	2.95957E-11	1.42901E-13
FE	26	59	3.89409E+06	8.70840E-08	4.18137E-15	5.52372E-20	3.50379E-32	1.40967E-56	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	60	1.65983E+08	1.24941E-07	8.41404E-08	6.46454E-08	3.54481E-08	8.95444E-09	2.39721E-09	6.41759E-10	4.59944E-11
			TOTAL (CURIES/CC)	4.48041E-06	6.62962E-07	4.00858E-07	1.21683E-07	1.50839E-08	2.82312E-09	6.71354E-10	4.61374E-11
			TOTAL (CURIES)	2.46803E+01	3.65192E+00	2.20813E+00	6.70290E-01	8.30898E-02	1.55512E-02	3.69816E-03	2.54148E-04

COMPONENT : METAL CLAD REFLECTOR - CONTROL ROD ELEMENT R4
VOLUME : 3.56860E+05 CC
: ABOVE VOLUME IS FOR THE TOTAL VOLUME OF METAL FOR ALL
: METAL CLAD CR REFLECTORS. TOTAL OF 37 ELEMENTS @ 9.645E3 CC EA
:
: (INTERVALS 29-39 TOPREFR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
LI	3	8	8.40178E-01	5.22680E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	2.56186E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	4.84211E-13	4.84210E-13	4.84210E-13	4.84209E-13	4.84208E-13	4.84207E-13	4.84205E-13	4.84203E-13
B	5	12	1.99754E-02	1.37545E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	1.87340E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	1.49809E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.80405E-08	1.54978E-31	6.49996E-47	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	3.88765E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	2.98009E-11	2.98617E-12	6.44225E-13	1.39266E-14	6.50818E-18	3.04143E-21	1.42131E-24	3.10398E-31
V	23	52	2.02084E+02	8.27813E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19912E+02	1.34653E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	5.54388E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	7.84694E-02	1.02853E-13	1.23185E-21	1.93391E-41	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	2.11567E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	3.51802E-16	3.51802E-16	3.51802E-16	3.51802E-16	3.51801E-16	3.51801E-16	3.51800E-16	3.51799E-16
MN	25	54	2.61565E+07	1.83596E-06	1.49580E-07	2.80487E-08	4.28513E-10	1.00015E-13	2.33431E-17	5.44825E-21	2.96793E-28
MN	25	56	9.29152E+03	1.39339E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.84078E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	8.07051E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.31528E-01	5.91002E-02	3.46712E-02	9.13948E-03	6.35073E-04	4.41292E-05	3.06640E-06	1.48059E-08
FE	26	59	3.89409E+06	1.36826E-03	6.56975E-11	8.67885E-16	5.50515E-28	2.21487E-52	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	7.01084E-19	7.01069E-19	7.01059E-19	7.01035E-19	7.00987E-19	7.00938E-19	7.00889E-19	7.00792E-19
FE	26	61	3.60001E+02	6.70597E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	2.20819E-09	1.35040E-10	2.09609E-11	1.98969E-13	1.79280E-17	1.61539E-21	1.45556E-25	1.18173E-33
CO	27	58	6.13405E+06	4.55784E-06	1.02959E-10	8.22761E-14	1.48522E-21	4.83957E-37	1.57697E-52	5.13856E-68	0.00000E+00
CO	27	60	1.65983E+08	2.16365E-02	1.45709E-02	1.11949E-02	5.79233E-03	1.55067E-03	4.15133E-04	1.11136E-04	7.96503E-06
CO	27	61	5.94007E+03	2.98764E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	3.05775E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	1.83587E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	7.38266E-06	7.38247E-06	7.38234E-06	7.38202E-06	7.38138E-06	7.38074E-06	7.38010E-06	7.37882E-06
NI	28	63	2.90020E+09	1.05005E-03	1.02656E-03	1.01119E-03	9.73766E-04	9.03023E-04	8.37419E-04	7.76582E-04	6.67046E-04
Y	39	89	1.56998E+01	5.36183E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	3.25008E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	5.68900E-15	5.68899E-15	5.68898E-15	5.68897E-15	5.68894E-15	5.68892E-15	5.68889E-15	5.68884E-15
NB	41	92	8.80746E+05	6.43125E-10	2.81909E-42	7.55055E-64	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	6.25909E-07	6.25844E-07	6.25800E-07	6.25692E-07	6.25474E-07	6.25257E-07	6.25040E-07	6.24607E-07
			TOTAL (CURIES/CC)	3.93420E-01	7.47056E-02	4.68853E-02	1.59136E-02	3.09678E-03	1.30469E-03	8.98789E-04	6.83828E-04
			TOTAL (CURIES)	1.40396E+05	2.66594E+04	1.67315E+04	5.67892E+03	1.10512E+03	4.65591E+02	3.20742E+02	2.44031E+02

FORM (A)292 12-3546

COMPONENT : CORE SUPPORT BLOCKS - R4
VOLUME : 2.73900E+07 CC
: ABOVE VOLUME IS FOR THE TOTAL VOLUME OF THE CORE SUPPORT
: BLOCKS. 37 HEX BLOCKS @ 4.692E5 CC EA AND 24 IRREGULAR
: BLOCKS @ 4.1778E5 CC EA
: (INTERVALS 39-46 TOTGDNR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	SHUTDOWN	3 YEARS	CONCENTRATION (CURIES/CC) AT TIME 5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	5.53029E-06	4.66814E-06	4.16945E-06	3.14352E-06	1.78682E-06	1.01570E-06	5.77354E-07	1.86549E-07
HE	2	6	8.09751E-01	2.53168E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	1.18589E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	3.58392E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	3.25832E-17	3.25832E-17	3.25831E-17	3.25831E-17	3.25830E-17	3.25829E-17	3.25828E-17	3.25827E-17
B	5	12	1.99754E-02	9.10148E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	1.34783E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	4.52110E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	6.78507E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.53131E-09	1.31541E-32	5.51727E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	37	3.02684E+06	2.70510E-10	1.03908E-19	5.49066E-26	1.11451E-41	4.59154E-73	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	1.66074E-15	1.64794E-15	1.63947E-15	1.61847E-15	1.57727E-15	1.53713E-15	1.49800E-15	1.42272E-15
CA	20	41	2.52053E+12	3.24878E-10	3.24869E-10	3.24864E-10	3.24850E-10	3.24822E-10	3.24793E-10	3.24765E-10	3.24709E-10
CA	20	45	1.42623E+07	9.90411E-08	9.94453E-10	4.62839E-11	2.16296E-14	4.72362E-21	1.03158E-27	2.25286E-34	1.07447E-47
CA	20	47	3.91608E+05	5.11444E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	2.17102E-12	2.54675E-16	6.10289E-19	1.71561E-25	1.35569E-38	1.07126E-51	8.46513E-65	0.00000E+00
SC	21	47	2.96217E+05	2.56544E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	5.15209E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	2.59071E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	7.11859E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	6.39632E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	5.23511E-16	5.24578E-17	1.23170E-17	2.44648E-19	1.14329E-22	5.34286E-26	2.49681E-29	5.45274E-36
V	23	52	2.02084E+02	1.64409E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	1.75844E-11	2.30487E-25	2.76049E-31	4.33375E-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10945E+02	1.02022E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	2.71336E-19	2.71336E-19	2.71335E-19	2.71335E-19	2.71335E-19	2.71334E-19	2.71334E-19	2.71333E-19
MN	25	54	2.61565E+07	4.44407E-10	3.61585E-13	6.72[illegible]E-16	1.03724E-13	2.42094E-17	5.65036E-21	1.31879E-24	7.18409E-32
MN	25	56	9.29152E+03	2.09946E-10	2.[illegible]	1.00[illegible]	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	5.53468E-[illegible]	[illegible]	[illegible]	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	5.28257E-[illegible]	[illegible]	[illegible]E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.[illegible]	[illegible]	[illegible]06	9.47699E-07	6.26E-08	4.57588E-09	3.[illegible]E-10	1.[illegible]
FE	26	59	3.89409E+06	[illegible]	15	[illegible]20	5.71723E-32	2.[illegible]0020E-56	0.00000E+00	0.[illegible]	0.00000E+00
			TOTAL (CURIES/CC)		6	[illegible]06	4.09154E-06	1.85304E-06	1.02060E-06	5.77997E-07	1.86875E-07
			TOTAL (CURIES)		95 .2	[illegible]3E+02	1.12067E+02	[illegible].07548E-01	2.79543E+01	1.58313E+01	5.[illegible].52E+00

COMPONENT : CORE SUPPORT FLOOR KAOWOOL AND COVER PLATES - R4
VOLUME : 3.23900E+0[illegible] CC
: ABOVE VOLUME IS FOR THE COMPOSITE MIXTURE OF THE KAOWOOL AND
: COVER PLATE LAYER ON THE CORE SUPPORT FLOOR
:
: (INTERVAL 54 TOTGDNR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	SHUTDOWN	3 YEARS	CONCENTRATION (CURIES/CC) AT TIME 5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
LI	3	8	8.40178E-01	5.04127E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	5.74092E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	8.09151E-18	8.09151E-18	8.09150E-18	8.09149E-18	8.09147E-18	8.09144E-18	8.09142E-18	8.09138E-18
B	5	12	1.99754E-02	2.28853E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	4.37437E-12	4.37278E-12	4.37173E-12	4.36908E-12	4.36381E-12	4.35854E-12	4.35327E-12	4.34276E-12
F	9	20	1.10023E+01	5.09630E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	8.24589E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	8.58652E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	2.37030E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	5.12100E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	6.95119E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.59035E-11	1.36612E-34	5.72999E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	37	3.02684E+06	1.46673E-12	5.63397E-22	2.97708E-28	6.04297E-44	2.48957E-75	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	9.50898E-18	9.43571E-18	9.38718E-18	9.26695E-18	9.03108E-18	8.80121E-18	8.57719E-18	8.14612E-18
CA	20	41	2.52053E+12	2.55685E-12	2.55679E-12	2.55674E-12	2.55663E-12	2.55641E-12	2.55619E-12	2.55596E-12	2.55552E-12
CA	20	45	1.42623E+07	7.78243E-10	7.81418E-12	3.63688E-13	1.69960E-16	3.71171E-23	8.10595E-30	1.77025E-36	8.44293E-50
CA	20	47	3.91608E+05	4.02543E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	1.08555E-12	1.27342E-16	3.05154E-19	8.57832E-26	6.77864E-39	5.35644E-52	4.23270E-65	0.00000E+00
SC	21	47	2.96217E+05	1.22417E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	2.63220E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	1.27687E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	4.04708E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	4.65786E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	6.57860E-16	6.59201E-17	1.42213E-17	3.07432E-19	1.43669E-22	6.71400E-26	3.13756E-29	6.85208E-36
V	23	52	2.02084E+02	5.81179E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	1.16616E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	1.20268E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	2.98670E-07	3.91480E-19	4.68867E-27	7.36083E-47	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10945E+02	3.16968E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	1.06169E-18	1.06168E-18	1.06168E-18	1.06168E-18	1.06168E-18	1.06168E-18	1.06168E-18	1.06167E-18
MN	25	54	2.61565E+07	1.49352E-09	1.21518E-10	2.28171E-11	3.48587E-13	3.13606E-17	1.88982E-20	4.45205E-24	2.41436E-31
MN	25	56	9.29152E+03	1.25395E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.96349E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	2.06706E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	6.84866E-05	3.07[illegible]	[illegible]	[illegible]5893[illegible]06	3.30683E-07	2.29781E-08	1.59667E-09	7.70943E-12
FE	26	59	3.89409E+06	7.11433E-07	3.4[illegible]	[illegible]	[illegible]742E-31	1.15163E-55	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	1.16583E-22	1.3[illegible]	[illegible]	[illegible]74E-22	1.16566E-22	1.16558E-22	1.16550E-22	1.16534E-22
FE	26	61	3.60001E+02	1.14392E-16	0.0[illegible]	[illegible]	[illegible]00E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	3.72[illegible]	2.[illegible]	[illegible]	[illegible]703E-17	3.02033E-21	2.72194E-25	2.45217E-29	1.99085E-37
CO	27	58	6.13405E+06	2.00[illegible]	4.[illegible]	[illegible]	2762E-26	2.12702E-41	6.93090E-57	2.25843E-72	0.00000E+00
CO	27	60	1.65983E+08	1.22[illegible]06	8.[illegible]	[illegible]	.29130E-07	8.81118E-08	2.35885E-08	6.31491E-09	4.52586E-10
CO	27	61	5.94007E+0[illegible]	1.62072E-13	0.[illegible]	[illegible]	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	4.10950E-14	0.0[illegible]E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	3.13024E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	2.17743E-10	2.17637E-10	2.17633E-10	2.17624E-10	2.17605E-10	2.17586E-10	2.17567E-10	2.17529E-10
NI	28	63	2.90020E+09	3.6[illegible]54E-08	3.02726E-08	2.98194E-08	2.87158E-08	2.66296E-08	2.46950E-08	2.29009E-08	1.96944E-08
NI	28	65	9.21738E+03	4.59565E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	3.55592E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
			TOTAL (CURIES/CC)	8.88467E-05	3.16320E-05	1.87195E-05	5.11699E-06	4.45648E-07	7.14861E-08	3.10370E-08	2.03791E-08

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TOTAL (CURIES)	2.87774E+02	1.02456E+02	6.06323E+01	1.65739E+01	1.44345E+00	2.31543E-01	1.00529E-01	6.60079E-02

COMPONENT : CORE SUPPORT FLOOR LINER - R4
VOLUME : 1.39000E+06 CC
: ABOVE VOLUME IS FOR THE CSF LINER ON THE TOP OF THE CSF
:
: (INTERVAL 55 TOTGDNR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
AL	13	28	1.38629E+02	3.59792E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	4.55703E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	9.49486E-11	8.15616E-34	3.42098E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	6.75146E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	6.95904E-15	6.97323E-16	1.50438E-16	3.25212E-18	1.51978E-21	7.10228E-25	3.31901E-28	7.24834E-35
V	23	52	2.02234E+02	6.55324E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	1.21515E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	1.27209E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	1.58068E-06	2.07187E-18	2.48143E-26	3.89565E-46	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	6.69876E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	7.97345E-18	7.97344E-18	7.97344E-18	7.97343E-18	7.97342E-18	7.97340E-18	7.97339E-18	7.97336E-18
MN	25	54	2.61565E+07	1.09015E-08	8.86983E-10	1.66546E-10	2.54440E-12	5.93867E-16	1.38606E-19	3.23504E-23	1.76229E-30
MN	25	56	9.29152E+03	1.39772E-04	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.44647E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.55059E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	2.56177E-04	1.15109E-04	6.75292E-05	1.78016E-05	1.23693E-06	8.59504E-08	5.97242E-09	2.88374E-11
FE	26	59	3.89409E+06	2.66748E-06	1.8080E-13	1.69198E-18	1.07325E-30	4.31799E-55	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	2.55765E-22	2.55760E-22	2.55757E-22	2.55748E-22	2.55730E-22	2.55712E-22	2.55694E-22	2.55659E-22
FE	26	61	3.60001E+02	2.51002E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	8.16213E-13	4.99146E-14	7.74777E-15	7.35449E-17	6.62673E-21	5.97096E-25	5.38016E-29	4.36802E-37
CO	27	58	6.13405E+06	4.28332E-10	9.67581E-15	7.73208E-18	1.39576E-25	4.54809E-41	1.48199E-56	4.82907E-72	0.00000E+00
CO	27	60	1.65983E+08	2.89833E-06	1.95166E-06	1.49962E-06	7.75918E-07	2.07722E-07	5.56895E-08	1.48873E-08	1.06696E-09
CO	27	61	5.94007E+03	3.47273E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	2.37383E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	6.86840E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	2.38116E-10	2.38110E-10	2.38106E-10	2.38096E-10	2.38075E-10	2.38054E-10	2.38034E-10	2.37993E-10
NI	28	63	2.90020E+09	3.38562E-08	3.30988E-08	3.26032E-08	3.13966E-08	2.91157E-08	2.70005E-08	2.50389E-08	2.15330E-08
NI	28	65	9.21738E+03	1.98727E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	7.85973E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	4.78486E-16	5.21929E-20	1.20500E-22	3.08631E-29	2.92451E-42	1.32801E-55	8.71145E-69	0.00000E+00
ZR	40	89	2.82249E+05	4.63522E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	4.27701E-20	4.27700E-20	4.27700E-20	4.27699E-20	4.27697E-20	4.27695E-20	4.27693E-20	4.27689E-20
ZR	40	95	5.63534E+06	1.04888E-14	9.19737E-20	3.90821E-23	1.45622E-31	2.02169E-48	2.8.675E-65	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	1.45971E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	1.87373E-17	1.86817E-17	1.86448E-17	1.85527E-17	1.83699E-17	1.81888E-17	1.80096E-17	1.76564E-17
NB	41	92	8.80746E+05	3.00687E-13	1.31804E-45	3.53020E-67	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	5.66056E-18	5.65997E-18	5.65958E-18	5.65860E-18	5.65663E-18	5.65467E-18	5.65271E-18	5.64879E-18
NB	41	95	3.02684E+06	3.73617E-14	3.35573E-23	1.77321E-29	3.59954E-45	1.68285E-76	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	1.57008E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	1.52972E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	99	1.50225E+03	1.14278E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	1.09994E+00	2.64793E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	2.47632E-14	2.47575E-14	2.47537E-14	2.47441E-14	2.47251E-14	2.47061E-14	2.46870E-14	2.46491E-14
MO	42	99	2.41515E+05	1.47704E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	8.20789E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)				4.11023E-04	1.17095E-04	6.90618E-05	1.86085E-05	1.47401E-06	1.68798E-07	4.61367E-08	2.28668E-08
TOTAL (CURIES)				5.71322E+02	1.62763E+02	9.59958E+01	2.58658E+01	2.04887E+00	2.34630E-01	6.41300E-02	3.17849E-02

FORM (PA)292-12-3546

COMPONENT : LARGE PERMANENT REFLECTORS - R4
VOLUME : 4.72880E+08 CC
: ABOVE VOLUME IS THE TOTAL VOLUME OF ALL PERMANENT AND IRREGULAR
: BLOCKS. 54 HEX BLKS @ 8.85E4 CC EA. 288 PERM BLKS @
: 1.6254E6 CC EA.
: (INTERVALS 35-45 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	8.25235E-03	6.96594E-03	6.22178E-03	4.69086E-03	2.66642E-03	1.51567E-03	8.61547E-04	2.78374E-04
HE	2	6	8.09751E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	6.31336E-14	6.31335E-14	6.31335E-14	6.31334E-14	6.31333E-14	6.31331E-14	6.31329E-14	6.31326E-14
B	5	12	1.99754E-02	1.81523E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MA	11	24	5.41621E+04	8.39590E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	3.75524E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	6.48412E-04	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	2.93271E-08	2.51922E-31	1.05665E-46	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	37	3.02684E+06	3.66785E-08	1.40889E-17	7.44478E-24	1.51117E-39	6.22568E-71	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	1.81010E-13	1.79615E-13	1.78691E-13	1.76402E-13	1.71812E-13	1.67537E-13	1.63272E-13	1.55067E-13
CA	20	41	2.52053E+12	4.67272E-07	4.67260E-07	4.67252E-07	4.67231E-07	4.67191E-07	4.67150E-07	4.67110E-07	4.67029E-07
CA	20	45	1.42623E+07	1.42103E-04	1.42683E-06	6.64077E-08	3.10339E-11	6.77741E-18	1.48011E-24	3.23239E-31	1.54164E-44
CA	20	47	3.91608E+05	7.35607E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	3.72617E-10	4.37105E-14	3.04745E-16	2.94453E-23	2.32679E-36	1.83862E-49	1.45289E-62	0.00000E+00
SC	21	47	2.96217E+05	6.15930E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	7.45494E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	4.58398E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	8.55276E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.25609E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.34487E-13	1.34762E-14	2.90729E-15	6.28490E-17	2.93705E-20	1.37255E-23	6.41418E-27	1.40078E-33
V	23	52	2.02084E+02	6.90476E-03	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	2.84081E-09	3.72357E-21	4.45964E-29	7.00127E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	9.28266E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	2.43882E-17	2.43882E-17	2.43881E-17	2.43881E-17	2.43881E-17	2.43880E-17	2.43880E-17	2.43879E-17
MN	25	54	2.61565E+07	6.83389E-08	5.56028E-09	1.04404E-09	1.59503E-11	3.72281E-15	8.68886E-19	2.02797E-22	1.10474E-29
MN	25	56	9.29152E+03	2.28655E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	6.62923E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	4.78077E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	2.00802E-02	9.02273E-03	5.29321E-03	1.39531E-03	9.69557E-05	6.73714E-06	4.68142E-07	2.36039E-09
FE	26	59	3.89409E+06	2.08285E-04	1.00009E-11	1.32115E-16	8.38026E-29	3.37161E-53	0.00000E+00	0.00000E+00	0.00000E+00
	TOTAL (CURIES/CC)			3.62694E-02	1.59906E-02	1.15155E-02	6.08664E-03	2.76384E-03	1.52287E-03	8.62482E 04	2.78843E-04
	TOTAL (CURIES)			1.71511E+07	7.56162E+06	5.44546E+06	2.87825E+06	1.30696E+06	7.20136E+05	4.07850E+05	1.31859E+05

COMPONENT : METAL SHELL FOR LARGE SIDE REFLECTOR - SEE ** BELOW
VOLUME : 3.88272E+05 CC
: ABOVE VOLUME IS FOR TOTAL NUMBER OF SHELLS IN PCRV
: ONE SHELL: 1.6178E3 - 24 SHELLS PCRV TOTAL
: ** THIS COMPONENT IS THE SAME AS THE ORIGINAL CALC **
: (INTERVAL 2 - LARGEREF)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	50 YEARS	60 YEARS
AL	13	28	1.38629E+02	3.78514E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	4.99108E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.00773E-13	3.63084E-52	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.23672E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.26665E-17	2.73820E-19	5.91936E-21	2.76625E-24	1.29274E-27	6.04122E-31	2.82320E-34	1.31935E-37
V	23	52	2.02084E+02	2.03040E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	3.14565E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	2.29544E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	2.76937E-08	4.34749E-28	6.82521E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	1.85905E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	3.38065E-21	3.38065E-21	3.38064E-21	3.38063E-21	3.38063E-21	3.38062E-21	3.38062E-21	3.38061E-21
MN	25	54	2.61565E+07	1.05218E-11	1.60746E-13	2.45579E-15	5.73184E-19	1.33780E-22	3.12242E-26	7.28779E-30	1.70096E-33
MN	25	56	9.29152E+03	7.73625E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	9.13389E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	6.06876E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	7.21408E-08	1.90166E-08	5.01285E-09	3.48328E-10	2.42042E-11	1.68188E-12	1.16869E-13	8.12085E-15
FE	26	59	3.89409E+06	3.72281E-09	2.36137E-21	1.49786E-33	6.02657E-58	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	60	1.65983E+08	5.34840E-09	2.76731E-09	1.43183E-09	3.83317E-10	1.02618E-10	2.74721E-11	7.35462E-12	1.96892E-12
	TOTAL (CURIES/CC)			1.86280E-07	2.17841E-08	6.44468E-09	7.31645E-10	1.26823E-10	2.91540E-11	7.47148E-12	1.97704E-12
	TOTAL (CURIES)			7.23271E-02	8.45814E-03	2.50229E-03	2.84077E-04	4.92417E-05	1.13197E-05	2.90097E-06	7.67628E-07

FORM (A)292.12.3546

COMPONENT : METAL CLAD BLOCK - NON CONTROL ROD WITH COOLANT HOLES R4
VOLUME : 1.81692E+06 CC
: ABOVE VOLUME IS THE TOTAL METAL VOLUME FOR NCR ELEMENTS W/ COOL-
: ANT HOLES: 210 ELEMENTS @ 8.652E3 CC EA, VOL OF BORON GRANULES-
: 5.51E3 CC
: (INTERVALS 29-39 TOTGUPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
LI	3	8	8.40178E-01	5.22600E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	2.56186E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	4.84211E-13	4.84210E-13	4.84210E-13	4.84209E-13	4.84208E-13	4.84207E-13	4.84205E-13	4.84203E-13
B	5	12	1.99754E-02	1.37545E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	9.43757E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	1.17411E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	2.12087E-08	1.82185E-31	7.64146E-47	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	4.89900E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	3.75535E-12	3.76301E-13	8.11816E-14	1.75496E-15	8.20125E-19	3.83264E-22	1.79106E-25	3.91147E-32
V	23	52	2.02084E+02	1.04518E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	1.69683E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	6.98610E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	9.88841E-03	1.29612E-14	1.55233E-22	2.43703E-42	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	4.81928E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	5.08313E-16	5.08313E-16	5.08313E-16	5.08312E-16	5.08311E-16	5.08310E-16	5.08309E-16	5.08307E-16
MN	25	54	2.61565E+07	2.65275E-06	2.15837E-07	4.05270E-08	6.19150E-10	1.44510E-13	3.37280E-17	7.87208E-21	4.28831E-28
MN	25	56	9.29152E+03	3.61363E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	2.65972E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.16609E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.90942E-01	8.53926E-02	5.00958E-02	1.32055E-02	9.17604E-04	6.37614E-05	4.43058E-06	2.13927E-08
FE	26	59	3.89409E+06	1.97697E-03	9.49250E-11	1.25399E-15	7.95427E-28	3.20022E-52	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	60	1.65983E+08	2.18129E-03	1.46897E-03	1.12862E-03	5.83956E-04	1.56332E-04	4.18517E-05	1.12042E-05	8.02997E-07
ZR	40	88	7.20602E+06	9.81956E-13	1.08932E-16	2.51498E-19	6.44148E-26	4.22538E-39	2.77170E-52	1.81813E-65	0.00000E+00
ZR	40	89	2.82249E+05	7.52170E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	7.32169E-17	7.32168E-17	7.32167E-17	7.32165E-17	7.32162E-17	7.32159E-17	7.32155E-17	7.32149E-17
ZR	40	95	5.63534E+06	1.60863E-11	1.40995E-16	5.99387E-20	2.23335E-28	3.10060E-45	4.30460E-62	5.97613E-79	0.00000E+00
ZR	40	97	6.04840E+04	2.05937E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	1.76398E-14	1.75875E-14	1.75527E-14	1.74660E-14	1.72939E-14	1.71235E-14	1.69548E-14	1.66223E-14
NB	41	92	8.80746E+05	6.03715E-10	2.64634E-42	7.08790E-64	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	9.68697E-15	9.68596E-15	9.68529E-15	9.68361E-15	9.68025E-15	9.67689E-15	9.67353E-15	9.66682E-15
NB	41	95	3.02684E+06	1.67623E-10	6.43873E-20	3.40232E-26	6.90614E-42	2.84518E-73	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	2.34686E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	2.65697E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	4.63252E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	2.07066E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	1.97595E-10	1.97550E-10	1.97519E-10	1.97443E-10	1.97291E-10	1.97139E-10	1.96987E-10	1.96684E-10
MO	42	99	2.41515E+05	1.29579E-04	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	7.21358E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)				2.40443E-01	8.68617E-02	5.12244E-02	1.37894E-02	1.07394E-03	1.05613E-04	1.56349E-05	8.24586E-07
TOTAL (CURIES)				4.36866E+05	1.57821E+05	9.30707E+04	2.50542E+04	1.95126E+03	1.91891E+02	2.84074E+01	1.49821E+00

COMPONENT : METAL CLAD BLOCK - NON CONTROL ROD COLUMN WITHOUT COOLANT HOLES
VOLUME : 4.54140E+05 CC
: ABOVE VOLUME IS FOR THE TOTAL METAL VOLUME FOR NCR ELEMENTS
: W/O COOLANT HOLES: 60 ELEMENTS @ 7.569E3 CC EACH
:
: (INTERVALS 29-39 TOTGUPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
LI	3	8	8.40178E-01	5.22600E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	2.56186E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	4.84211E-13	4.84210E-13	4.84210E-13	4.84209E-13	4.84208E-13	4.84207E-13	4.84205E-13	4.84203E-13
B	5	12	1.99754E-02	1.37545E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	9.43757E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	1.17411E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	2.12087E-08	1.82185E-31	7.64146E-47	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	4.89900E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	3.75535E-12	3.76301E-13	8.11816E-14	1.75496E-15	8.20125E-19	3.83264E-22	1.79106E-25	3.91147E-32
V	23	52	2.02084E+02	1.04518E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	1.69683E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	6.98610E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	9.88841E-03	1.29612E-14	1.55233E-22	2.43703E-42	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	4.81928E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	5.08313E-16	5.08313E-16	5.08313E-16	5.08312E-16	5.08311E-16	5.08310E-16	5.08309E-16	5.08307E-16
MN	25	54	2.61565E+07	2.65275E-06	2.15837E-07	4.05270E-08	6.19150E-10	1.44510E-13	3.37280E-17	7.87208E-21	4.28831E-28
MN	25	56	9.29152E+03	3.61363E-02	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	2.65972E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.16609E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.90942E-01	8.53926E-02	5.00958E-02	1.32055E-02	9.17604E-04	6.37614E-05	4.43058E-06	2.13927E-08
FE	26	59	3.89409E+06	1.97697E-03	9.49250E-11	1.25399E-15	7.95427E-28	3.20022E-52	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	60	1.65983E+08	2.18129E-03	1.46897E-03	1.12862E-03	5.83956E-04	1.56332E-04	4.18517E-05	1.12042E-05	8.02997E-07
ZR	40	88	7.20602E+06	9.81956E-13	1.08932E-16	2.51498E-19	6.44148E-26	4.22538E-39	2.77170E-52	1.81813E-65	0.00000E+00
ZR	40	89	2.82249E+05	7.52170E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	7.32169E-17	7.32168E-17	7.32167E-17	7.32165E-17	7.32162E-17	7.32159E-17	7.32155E-17	7.32149E-17
ZR	40	95	5.63534E+06	1.60863E-11	1.40995E-16	5.99387E-20	2.23335E-28	3.10060E-45	4.30460E-62	5.97613E-79	0.00000E+00
ZR	40	97	6.04840E+04	2.05937E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	1.76398E-14	1.75875E-14	1.75527E-14	1.74660E-14	1.72939E-14	1.71235E-14	1.69548E-14	1.66223E-14
NB	41	92	8.80746E+05	6.03715E-10	2.64634E-42	7.08790E-64	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	9.68697E-15	9.68596E-15	9.68529E-15	9.68361E-15	9.68025E-15	9.67689E-15	9.67353E-15	9.66682E-15
NB	41	95	3.02684E+06	1.67623E-10	6.43873E-20	3.40232E-26	6.90614E-42	2.84518E-73	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	2.34686E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	2.65697E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	4.63252E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	2.07066E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	1.97595E-10	1.97550E-10	1.97519E-10	1.97443E-10	1.97291E-10	1.97139E-10	1.96987E-10	1.96684E-10
MO	42	99	2.41515E+05	1.29579E-04	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	7.21358E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)				2.40443E-01	8.68617E-02	5.12244E-02	1.37894E-02	1.07394E-03	1.05613E-04	1.56349E-05	8.24586E-07
TOTAL (CURIES)				1.09195E+05	3.94474E+04	2.32631E+04	6.26232E+03	4.87717E+02	4.79632E+01	7.10045E+00	3.74478E-01

FORM (A)252-12-3546

COMPONENT : ORIFICE VALVE - R4
VOLUME : 1.59200E+06 CC
: ABOVE VOLUME IS THE TOTAL VOLUME OF ALL ORIFICE VALVES AND
: LOWER GUIDE TUBES. 37 TOTAL DEVICES @ 4.302E4 CC EACH.
:
: (INTERVALS 36-39 UPDVR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
SI	14	31	9.43067E+03	7.71256E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.66952E-08	1.43413E-31	6.01523E-47	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	52	2.02084E+02	6.66190E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	5.61142E-08	6.56868E-20	7.86717E-28	1.23508E-47	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	6.86276E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	3.62186E-16	3.62186E-16	3.62186E-16	3.62185E-16	3.62185E-16	3.62184E-16	3.62183E-16	3.62182E-16
MN	25	54	2.61565E+07	1.25514E-06	1.02123E-07	1.91753E-08	2.92949E-10	6.83748E-14	1.59584E-17	3.72466E-21	2.02901E-28
MN	25	56	9.29152E+03	4.22855E-04	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.32886E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	7.76124E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	4.78144E-04	2.14847E-04	1.26041E-04	3.32248E-05	2.30869E-06	1.60423E-07	1.11473E-08	5.38240E-11
FE	26	59	3.89409E+06	9.25564E-06	4.44413E-13	5.87083E-18	3.72397E-30	1.49826E-54	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	60	1.65963E+08	1.29057E-04	8.69123E-05	6.67751E-05	3.45500E-05	9.24944E-06	2.47618E-06	6.62901E-07	4.75097E-08
TOTAL (CURIES/CC)				1.04066E-03	3.01861E-04	1.92835E-04	6.77752E-05	1.15581E-05	2.63660E-06	6.74048E-07	4.75635E-08
TOTAL (CURIES)				1.65673E+03	4.80563E+02	3.06993E+02	1.07898E+02	1.84005E+01	4.19747E+00	1.07308E+00	7.57211E-02

COMPONENT : RADIAL COVER PLATE - R4
VOLUME : 4.45840E+06 CC
: ABOVE VOLUME IS FOR BOTH LAYERS OF THE COVER PLATES ON THE SIDES
: OF THE PCRV ABOVE THE CSF
:
: (INTERVAL 58 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
AL	13	28	1.38629E+02	1.83549E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	2.47918E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	5.66557E-11	4.86676E-34	2.04129E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	52	2.02084E+02	1.99352E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	2.46020E-10	3.72468E-22	3.86213E-30	6.06324E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	1.27973E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	4.61073E-18	4.61073E-18	4.61073E-18	4.61072E-18	4.61072E-18	4.61071E-18	4.61070E-18	4.61068E-18
MN	25	54	2.61565E+07	5.29913E-09	4.31155E-10	8.09569E-11	1.23681E-12	2.88674E-16	6.73752E-20	1.57253E-23	8.56633E-31
MN	25	56	9.29152E+03	1.28156E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	7.35622E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	8.84024E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.49043E-07	6.69703E-08	3.92883E-08	1.03566E-08	7.19644E-10	5.00057E-11	3.47474E-12	1.67775E-14
FE	26	59	3.89409E+06	6.76759E-09	3.24948E-16	4.29267E-21	2.72291E-33	1.09550E-57	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	60	1.65983E+08	9.45155E-09	6.36507E-09	4.89031E-09	2.53029E-09	6.77387E-10	1.81344E-10	4.85479E-11	3.47940E-12
TOTAL (CURIES/CC)				1.85616E-07	7.37664E-08	4.42596E-08	1.28681E-08	1.39703E-09	2.31350E-10	5.20226 -11	3.49618E-12
TOTAL (CURIES)				8.27549E-01	3.28880E-01	1.97327E-01	5.74602E-02	6.22852E-03	1.03145E-03	2.31938E-04	1.55874E-05

FORM (A)292-12 3546

COMPONENT : RADIAL KAOWOOL - R4
VOLUME : 2.55900E+07 CC
: ABOVE VOLUME IS FOR BOTH LAYERS OF KAOWOOL ON THE SIDES OF THE
: PCRV ABOVE THE CSF
:
: (INTERVAL 59 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
LI	3	8	8.40178E-01	1.21694E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	1.22448E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	4.77318E-19	4.77317E-19	4.77317E-19	4.77316E-19	4.77315E-19	4.77314E-19	4.77313E-19	4.77310E-19
B	5	12	1.97754E-02	5.18622E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	8.69901E-15	8.69585E-15	8.69375E-15	8.68850E-15	8.67801E-15	8.66752E-15	8.65705E-15	8.63615E-15
F	9	20	1.10023E+01	1.16372E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	1.70778E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	4.13295E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	4.80478E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	1.35578E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	37	3.02684E+06	2.98038E-12	1.14482E-21	6.04940E-28	1.22793E-43	5.05879E-75	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	2.03943E-17	2.02371E-17	2.01330E-17	1.98752E-17	1.93693E-17	1.88763E-17	1.83958E-17	1.74713E-17
CA	20	41	2.52053E+12	3.78001E-15	3.77994E-15	3.77984E-15	3.77968E-15	3.77935E-15	3.77902E-15	3.77870E-15	3.77804E-15
CA	20	45	1.42623E+07	3.37403E-12	3.38781E-14	1.57676E-15	7.36856E-19	1.60920E-25	3.51430E-32	7.67483E-39	3.66040E-52
CA	20	47	3.91608E+05	6.67489E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	2.29526E-12	2.69250E-16	6.45213E-19	1.81379E-25	1.43327E-38	1.13256E-51	8.94955E-65	0.00000E+00
SC	21	47	2.96217E+05	2.83965E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	6.11297E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	2.66957E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	1.02062E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.19849E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
			TOTAL (CURIES/CC)	1.44805E-08	4.66438E-14	1.40716E-14	1.24893E-14	1.24772E-14	1.24659E-14	1.24546E-14	1.24321E-14
			TOTAL (CURIES)	3.70556E-01	1.19361E-06	3.60092E-07	3.19600E-07	3.19291E-07	3.19002E-07	3.18714E-07	3.18138E-07

COMPONENT : RADIAL PCRV LINER - R4
VOLUME : 7.00000E+06 CC
: ABOVE VOLUME IS FOR THE PCRV LINER AND COOLING TUBES ON THE SIDES
: OF THE PCRV ABOVE THE CSF
:
: (INTERVAL 60 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
AL	13	28	1.38629E+02	8.62084E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	1.05390E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	2.19739E-10	1.88758E-33	7.91714E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.80647E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.92073E-14	1.92485E-15	4.15260E-16	8.97[illegible]E-18	4.19509E-21	1.96047E-24	[illegible]	2.00079E-34
V	23	52	2.02084E+02	1.53388E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	[illegible]	0.00000E+00
V	23	53	1.19922E+02	2.95678E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	[illegible]	0.00000E+00
V	23	54	5.50117E+01	3.50586E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	[illegible]	0.00000E+00
CR	24	51	2.39843E+06	3.30094E-08	4.43154E-20	5.53756E-28	8.33245E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	1.56079E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	2.20093E-17	2.20093E-17	2.20093E-17	2.20092E-17	2.20092E-17	2.20092E-17	2.20091E-17	2.20090E-17
MN	25	54	2.61565E+07	2.49974E-08	2.03387E-09	3.81895E-10	5.83438E-12	1.36175E-15	3.17826E-19	7.41802E-23	4.04096E-30
MN	25	56	9.29152E+03	3.08770E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	3.45830E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	4.21157E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	3.48901E-06	1.56773E-06	9.19715E-07	2.42441E-07	1.68464E-08	1.17060E-09	8.13416E-11	3.92752E-13
FE	26	59	3.69409E+06	6.41219E-08	3.07883E-15	4.06724E-20	2.57992E-32	1.03797E-56	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	7.04252E-22	7.04217E-22	7.04207E-22	7.04183E-22	7.04134E-22	7.04085E-22	7.04037E-22	7.03939E-22
FE	26	61	3.60001E+02	6.92727E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	2.25008E-12	1.37601E-13	1.13586E-14	2.02744E-16	1.82681E-20	1.64603E-24	1.48317E-28	1.20415E-36
CO	27	58	6.13405E+06	1.02789E-09	2.32195E-14	1.85550E-17	3.34948E-25	1.09143E-40	3.55641E-56	1.15885E-71	0.00000E+00
CO	27	60	1.65983E+08	8.26823E-08	5.56817E-08	4.27805E-08	2.21350E-08	5.92579E-09	1.58640E-09	4.24698E-10	3.04378E-11
CO	27	61	5.94007E+03	8.13657E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	6.03679E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	1.89550E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	3.59137E-12	3.59127E-12	3.59121E-12	3.59105E-12	3.59074E-12	3.59043E-12	3.59012E-12	3.58950E-12
NI	28	63	2.90020E+09	4.45501E-10	4.35534E-10	4.29013E-10	4.15136E-10	3.85122E-10	3.55289E-10	3.29478E-10	2.83345E-10
NI	28	65	9.21738E+03	4.65777E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	1.58714E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	1.13021E-15	1.25378E-19	2.89467E-22	7.41397E-29	4.86330E-42	3.19015E-55	2.09263E-68	0.00000E+00
ZR	40	89	2.82249E+05	1.16989E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	1.07177E-19	1.07176E-19	1.07176E-19	1.07176E-19	1.07176E-19	1.07175E-19	1.07175E-19	1.07174E-19
ZR	40	95	5.63534E+06	2.66702E-14	2.33762E-19	9.93749E-23	3.70277E-31	5.14061E-48	7.13678E-65	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	3.74989E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	5.06299E-17	5.04797E-17	5.03799E-17	5.01319E-17	4.96370E-17	4.91479E-17	4.86636E-17	4.77093E-17
NB	41	92	8.80746E+05	7.34754E-13	3.22079E-45	8.62635E-67	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	1.41871E-17	1.41856E-17	1.41846E-17	1.41822E-17	1.41772E-17	1.41723E-17	1.41674E-17	1.41576E-17
NB	41	95	3.02684E+06	2.15040E-13	8.26670E-23	4.36476E-29	8.35973E-45	3.65802E-76	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	4.00410E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	3.82321E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+02	1.09619E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	7.29168E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	1.28340E-13	1.23317E-13	1.23293E-13	1.23245E-13	1.23150E-13	1.23056E-13	1.22961E-13	1.22772E-13
MO	42	99	2.11515E+05	6.46888E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	2.71454E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
			TOTAL (CURIES/CC)	6.95354E-06	1.62589E-06	9.63809E-07	2.64998E-07	2.31590E-08	3.11601E-09	8.39230E-10	3.17887E-10
			TOTAL (CURIES)	4.86748E+01	1.13812E+01	6.74316E+00	1.85499E+00	1.62113E-01	2.18121E-02	5.87461E-03	2.22521E-03

COMPONENT : REFLECTOR KEYS - KEYS THE CORE BARREL AND THE LRG SIDE REF
VOLUME : 3.81820E+05 CC
: ABOVE VOLUME IS FOR THE TOTAL NUMBER OF KEYS IN THE CORE
: ONE KEY: 1.5909E4 CC - 24 KEYS TOTAL
: THIS CALC SAME AS R1 - FILE T8284.REBATE.L133(REFLKEY)
: (INTERVALS 2 REFLKEY)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
AL	13	28	1.38629E+02	1.64529E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	4.98549E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.08545E-13	8.64551E-37	3.02623E-52	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	52	2.02084E+02	3.63216E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	6.75446E-13	6.23187E-25	7.46377E-33	1.17175E-52	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	3.64893E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	3.43052E-21	3.43052E-21	3.43052E-21	3.43051E-21	3.43051E-21	3.43050E-21	3.43049E-21	3.43048E-21
MN	25	54	2.61565E+07	1.06770E-11	8.68720E-13	1.63117E-13	2.49201E-15	5.81639E-19	1.35752E-22	3.16843E-26	1.72600E-33
MN	25	56	9.29152E+03	1.52511E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	9.26864E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	6.15830E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	7.32050E-08	3.28936E-08	1.92971E-08	5.08680E-09	3.53465E-10	2.45612E-11	1.70468E-12	8.24038E-15
FE	26	59	3.89409E+06	3.77773E-09	1.81389E-16	2.39621E-21	1.51995E-33	6.11519E-58	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	60	1.65983E+08	5.34175E-09	3.59736E-09	2.76387E-09	1.43005E-09	3.82840E-10	1.02491E-10	2.74379E-11	1.96646E-12
			TOTAL (CURIES/CC)	2.34647E-07	3.64919E-08	2.20612E-08	6.51685E-09	7.36306E-10	1.27052E-10	2.91446E-11	1.97470E-12
			TOTAL (CURIES)	8.95929E-02	1.39333E-02	8.42341E-03	2.48826E-03	2.81136E-04	4.85110E-05	1.11280E-05	7.53980E-07

COMPONENT : SILICA INSULATION BLOCKS - R4
VOLUME : 9.51705E+06 CC
: ABOVE VOLUME IS THE TOTAL VOLUME OF ALL THREE LAYERS OF SILICA
: INSULATION: 2 LAYERS OF GLASSROCK AND 1 LAYER OF MASSROCK
:
: (INTERVAL 54 TOTGDNR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
LI	3	8	8.40178E-01	5.04127E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	5.74092E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	8.09151E-18	8.09151E-18	8.09150E-18	8.09149E-18	8.09147E-18	8.09144E-18	8.09142E-18	8.09138E-18
B	5	12	1.99754E-02	2.28853E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	4.37437E-12	4.37278E-12	4.37173E-12	4.36988E-12	4.36381E-12	4.35854E-12	4.35327E-12	4.34276E-12
F	9	20	1.10023E+01	5.09630E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	8.26589E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	8.58652E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	2.37030E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	5.12100E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	6.95119E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.59035E-11	1.36612E-34	5.72999E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	37	3.02684E+06	1.46673E-12	5.63397E-22	2.97708E-28	6.04297E-44	2.48957E-75	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	9.50898E-18	9.43571E-18	9.38718E-18	9.26695E-18	9.03108E-18	8.80121E-18	8.57719E-18	8.14612E-18
CA	20	41	3.52053E+12	2.55685E-12	2.55679E-12	2.55674E-12	2.55663E-12	2.55641E-12	2.55619E-12	2.55598E-12	2.55552E-12
CA	20	45	1.42623E+07	7.78243E-10	7.81418E-12	3.63688E-13	1.69960E-16	3.71171E-23	8.10595E-30	1.77025E-36	8.44293E-50
CA	20	47	3.91608E+05	4.02543E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	1.08555E-12	1.27342E-16	3.05154E-19	8.57832E-26	6.77864E-39	5.35644E-52	4.23270E-65	0.00000E+00
SC	21	47	2.96217E+05	3.22417E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	2.63220E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	1.27687E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	4.04708E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	4.65786E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	6.57860E-16	6.59201E-17	1.42213E-17	3.07432E-19	1.43669E-22	6.71400E-26	3.13786E-29	6.85708E-36
V	23	52	2.02084E+02	5.81179E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	1.16616E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	1.20268E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	2.98670E-07	3.91480E-19	4.68867E-27	7.36983E-47	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	3.16968E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	1.06169E-18	1.06168E-18	1.06168E-18	1.06168E-18	1.06168E-18	1.06168E-18	1.06168E-18	1.06167E-18
MN	25	54	2.61565E+07	1.49352E-09	1.21518E-10	2.28171E-11	5.48587E-13	8.13666E-17	1.89892E-20	4.43205E-24	2.41436E-31
MN	25	56	9.29152E+03	1.28395E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.96349E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	2.06706E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	6.84866E-05	3.07734E-05	1.80533E-05	4.75893E-06	3.30683E-07	2.29781E-08	1.59667E-09	7.70943E-12
FE	26	59	3.89409E+06	7.11433E-07	3.41597E-14	4.51260E-19	2.86242E-31	1.15163E-55	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	1.16583E-22	1.16539E-22	1.16579E-22	1.16574E-22	1.16566E-22	1.16558E-22	1.16550E-22	1.16534E-22
FE	26	61	3.60001E+02	1.14392E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	3.72013E-13	2.27500E-14	3.53128E-15	3.35203E-17	3.32033E-21	2.72144E-25	2.45217E-29	1.99085E-37
CO	27	58	6.13485E+06	2.00320E-10	4.52512E-15	3.61609E-18	6.52762E-26	2.12702E-41	6.93090E-57	2.25843E-72	0.00000E+00
CO	27	60	1.65983E+08	1.22942E-06	8.27942E-07	6.36112E-07	3.29130E-07	8.81118E-08	2.35885E-08	6.31491E-09	4.52586E-10
CO	27	61	5.94007E+03	1.62079E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	4.10950E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	3.13024E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	2.17643E-10	2.17637E-10	2.17633E-10	2.17624E-10	2.17605E-10	2.17586E-10	2.17567E-10	2.17529E-10
NI	28	63	2.90020E+09	3.09654E-08	3.02726E-08	2.98194E-08	2.87158E-08	2.66296E-08	2.46950E-08	2.29009E-08	1.96044E-08
NI	28	65	9.21738E+03	4.59565E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	3.55592E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
			TOTAL (CURIES/CC)	8.88467E-05	3.16320E-05	1.87195E-05	5.11699E-06	4.45648E-07	7.14861E-08	3.10370E-08	2.03791E-08

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TOTAL (CURIES)	8.45559E+02	3.81043E+02	1.78154E+02	4.86987E+01	4.24126E+00	6.80336E-01	2.95381E-01	1.93949E-01

COMPONENT : TOP HEAD COVER PLATES - R4
VOLUME : 1.05700E+06 CC
: ABOVE VOLUME IS FOR BOTH LAYERS OF COVER PLATES ON THE TOP HEAD
: OF THE PCRV
:
: (INTERVAL 43 TOTGUPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
AL	13	28	1.38629E+02	3.81797E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	4.83632E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.10523E-09	9.49400E-33	3.98212E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	52	2.02084E+02	3.29386E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	4.38878E-09	5.75256E-21	6.88972E-29	1.08163E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10345E+02	2.07307E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	7.38753E-17	7.38753E-17	7.38752E-17	7.38752E-17	7.38750E-17	7.38749E-17	7.38748E-17	7.38745E-17
MN	25	54	2.61565E+07	1.02860E-07	8.36905E-09	1.57143E-09	2.40075E-11	5.60338E-15	1.30780E-18	3.05239E-22	1.66279E-29
MN	25	56	9.29152E+03	7.51708E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.31922E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.42176E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.27911E-05	5.74768E-06	3.37177E-06	8.88812E-07	6.17607E-08	4.29155E-09	2.98206E-10	1.43987E-12
FE	26	59	3.89409E+06	4.54697E-07	2.18324E-14	2.88413E-19	1.82945E-31	7.36040E-56	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	60	1.65983E+08	7.00078E-07	4.71462E-07	3.62226E-07	1.87419E-07	5.01742E-08	1.34322E-08	3.59595E-09	2.57720E-10
TOTAL (CURIES/CC)				2.16115E-05	6.22731E-06	3.73557E-06	1.07026E-06	1.11935E-07	1.77238E-08	3.89416E-09	2.59159E-10
TOTAL (CURIES)				2.28433E+01	6.58226E+00	3.94849E+00	1.13760E+00	1.18315E-01	1.87340E-02	4.11612E-03	2.73931E-04

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COMPONENT : TOP HEAD - KAOWOOL - R4
VOLUME : 7.27800E+06 CC
: ABOVE VOLUME IS FOR BOTH LAYERS OF KAOWOOL ON THE TOP HEAD
: OF THE PCRV
:
: (INTERVAL 44 TOTGUPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
				CONCENTRATION (CURIES/CC) AT TIME							
LI	3	8	8.40178E-01	2.28943E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	2.81216E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88[illegible]3E+13	1.08166E-17	1.08166E-17	1.08166E-17	1.08165E-17	1.08165E-17	1.08165E-17	1.08165E-17	1.08164E-17
B	5	12	1.99754E-02	3.49322E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	6.20195E-13	6.19971E-13	6.19821E-13	6.19446E-13	6.18698E-13	6.17951E-13	6.17204E-13	6.15714E-13
F	9	20	1.10023E+01	2.23849E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	3.56857E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	1.88837E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	1.03950E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	8.32208E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	37	3.02684E+06	6.53911E-11	2.51179E-20	1.32727E-26	2.69414E-42	1.10993E-73	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	4.16411E-16	4.13203E-16	4.11078E-16	4.05812E-16	3.95483E-16	3.85417E-16	3.75607E-16	3.56730E-16
CA	20	41	2.[illegible]053E+12	2.02458E-13	2.02453E-13	2.02450E-13	2.02441E-13	2.02423E-13	2.02406E-13	2.02388E-13	2.02353E-13
CA	20	45	1.42623E+07	1.62051E-10	1.62712E-12	7.57295E-14	3.53902E-17	7.72877E-24	1.68787E-30	3.68612E-37	1.7[illegible]804E-50
CA	20	47	3.91608E+05	5.33238E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	5.00578E-11	5.87211E-15	1.40715E-17	3.95572E-24	3.12583E-37	2.47002E-50	1.95182E-63	0.00000E+00
SC	21	47	2.96217E+05	6.30716E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	1.20608E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	3.91392E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.05147E+02	[illegible]2273E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	[illegible]9381E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)				[illegible].2787E-07	2.45584E-12	8.98436E-13	8.22339E-13	8.21528E-13	8.20753E-13	8.19979E-13	8.18435E-13
TOTAL (CURIES)				6.27936E+00	1.78736E-05	6.53881E-06	5.98498E-06	5.97908E-06	5.97344E-06	5.96781E-06	5.95657E-06

COMPONENT : TOP HEAD LINER - R4
VOLUME : 1.60000E+06 CC
: ABOVE VOLUME IS FOR THE PCRV LINER AND COOLING TUBES ON THE
: TOP HEAD OF THE PCRV
:
: (INTERVAL 45 TOTGUPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
				CONCENTRATION (CURIES/CC) AT TIME							
AL	13	28	1.38629E+02	1.70419E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	2.35134E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	4.89527E-09	4.20507E-32	1.76375E-47	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	3.31805E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	3.49678E-13	3.50391E-14	7.55919E-15	1.63412E-16	7.63656E-20	3.56875E-23	1.66774E-26	3.64214E-33
V	23	52	2.02084E+02	3.24349E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	5.85703E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	6.38470E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	1.95544E-06	2.56308E-18	3.06975E-26	4.81926E-46	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	3.26343E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	4.00648E-16	4.00648E-16	4.00648E-16	4.00648E-16	4.00647E-16	4.00646E-16	4.00646E-16	4.00644E-16
MN	25	54	2.61565E+07	5.52602E-07	4.49665E-08	8.44323E-09	1.28991E-10	3.01067E-14	7.02675E-18	1.64003E-21	8.93408E-29
MN	25	56	9.29152E+03	1.59237E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	7.04722E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	7.70170E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.60157E-04	7.19644E-05	4.22181E-05	1.11289E-05	7.73309E-07	5.37348E-08	3.73386E-09	1.80287E-11
FE	26	59	3.89409E+06	5.18037E-06	1.52707E-13	2.01730E-18	1.27961E-30	5.14822E-55	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	1.28284E-20	1.28281E-20	1.28280E-20	1.28275E-20	1.28266E-20	1.28257E-20	1.28249E-20	1.28231E-20
FE	26	61	3.60001E+02	1.26107E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	4.09744E-11	2.50574E-17	3.88943E-13	3.69200E-15	3.32666E-19	2.99746E-23	2.70087E-27	2.19277E-35
CO	27	58	6.13405E+06	2.24946E-08	5.08141E-13	4.06063E-16	7.33007E-24	2.38850E-38	7.78293E-55	2.53607E-70	0.00000E+00
CO	27	60	1.65983E+08	4.45579E-06	3.00071E-06	2.30546E-06	1.19287E-06	3.19344E-07	8.54920E-08	2.28872E-08	1.64031E-09
CO	27	61	5.94007E+03	1.71408E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	1.14199E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	3.45070E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	1.85594E-10	1.85589E-10	1.85586E-10	1.85578E-10	1.85562E-10	1.85546E-10	1.85530E-10	1.85498E-10
NI	28	63	2.90020E+09	2.17178E-08	2.12319E-08	2.09141E-08	2.01401E-08	1.86769E-08	1.73201E-08	1.60618E-08	1.38128E-08
NI	28	65	9.21738E+03	9.83719E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	7.41938E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	2.25947E-14	2.50647E-18	5.78681E-21	1.48215E-27	9.72235E-41	6.37751E-54	4.18342E-67	0.00000E+00
ZR	40	89	2.82749E+05	2.25372E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	2.08564E-18	2.08564E-18	2.08564E-18	2.08563E-18	2.08562E-18	2.08561E-18	2.08561E-18	2.08559E-18
ZR	40	95	5.63534E+06	5.08900E-13	4.46046E-18	1.89619E-21	7.06534E-30	9.80891E-47	1.36178E-63	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	7.06327E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	9.27152E-16	9.24401E-16	9.22572E-16	9.18016E-16	9.08970E-16	9.00013E-16	8.91144E-16	8.73668E-16
NB	41	92	8.81746E+05	1.47545E-11	6.46752E-44	1.73225E-65	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	2.76106E-16	2.76077E-16	2.76058E-16	2.76010E-16	2.75914E-16	2.75818E-16	2.75723E-16	2.75531E-16
NB	41	95	3.02684E+06	4.27848E-12	1.64345E-21	8.68421E-28	1.76275E-43	7.26216E-75	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	7.60549E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	7.45424E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	2.02109E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	1.32823E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	3.76884E-12	3.76797E-12	3.76739E-12	3.76594E-12	3.76304E-12	3.76014E-12	3.75725E-12	3.75147E-12
MO	42	99	2.41515E+05	2.38291E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	1.05703E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)				3.37383E-04	7.50315E-05	4.45531E-05	1.23422E-05	1.11152E-06	1.56736E-07	4.28721E-08	1.56604E-08
TOTAL (CURIES)				5.39813E+02	1.20050E+02	7.12849E+01	1.97475E+01	1.77843E+00	2.50778E-01	6.85953E-02	2.50567E-02

COMPONENT : REGION CONSTRAINT DEVICE -RK
VOLUME : 9.47825E+05 CC
: ABOVE VOLUME IS FOR ALL RCD DEVICES. 84 DEVICES WITH PRIMARY
: VOLUME OF 1.0021E4 CC EACH. 3 PINS PER DEVICE: 1.26E3 CC PER
: 3 PINS
: (INTERVALS 36-39 UPRCDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
				CONCENTRATION (CURIES/CC) AT TIME							
LI	3	8	8.40178E-01	1.01552E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	5.20415E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	2.42379E-16	2.42379E-16	2.42379E-16	2.42379E-16	2.42378E-16	2.42377E-16	2.42377E-16	2.42375E-16
B	5	12	1.99754E-02	2.01334E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	3.21844E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	3.83674E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	5.78459E-09	4.96900E-32	2.88417E-47	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	45	1.42623E+07	5.83589E-11	5.85970E-13	2.72723E-14	1.27450E-17	2.78334E-24	6.07850E-31	1.32747E-37	6.33119E-51
CA	20	47	3.91608E+05	2.10061E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	2.73241E-09	3.20529E-23	7.68696E-16	2.15923E-22	1.70624E-35	1.34826E-48	1.06540E-61	0.00000E+00
SC	21	47	2.96217E+05	4.07397E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	4.24009E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	3.34744E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	3.24362E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.65226E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.15628E-11	1.15364E-12	2.49960E-13	5.49356E-15	2.52548E-25	1.18008E-21	5.51471E-25	1.20435E-31
V	23	52	2.02086E+02	3.28424E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	5.45644E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	2.15647E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	3.55259E-04	4.65652E-16	5.57702E-24	8.75547E-44	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	2.89886E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	2.20125E-16	2.20125E-16	2.20125E-16	2.20124E-16	2.20124E-16	2.20123E-16	2.20122E-16	2.20122E-16
MN	25	54	2.61565E+07	4.91626E-07	4.00004E-08	7.51075E-09	1.14745E-10	2.67817E-14	6.25071E-18	1.45891E-21	7.94740E-29
MN	25	56	9.29152E+03	1.73347E-04	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	5.61288E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	4.43303E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.47290E-04	6.61625E-05	3.88261E-05	1.02347E-05	7.11178E-07	4.94175E-08	3.43386E-09	1.65802E-11
FE	26	59	3.89409E+06	5.14337E-06	1.50930E-13	1.99384E-18	1.26472E-30	5.08833E-55	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	1.21132E-18	1.21129E-18	1.21127E-18	1.21123E-18	1.21115E-18	1.21106E-18	1.21098E-18	1.21081E-18
FE	26	61	3.60001E+02	1.15439E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	3.30815E-09	2.32883E-10	3.61134E-13	3.09179E-17	2.78583E-21	2.51019E-25	2.03796E-33	2.03796E-33
CO	27	58	6.13405E+06	8.18061E-06	1.84796E-10	1.47673E-13	2.66573E-21	8.68628E-37	2.83042E-52	9.22293E-68	0.00000E+00
CO	27	60	1.65983E+08	5.70287E-04	3.84055E-04	2.95071E-04	1.52673E-04	4.08722E-05	1.09419E-05	2.92928E-06	2.09940E-07
CO	27	61	5.94007E+03	5.29166E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	6.42457E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	3.16053E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	9.75821E-08	9.75796E-08	9.75779E-08	9.75736E-08	9.75651E-08	9.75567E-08	9.75483E-08	9.75313E-08
NI	28	63	2.90020E+09	1.15805E-05	1.13214E-05	1.11519E-05	1.07392E-05	9.95897E-06	9.23547E-06	8.56452E-06	7.36533E-06
NI	28	65	9.21738E+03	1.28018E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	1.57802E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	1.04838E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	6.38054E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	1.10855E-14	1.10855E-14	1.10855E-14	1.10855E-14	1.10854E-14	1.10854E-14	1.10853E-14	1.10852E-14
NB	41	92	8.80746E+05	1.21218E-09	5.31351E-42	1.42316E-63	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	4.45010E-08	4.44964E-08	4.44933E-08	4.44856E-08	4.44701E-08	4.44547E-08	4.44393E-08	4.44084E-08
		TOTAL	(CURIES/CC)	1.28607E-03	4.61741E-04	3.45198E-04	1.73789E-04	5.16843E-05	2.03688E-05	1.16392E-05	7.71722E-06
		TOTAL	(CURIES)	1.21897E+03	4.37650E+02	3.27187E+02	1.64721E+02	4.89877E+01	1.93061E+01	1.10319E+01	7.31457E+00

COMPONENT : BOROHAYSD BOTTOM REFLECTORS WITH HASTELLOY-X CANS
VOLUME : 8.28520E+04 CC
: ABOVE VOLUME IS FOR THE TOTAL NUMBER OF HASTELLOYX CANS ONLY.
: ONE CAN 4.13CC. BOTTOM NCR ELEMENTS, 208 ELE W/ 72 CANS.
: CR ELE, 37 ELEM W/ 9 CANS. BOTT NCR SIDE ELE, 66 ELE W/72 CANS
: (INTERVALS 25-32 TOTBDNR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
				CONCENTRATION (CURIES/CC) AT TIME							
NA	11	24	5.41521E+04	8.05154E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	3.48970E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	1.77308E-03	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.80751E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.83641E-09	1.84015E-10	3.96938E-11	8.58196E-13	4.01051E-16	1.87421E-19	8.75849E-23	1.91275E-29
V	23	52	2.02086E+02	2.50451E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	4.22507E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	3.35918E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	3.40815E-02	4.46721E-14	5.35028E-22	8.39951E-42	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	1.59785E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	4.20351E-15	4.20351E-15	4.20351E-15	4.20350E-15	4.20349E-15	4.20348E-15	4.20347E-15	4.20347E-15
MN	25	54	2.61565E+07	2.10779E-05	9.01340E-07	1.69242E-07	2.58559E-09	6.03480E-13	1.40849E-16	3.28740E-20	1.79681E-27
MN	25	56	9.29152E+03	3.91240E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.10717E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	8.23399E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	9.23011E-03	4.15164E-03	2.43557E-03	6.42026E-04	4.46123E-05	3.09997E-06	2.15407E-07	1.04008E-09
FE	26	59	3.89409E+06	1.27555E-04	6.12461E-12	9.09081E-17	5.13214E-29	2.06480E-53	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	1.53318E-16	1.53314E-16	1.53312E-16	1.53307E-16	1.53296E-16	1.53286E-16	1.53275E-16	1.53254E-16
FE	26	61	3.60001E+02	1.58313E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	4.89026E-07	2.99058E-08	4.64200E-09	4.40637E-11	3.97034E-15	3.57744E-19	3.22347E-23	2.61706E-31
CO	27	58	6.13405E+06	5.29772E-04	1.19673E-08	9.56323E-12	1.72631E-19	5.62519E-35	1.83297E-50	5.97272E-66	0.00000E+00
CO	27	60	1.65983E+08	7.58715E-02	4.92431E-02	3.78337E-02	1.95755E-02	5.24058E-03	1.40206E-03	3.75589E-04	2.69182E-05
CO	27	61	5.94007E+03	5.31062E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	4.80711E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	4.11323E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	1.02687E-05	1.02685E-05	1.02683E-05	1.02679E-05	1.02670E-05	1.02661E-05	1.02652E-05	1.02634E-05
NI	28	63	2.90020E+09	1.37597E-03	1.34519E-03	1.32505E-03	1.27601E-03	1.18331E-03	1.09735E-03	1.01763E-03	8.75138E-04
ZR	40	88	7.28602E+06	2.17798E-10	2.41612E-14	5.57822E-17	1.42872E-23	9.37190E-37	6.14763E-50	4.03263E-63	0.00000E+00
ZR	40	89	2.82249E+05	1.92713E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	1.84852E-14	1.84851E-14	1.84851E-14	1.84851E-14	1.84850E-14	1.84849E-14	1.84848E-14	1.84846E-14
ZR	40	95	5.63534E+06	4.20100E-09	3.66219E-14	1.56532E-17	5.83241E-26	8.09732E-43	1.12416E-59	1.56069E-76	0.00000E+00
ZR	40	97	6.04840E+04	5.54480E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.70888E+10	6.48396E-12	6.46473E-12	6.45192E-12	6.42005E-12	6.35679E-12	6.29415E-12	6.23213E-12	6.10991E-12
NB	41	92	8.80746E+05	1.45513E-07	6.37848E-40	1.70840E-61	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	2.44776E-12	2.44756E-12	2.44733E-12	2.44691E-12	2.44606E-12	2.44521E-12	2.44436E-12	2.44267E-12
NB	41	95	3.02684E+06	4.08326E-08	1.56846E-17	8.28796E-24	1.68232E-39	6.93079E-71	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	6.16916E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	6.64838E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	1.45299E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	9.09033E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	4.85291E-08	4.85179E-08	4.85104E-08	4.84917E-08	4.84544E-08	4.84171E-08	4.83798E-08	4.83054E-08
MO	42	99	2.41515E+05	3.68841E-03	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	1.67898E-03	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF	72	177	9.78261E+08	1.50092E-12	1.48354E-12	1.34216E-12	1.20019E-12	9.59749E-13	7.67416E-13	6.13652E-13	3.92378E-13
HF	72	179	1.89384E+10	7.92477E-14	7.89736E-14	7.87914E-14	7.83576E-14	7.74381E-14	7.65488E-14	7.56697E-14	7.39118E-14
HF	72	180	1.98723E+04	7.86854E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF	72	182	2.84077E+14	6.58562E-19	6.58561E-19	6.58561E-19	6.58561E-19	6.58561E-19	6.58560E-19	6.58560E-19	6.58559E-19
W	74	181	1.20968E+07	7.53573E-08	3.32036E-10	8.92399E-12	1.05682E-15	1.48207E-23	2.07843E-31	2.91473E-39	5.73746E-55
W	74	185	6.47801E+06	6.94606E-04	2.76910E-08	3.23152E-11	1.50345E-18	3.25402E-33	7.04300E-48	1.52437E-62	0.00000E+00
W	74	187	8.59984E+04	1.27966E-02	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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TOTAL (CURIES/CC)	1.39163E-01	5.47512E-02	4.16048E-02	2.15038E-02	6.47881E-03	2.51372E-03	1.40374E-03	9.12569E-04
TOTAL (CURIES)	1.15300E+04	4.53624E+03	3.44704E+03	1.78164E+03	5.36782E+02	2.08267E+02	1.16303E+02	7.55916E+01

COMPONENT : CONCRETE - RADIAL FIRST 6 INCHES - R4
VOLUME : 4.90000E+07 CC
: ABOVE VOLUME IS FOR THE FIRST 6 INCHES OF CONCRETE IN THE
: RADIAL DIRECTION
:
: (INTERVALS 61-63 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	7.63071E-09	6.44121E-09	5.75311E-09	4.33751E-09	2.46556E-09	1.40149E-09	7.96648E-10	2.57405E-10
HE	2	6	8.09751E-01	9.23546E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	1.63496E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	2.60300E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	1.67431E-19	1.67431E-19	1.67431E-19	1.67431E-19	1.67430E-19	1.67430E-19	1.67429E-19	1.67429E-19
B	5	12	1.99754E-02	2.26719E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	3.83653E-12	3.83514E-12	3.83422E-12	3.83190E-12	3.82727E-12	3.82265E-12	3.81803E-12	3.80881E-12
F	9	20	1.10023E+01	1.80416E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	1.42537E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	3.13560E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	7.24425E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	1.44192E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	2.79142E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.09603E-10	8.64190E-34	3.62472E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	3.91595E-10	6.96739E-14	3.20407E-16	1.24058E-22	3.93054E-35	1.24500E-47	3.94412E-60	0.00000E+00
S	16	37	3.04012E+02	6.59890E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	3.73727E-13	3.73725E-13	3.73723E-13	3.73719E-13	3.73711E-13	3.73703E-13	3.73694E-13	3.73677E-13
AR	18	37	3.02684E+06	2.88556E-09	1.10840E-18	5.85695E-25	1.18886E-43	4.89786E-72	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	6.48889E-11	6.43881E-11	6.40569E-11	6.32364E-11	6.16268E-11	6.00583E-11	5.85296E-11	5.55880E-11
AR	18	41	6.60140E+03	3.44732E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	5.05192E-16	5.05192E-16	5.05192E-16	5.05192E-16	5.05192E-16	5.05192E-16	5.05192E-16	5.05192E-16
K	19	42	4.47192E+04	1.10105E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	1.04731E-10	1.04728E-10	1.04727E-10	1.04722E-10	1.04713E-10	1.04704E-10	1.04695E-10	1.04677E-10
CA	20	45	1.42623E+07	3.37898E-08	3.39276E-10	2.57906E-11	7.37934E-15	1.61155E-21	3.51945E-28	7.68607E-35	3.66376E-48
CA	20	47	3.91608E+05	1.64907E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	4.49415E-09	5.27194E-13	1.26334E-15	3.55142E-22	2.80635E-35	2.21756E-48	1.75233E-61	0.00000E+00
SC	21	47	2.96217E+05	5.96796E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	1.43669E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	6.02797E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	2.45032E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	4.84379E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	4.26124E-16	4.26993E-17	9.21178E-18	1.99137E-19	9.30606E-23	4.34895E-26	2.03234E-29	4.43839E-36
V	23	52	2.02084E+02	1.27266E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19022E+02	3.55010E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.60117E+01	4.37220E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	2.05734E-09	2.69665E-21	3.22972E-29	5.07040E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10047E+02	3.24363E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	3.87675E-19	3.87675E-19	3.87675E-19	3.87675E-19	3.87674E-19	3.87673E-19	3.87672E-19	3.87671E-19
MN	25	54	2.61565E+07	4.13158E-10	3.36160E-11	6.31198E-12	9.64309E-14	2.25071E-17	5.25305E-21	1.22605E-24	6.67892E-32
MN	25	56	9.29152E+03	3.87376E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.28933E+02	5.83697E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	7.38046E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	4.11797E-07	1.85035E-07	1.08551E-07	2.86146E-08	1.98833E-09	1.38163E-10	9.60051E-12	4.63554E-14
FE	26	59	3.89409E+06	4.76340E-09	2.28716E-16	3.62141E-21	1.91653E-33	7.71075E-58	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	9.08103E-25	9.08074E-25	9.08071E-25	9.08040E-25	9.07977E-25	9.07914E-25	9.07851E-25	9.07725E-25
FE	26	61	3.60061E+02	8.93923E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	2.90257E-15	1.77504E-16	2.75553E-17	2.61537E-19	2.35696E-23	2.12336E-27	1.91326E-31	1.55333E-39
CO	27	58	6.13405E+06	1.21351E-12	2.74126E-17	2.19956E-20	3.95434E-28	1.28852E-35	4.19864E-59	1.36813E-74	0.00000E+00
CO	27	60	1.65983E+08	1.12427E-08	7.57127E-09	5.81704E-09	3.00979E-09	8.05755E-10	2.15710E-10	5.77479E-11	4.13876E-12
CO	27	61	5.94007E+03	1.20125E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	4.50467E-14	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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CO 27 64	2.99999E-01	2.44600E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI 28 59	2.52053E+12	2.89439E-14	2.89431E-14	2.89426E-14	2.89413E-14	2.89388E-14	2.89363E-14	2.89338E-14	2.89288E-14	
NI 28 63	2.90020E+09	4.07393E-12	3.98279E-12	3.92316E-12	3.77797E-12	3.50351E-12	3.24898E-12	3.01295E-12	2.59108E-12	
NI 28 65	9.21738E+03	3.50438E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU 29 64	4.62098E+04	6.04308E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB 37 86	1.60972E+06	5.12525E-16	1.01210E-33	1.59305E-45	4.95188E-75	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 87	1.00799E+04	2.93777E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 89	4.50096E+06	1.86726E-14	8.69679E-21	5.22555E-25	1.46240E-35	1.14529E-56	8.96927E-78	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 90	8.86377E+08	5.56571E-19	5.16854E-19	4.91964E-19	4.34856E-19	3.39758E-19	2.65457E-19	2.07405E-19	1.26610E-19	
SR 38 91	3.48315E+04	3.92752E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 92	9.75604E+03	1.80640E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 93	4.50095E+02	9.17660E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 89	1.56998E+01	3.50459E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 90	2.30281E+05	7.69667E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 91	5.09667E+06	4.75094E-15	1.21625E-20	2.27608E-24	1.09043E-33	2.50265E-52	5.74387E-71	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 92	1.27440E+04	1.41579E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 94	1.12200E+03	2.98184E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 96	9.80406E+00	2.69801E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 88	7.20602E+06	7.48276E-18	8.30094E-22	1.91648E-24	4.90857E-31	3.21985E-44	2.11211E-57	1.38547E-70	0.00000E+00	0.00000E+00
ZR 40 89	2.82249E+05	7.86870E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 93	4.74758E+13	1.60486E-16	1.60486E-16	1.60486E-16	1.60485E-16	1.60484E-16	1.60484E-16	1.60483E-16	1.60481E-16	
ZR 40 95	5.63534E+06	6.12649E-14	5.36981E-19	2.28277E-22	8.50575E-31	1.18086E-47	1.63941E-64	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 97	6.04840E+04	2.93740E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 91	2.20888E+10	3.47467E-19	3.46436E-19	3.45750E-19	3.44043E-19	3.40653E-19	3.37296E-19	3.33972E-19	3.27423E-19	
NB 41 92	8.80746E+07	1.14725E-14	5.02888E-47	1.34692E-68	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 94	6.30134E+1.	3.22766E-14	3.22732E-14	3.22710E-14	3.22654E-14	3.22542E-14	3.22430E-14	3.22318E-14	3.22094E-14	
NB 41 95	3.02684E+06	1.43703E-15	5.51990E-25	2.91680E-31	5.92062E-47	2.43917E-78	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 96	8.28132E+04	2.70014E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 97	4.33217E+03	2.56483E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 98	3.06025E+03	7.47213E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 100	3.09996E+00	5.03448E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 93	2.84077E+11	5.46864E-16	5.46738E-16	5.46654E-16	5.46443E-16	5.46023E-16	5.45603E-16	5.45183E-16	5.44344E-16	
MO 42 99	2.41515E+05	4.04362E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 101	8.76292E+02	1.86137E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 104	2.61565E+02	5.87357E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 106	7.84813E+03	3.27746E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD 46 107	2.05134E+14	1.57946E-23	1.57946E-23	1.57946E-23	1.57946E-23	1.57946E-23	1.57946E-23	1.57946E-23	1.57946E-23	1.57946E-23
PD 46 109	4.83704E+04	3.28096E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 106	7.34422E+05	1.27642E-16	1.99912E-55	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 108	4.10389E+09	2.55593E-12	2.51538E-12	2.48871E-12	2.42326E-12	2.29748E-12	2.17823E-12	2.06517E-12	1.85635E-12	
AG 47 110	2.15826E+07	4.53424E-10	2.16784E-11	2.85568E-12	1.79852E-14	7.13390E-19	2.82966E-23	1.12239E-27	1.76590E-36	
CD 48 109	3.99508E+07	2.90326E-17	5.61728E-18	1.87911E-18	1.21624E-19	5.09508E-22	2.13445E-24	8.94161E-27	1.56921E-31	
CD 48 111	2.92221E+03	6.61229E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 115	1.92541E+05	1.95793E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 117	1.22399E+04	5.80017E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 119	5.97541E+02	3.25361E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 111	2.42444E+05	9.13048E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 112	1.25408E+03	5.48984E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 114	4.27869E+06	9.42168E-18	2.05758E-24	7.46185E-29	5.90978E-40	3.70677E-62	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 115	1.61497E+04	1.09473E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 116	1.40998E+01	4.73686E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 117	6.95931E+03	6.97948E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 118	2.63955E+02	2.39957E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 119	1.26027E+02	2.56918E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 120	4.40093E+01	5.20035E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 122	1.00998E+01	7.10814E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 113	9.94473E+06	6.39018E-13	8.70438E-18	1.86960E-17	1.79034E-22	5.01587E-32	1.40528E-41	3.93707E-51	3.09034E-70	
SN 50 121	9.72136E+04	1.50890E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 123	1.07967E+07	1.93634E-12	4.43960E-15	7.71943E-17	3.07750E-21	4.89104E-30	7.77527E-39	1.23540E-47	3.12046E-65	
SN 50 125	8.12599E+05	2.71148E-11	2.29810E-46	9.55305E-70	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
I 53 130	4.44981E+04	2.41768E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	1.17996E-15	5.76489E-78	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	1.01183E-14	1.05061E-65	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	1.40496E-09	5.10182E-10	2.59676E-10	4.79954E-11	1.63958E-12	5.60102E-14	1.91338E-15	2.23293E-18	
EU 63 152	4.17559E+08	9.18333E-09	7.84780E-09	7.06718E-09	5.43866E-09	3.22096E-09	1.90756E-09	1.12972E-09	3.96235E-10	
EU 63 154	2.69812E+08	1.02174E-09	8.01151E-10	6.81234E-10	4.54205E-10	2.01913E-10	8.97583E-11	3.99012E-11	7.88511E-12	
LU 71 174	1.22687E+07	5.81547E-21	2.76479E-23	7.81711E-25	1.05078E-28	1.89862E-36	3.43050E-44	6.19836E-52	2.02359E-67	
LU 71 177	1.38242E+07	2.23288E-18	1.93783E-20	8.18370E-22	2.99942E-25	4.02907E-32	5.41216E-39	7.27003E-46	1.31182E-59	
HF 72 173	8.49653E+04	4.71461E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 175	6.04840E+06	5.15451E-11	1.00071E-15	7.22862E-19	1.01375E-26	1.99370E-42	3.92094E-58	7.71116E-74	0.00000E+00	
HF 72 178	9.78261E+08	2.41513E-19	2.25847E-19	2.15969E-19	1.93124E-19	1.54429E-19	1.23487E-19	9.87440E-20	6.31383E-20	
HF 72 179	1.89384E+10	1.18119E-20	1.17710E-20	1.17439E-20	1.16762E-20	1.15421E-20	1.14096E-20	1.12786E-20	1.10210E-20	
HF 72 180	1.98723E+04	1.94534E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 181	3.66357E+06	4.67744E-10	7.77829E-18	5.06762E-23	5.49052E-36	6.44455E-62	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 182	2.84077E+14	1.19367E-25	1.19367E-25	1.19367E-25	1.19367E-25	1.19367E-25	1.19367E-25	1.19367E-25	1.19366E-25	
TA 73 180	2.93458E+04	2.20779E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA 73 182	9.89362E+06	9.31308E-10	1.22607E-12	1.47275E-14	2.32902E-19	5.82425E-29	1.45649E-38	3.64229E-48	2.27779E-67	
W 74 181	1.20968E+07	1.63758E-14	7.21543E-17	1.93926E-18	2.29655E-22	3.22066E-30	4.51661E-38	6.33395E-46	1.24571E-61	
W 74 185	6.47801E+06	5.63158E-11	1.44776E-15	1.68952E-18	7.86043E-26	1.70129E-40	3.68227E-55	7.96980E-70	0.00000E+00	
W 74 187	8.59984E+04	7.27117E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 203	4.02525E+06	6.56616E-17	5.45963E-24	1.04006E-28	1.64749E-40	4.13341E-64	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 205	3.11947E+02	4.94050E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 204	1.13282E+08	8.05937E-19	4.64919E-19	3.22177E-19	1.28792E-19	2.05813E-20	3.28896E-21	5.25586E-22	1.34219E-23	
TL 81 206	2.52054E+02	1.17122E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 207	2.86188E+02	9.72527E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 203	1.86782E+05	2.45373E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 205	4.76390E+14	1.41814E-19	1.41814E-19	1.41814E-19	1.41814E-19	1.41814E-19	1.41814E-19	1.41814E-19	1.41813E-19	
PB 82 207	7.95989E-01	2.45411E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURILS/CC)		4.25797E-06	2.08783E-07	1.28334E-07	4.20813E-08	8.86055E-09	3.92718E-09	2.20617E-09	8.34666E-10	
TOTAL (CURIES)		2.88641E+02	1.02304E+01	6.28835E+00	2.06196E+00	4.34167E-01	1.92432E-01	1.08102E-01	4.08986E-02	

COMPONENT : CONCRETE - RADIAL SECOND 6 INCHES - R4
VOLUME : 5.06000E+07 CC
: ABOVE VOLUME IS FOR THE SECOND 6 INCHES OF CONCRETE IN THE
: RADIAL DIRECTION
:
: (INTERVALS 64-66 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	2.57652E-09	2.17489E-09	1.94255E-09	1.46457E-09	8.32501E-10	4.73217E-10	2.68989E-10	8.69133E-11
HE	2	6	8.09751E-01	2.04869E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	5.51745E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00066E-16	5.45482E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	4.30787E-20	4.30786E-20	4.30786E-20	4.30785E-20	4.30784E-20	4.30783E-20	4.30782E-20	4.30779E-20
B	5	12	1.99754E-02	7.61523E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	1.29245E-12	1.29198E-12	1.29167E-12	1.29089E-12	1.28933E-12	1.28777E-12	1.28622E-12	1.28311E-12
F	9	20	1.10023E+01	2.45435E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	5.33630E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	1.04362E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	1.67843E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	1.14424E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	6.20325E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	2.24068E-11	1.92476E-34	8.07313E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	1.33682E-10	2.37852E-14	7.52423E-17	4.23507E-23	1.34163E-35	4.25018E-48	1.34644E-60	0.00000E+00
S	16	37	3.04012E+02	1.55168E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	1.22855E-13	1.22854E-13	1.22854E-13	1.22852E-13	1.22850E-13	1.22847E-13	1.22844E-13	1.22839E-13
AR	18	37	3.02684E+06	6.60894E-10	2.53862E-19	1.34144E-25	2.72291E-41	1.12178E-72	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	2.11174E-11	2.09547E-11	2.08469E-11	2.05799E-11	2.00561E-11	1.95456E-11	1.90481E-11	1.80908E-11
AR	18	41	6.60140E+03	7.97032E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.04146E+16	1.69085E-16	1.69085E-16	1.69085E-16	1.69085E-16	1.69085E-16	1.69085E-16	1.69085E-16	1.69085E-16
K	19	42	4.47192E+04	3.60669E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52052E+12	3.59956E-11	3.59947E-11	3.59940E-11	3.59925E-11	3.59894E-11	3.59862E-11	3.59831E-11	3.59769E-11
CA	20	45	1.42623E+07	1.11196E-08	1.11650E-10	5.19642E-12	2.42841E-15	5.36333E-22	1.15819E-28	2.52935E-35	1.20633E-48
CA	20	47	3.91608E+05	5.66890E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25849E+06	1.47315E-09	1.72808E-13	4.14107E-16	1.16411E-22	9.19890E-36	7.26892E-49	5.74394E-62	0.00000E+00
SC	21	47	2.96217E+05	1.26083E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	3.46948E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	1.38437E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	6.10679E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.45316E+02	1.61898E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.06309E-16	1.06526E-17	2.29814E-18	4.96805E-20	2.32166E-23	1.08497E-26	5.07024E-30	1.10728E-36
V	23	52	2.02084E+02	4.27961E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	8.39433E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	1.09018E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39863E+06	6.48279E-10	8.49726E-22	1.01770E-29	1.59771E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	7.48281E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	9.67164E-20	9.67153E-20	9.67163E-20	9.67162E-20	9.67160E-20	9.67157E-20	9.67152E-20	9.67157E-20
MN	25	54	2.61565E+07	9.28728E-11	7.55645E-12	1.41885E-12	2.16765E-14	5.05932E-18	1.18082E-21	2.75602E-25	1.50134E-32
MN	25	56	9.29152E+03	9.81972E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.36622E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.83092E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.41122E-07	6.34109E-08	3.72002E-08	9.80612E-09	6.81396E-10	4.73480E-11	3.29006E-12	1.58858E-24
FE	26	59	3.89409E+06	1.50462E-09	7.22449E-17	9.54378E-22	6.05378E-34	2.43560E-58	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	2.26357E-25	2.26352E-25	2.26349E-25	2.26341E-25	2.26326E-25	2.26310E-25	2.26294E-25	2.26263E-25
FE	26	61	3.60001E+02	2.23001E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	7.23803E-16	4.42633E-17	6.87059E-18	6.52183E-20	5.87647E-24	5.29496E-28	4.77103E-32	3.87348E-40
CO	27	58	6.13405E+06	2.64917E-13	5.96433E-18	4.78216E-21	8.63257E-29	2.81292E-44	9.16589E-60	2.98670E-75	0.00000E+00
CO	27	60	1.65983E+08	3.42894E-09	2.30919E-09	1.77416E-09	9.17967E-10	2.45750E-10	6.57900E-11	1.76127E-11	1.26229E-12
CO	27	61	5.94007E+03	2.31558E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	1.08801E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	6.13179E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	9.71595E-15	9.71570E-15	9.71553E-15	9.71511E-15	9.71427E-15	9.71342E-15	9.71258E-15	9.71089E-15
NI	28	63	2.90020E+09	1.58609E-12	1.35508E-12	1.33479E-12	1.28539E-12	1.19201E-12	1.10541E-12	1.62511E-12	8.81573E-13
NI	28	65	9.21738E+03	8.10201E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	1.96743E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.60972E+06	1.26636E-16	2.50072E-34	3.93614E-46	1.22352E-75	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	7.17004E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.50996E+06	4.39899E-15	2.04884E-21	1.23107E-25	3.44521E-35	2.69814E-57	2.11303E-78	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	1.34492E-19	1.24894E-19	1.18880E-19	1.05080E-19	8.21004E-20	6.41460E-20	5.01181E-20	3.05945E-20
SR	38	91	3.48315E+04	9.58225E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	4.48775E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.50095E+02	2.28577E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	8.71161E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	1.90984E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	1.13214E-15	2.89829E-21	5.42387E-25	2.59847E-34	5.96378E-53	1.36875E-71	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	3.43109E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	7.35166E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	6.73045E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	1.75816E-18	1.95040E-22	4.50298E-25	1.15333E-31	7.56541E-45	4.96264E-58	3.25531E-71	0.00000E+00
ZR	40	89	2.82249E+05	1.89299E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.77758E+13	5.14039E-17	5.14038E-17	5.14038E-17	5.14036E-17	5.14034E-17	5.14032E-17	5.14029E-17	5.14025E-17
ZR	40	95	5.63654E+06	1.52763E-14	1.33896E-19	5.69206E-23	2.12096E-31	2.94447E-48	4.06785E-65	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	2.62924E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	8.60401E-20	8.57849E-20	8.56152E-20	8.51923E-20	8.43528E-20	8.35216E-20	8.26986E-20	8.10768E-20
NB	41	92	8.80746E+05	2.79881E-15	1.22684E-47	3.28593E-69	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	7.06818E-15	7.06744E-15	7.06695E-15	7.06573E-15	7.06327E-15	7.06082E-15	7.05837E-15	7.05347E-15
NB	41	95	3.02684E+06	3.41334E-16	1.31113E-25	6.92820E-32	1.40631E-47	5.79369E-79	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	6.52968E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	6.14019E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	1.83600E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	1.25496E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	3.01539E-17	3.01469E-17	3.01423E-17	3.01307E-17	3.01075E-17	3.00843E-17	3.00611E-17	3.00149E-17
MO	42	99	2.41515E+05	4.78064E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	2.48271E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	1.43635E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84813E+03	7.79673E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.05134E+14	3.77952E-24	3.77952E-24	3.77952E-24	3.77951E-24	3.77951E-24	3.77951E-24	3.77950E-24	3.77949E-24
PD	46	109	4.83704E+04	7.86081E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34422E+05	3.18440E-17	4.98737E-56	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10389E+09	7.24943E-13	7.13443E-13	7.05878E-13	6.87314E-13	6.51639E-13	6.17816E-13	5.85748E-13	5.26519E-13
AG	47	110	2.15826E+07	9.61288E-11	4.99596E-12	5.05422E-13	3.81299E-15	1.51243E-19	5.99907E-24	2.37953E-28	3.74382E-37
CD	48	109	3.99508E+07	6.92473E-18	1.33981E-18	4.48197E-19	2.90092E-20	1.21526E-22	5.09100E-25	2.13271E-27	3.74280E-32
CD	48	111	2.92221E+03	1.59611E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	4.83610E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22399E+04	1.44697E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	8.11709E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42444E+05	2.25648E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.25400E+03	1.31000E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	2.26731E-18	4.95154E-25	1.79569E-29	1.42218E-40	8.92029E-63	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	2.61444E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.40998E+01	1.15378E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.95931E+03	1.67267E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63955E+02	5.91192E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	6.20051E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.40093E+01	1.29638E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.00998E+01	1.77333E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	113	9.94473E+06	3.50546E-14	4.77496E-17	5.86749E-19	9.82129E-24	2.75156E-33	7.70895E-43	2.15976E-52	1.69527E-71
SN	50	121	9.72156E+04	3.36460E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	4.74395E-13	1.08768E-15	1.89123E-17	7.53974E-22	1.19828E-30	1.90442E-39	3.02667E-48	7.64499E-66
SN	50	125	8.12599E+05	6.28499E-12	5.32681E-47	2.21432E-70	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

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I 53 130	4.44981E+04	5.76393E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	2.78044E-16	8.87102E-79	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	2.52430E-15	2.62105E-66	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	3.09243E-10	1.12295E-10	5.71566E-11	1.05641E-11	3.60884E-13	1.23283E-14	4.21149E-16	4.91483E-19	
EU 63 152	4.17559E+08	3.13657E-09	2.68041E-09	2.41380E-09	1.85758E-09	1.10012E-09	6.51525E-10	3.85854E-10	1.35334E-10	
EU 63 154	2.69817E+08	3.06366E-10	2.40223E-10	2.04266E-10	1.36192E-10	6.05428E-11	2.69137E-11	1.19642E-11	2.36432E-12	
LU 71 174	1.22682E+07	1.32763E-21	6.31179E-24	1.78459E-25	2.39885E-29	4.33440E-37	7.83156E-45	1.41504E-52	4.61970E-68	
LU 71 177	1.38242E+07	5.32533E-19	4.62165E-21	1.95178E-22	7.15349E-26	9.60915E-33	1.29078E-39	1.73387E-46	3.12864E-60	
HF 72 173	8.49653E+04	1.17620E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 175	6.04840E+06	1.55442E-11	3.01778E-16	2.17990E-19	3.05711E-27	6.01231E-43	1.18242E-58	2.32542E-74	0.00000E+00	
HF 72 178	9.78261E+08	5.87464E-20	5.44674E-20	5.20853E-20	4.65758E-20	3.72436E-20	2.97813E-20	2.38141E-20	1.52271E-20	
HF 72 179	1.89384E+10	2.83105E-21	2.82126E-21	2.81475E-21	2.79854E-21	2.76640E-21	2.73463E-21	2.70323E-21	2.66150E-21	
HF 72 180	1.98723E+04	4.70461E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 181	3.66357E+06	1.10185E-18	1.83231E-18	1.19377E-23	1.29339E-36	1.51813E-62	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 182	2.84077E+14	2.90268E-26	2.90268E-26	2.90268E-26	2.90267E-26	2.90267E-26	2.90267E-26	2.90267E-26	2.90266E-26	
TA 73 180	2.93458E+04	5.49764E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TA 73 182	9.89362E+06	1.68898E-10	2.22355E-13	2.67092E-15	4.22382E-20	1.05626E-29	2.64143E-39	6.60551E-49	4.13092E-68	
W 74 181	1.20968E+07	4.08517E-15	1.79999E-17	4.83776E-19	5.72909E-23	8.03440E-31	1.12674E-38	1.58010E-46	3.10761E-62	
W 74 185	6.47801E+06	7.66718E-12	3.05659E-16	3.56701E-19	1.65954E-26	3.59185E-41	7.77421E-56	1.68263E-70	0.00000E+00	
W 74 187	8.79984E+04	1.58675E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 203	4.02525E+06	1.60157E-17	1.33167E-24	2.53685E-29	4.01843E-41	1.00819E-64	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 205	3.11947E+02	1.22174E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 204	1.19282E+08	1.94857E-19	1.12407E-19	7.78949E-20	3.11389E-20	4.97609E-21	7.95195E-22	1.27075E-22	3.24512E-24	
TL 81 206	2.52054E+02	2.86654E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 207	2.86188E+02	2.36217E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 205	1.86782E+05	6.12134E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 206	4.76390E+14	3.53549E-20	3.53549E-20	3.53549E-20	3.53549E-20	3.53548E-20	3.53548E-20	3.53548E-20	3.53548E-20	
PB 82 207	7.95989E-01	6.10326E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TOTAL (CURIES/CC)	1.37849E-06	7.11123E-08	4.36596E-08	1.42530E-08	2.97998E-09	1.32349E-09	7.45777E-10	2.82788E-10		
TOTAL (CURIES)	6.97515E+01	3.59828E+00	2.20918E+00	7.21200E-01	1.50787E-01	6.69684E-02	3.77363E-02	1.43091E-02		

COMPONENT : CONCRETE - RADIAL THIRD 6 INCHES - R4
VOLUME : 5.22080E+07 CC
: ABOVE VOLUME IS FOR THE THIRD 6 INCHES OF CONCRETE IN THE
: RADIAL DIRECTION
:
: (INTERVALS 67-69 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	2.90743E-10	2.45421E-10	2.19203E-10	1.65266E-10	9.39419E-11	5.33992E-11	3.03536E-11	9.80756E-12
HE	2	6	8.09751E-01	4.53360E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	6.22637E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	1.19286E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	6.57780E-21	6.57779E-21	6.57779E-21	6.57778E-21	6.57774E-21	6.57774E-21	6.57772E-21	6.57769E-21
B	5	12	1.99754E-02	8.59112E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	1.45934E-13	1.45881E-13	1.45846E-13	1.45758E-13	1.45582E-13	1.45406E-13	1.45230E-13	1.44879E-13
F	9	20	1.10023E+01	5.92422E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	7.79988E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	1.17715E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	3.87948E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	1.31217E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	1.38616E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	5.01881E-12	4.31119E-35	1.80826E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	1.51564E-11	2.69668E-15	8.53078E-18	4.80156E-24	1.52109E-36	4.81870E-49	1.52654E-61	0.00000E+00
S	16	37	3.04017E+02	3.63756E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	1.37862E-14	1.37861E-14	1.37860E-14	1.37859E-14	1.37855E-14	1.37852E-14	1.37849E-14	1.37843E-14
AR	18	37	3.02684E+06	1.51628E-10	5.82433E-20	3.07766E-26	6.24714E-42	2.57369E-73	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	2.52059E-12	2.50116E-12	2.48830E-12	2.45643E-12	2.39390E-12	2.33297E-12	2.27359E-12	2.15932E-12
AR	18	41	6.60140E+03	1.84041E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	1.90736E-17	1.90736E-17	1.90736E-17	1.90736E-17	1.90736E-17	1.90736E-17	1.90736E-17	1.90736E-17
K	19	42	4.47192E+04	4.06076E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	4.08432E-12	4.08422E-12	4.08415E-12	4.08397E-12	4.08361E-12	4.08326E-12	4.08291E-12	4.08220E-12
CA	20	45	1.42623E+07	1.25972E-11	5.86327E-15	2.74005E-16	5.98391E-23	1.30682E-29	2.85394E-36	1.36114E-49	
CA	20	47	3.91608E+05	6.43007E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	1.64909E-10	1.93449E-14	4.63570E-17	1.30316E-23	1.02977E-36	8.13715E-50	6.43003E-63	0.00000E+00
SC	21	47	2.96217E+05	2.78825E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	8.29982E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	3.17513E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	1.49295E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.80540E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	2.60062E-17	2.60592E-18	5.62192E-19	1.21533E-20	5.67946E-24	2.65415E-27	1.24033E-30	2.70874E-37
V	23	52	2.02084E+02	4.82982E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	1.97617E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	2.66600E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	7.21929E-11	9.46263E-23	1.13332E-30	1.77922E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	1.72526E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	2.36596E-20	2.36596E-20	2.36596E-20	2.36595E-20	2.36595E-20	2.36594E-20	2.36594E-20	2.36593E-20
MN	25	54	2.61565E+07	2.09247E-11	1.70251E-12	3.19675E-13	4.68382E-15	1.13989E-18	2.66045E-22	6.20945E-26	3.38260E-33
MN	25	56	9.29152E+03	1.10055E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.91933E+02	3.18774E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	4.46324E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.60094E-08	7.19361E-09	4.22014E-09	1.11245E-09	7.73004E-11	5.37136E-12	3.73239E-13	1.80216E-15
FE	26	59	3.85609E+06	1.68564E-10	8.09364E-18	1.06920E-22	6.78209E-35	2.72842E-59	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	5.53439E-26	5.53428E-26	5.53420E-26	5.53401E-26	5.53362E-26	5.53324E-26	5.53286E-26	5.53209E-26
FE	26	61	3.6000 E+02	5.45506E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	1.77014E-16	1.08251E-17	1.68027E-18	1.59498E-20	1.43715E-24	1.29493E-28	1.16681E-32	9.47301E-41
CO	27	58	6.13405E+06	5.91778E-14	1.33680E-18	1.06825E-21	1.92837E-29	6.28357E-45	2.04750E-60	6 67178E-76	0.00000E+00
CO	27	60	1.65983E+08	3.81628E-10	2.57004E-10	1.97457E-10	1.02166E-10	2.73511E-11	7.32219E-12	1.96023E-12	1.40489E-13
CO	27	61	5.94007E+05	5.34230E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	2.60447E-15	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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CD 27 64	2.99599E-01	1.49260E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI 28 59	2.52053E+12	1.09502E-15	1.09499E-15	1.09497E-15	1.09492E-15	1.09483E-15	1.09473E-15	1.09464E-15	1.09445E-15	
NI 28 63	2.90020E+09	1.58548E-13	1.55001E-13	1.52680E-13	1.47030E-13	1.36348E-13	1.26443E-13	1.17257E-13	1.00839E-13	
NI 28 65	9.21738E+03	1.86907E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU 29 64	4.62098E+04	2.21467E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB 37 86	1.60972E+06	3.07925E-17	6.08070E-35	9.57105E-47	2.97509E-76	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 87	1.00799E+04	1.72954E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 89	4.50096E+06	1.03124E-15	4.80500E-22	2.88593E-26	8.07644E-37	6.32513E-58	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 90	8.86377E+08	3.21956E-20	2.98981E-20	2.84583E-20	2.51548E-20	1.96538E-20	1.53557E-20	1.19976E-20	7.32393E-21	
SR 38 91	3.48315E+04	2.31090E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 92	9.75604E+03	1.09497E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 93	4.50095E+02	5.58598E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 89	1.56998E+01	2.12595E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 90	2.30281E+05	2.15466E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 91	5.09667E+06	2.67909E-16	6.85850E-22	1.78350E-25	6.24900E-35	1.41126E-53	3.23901E-72	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 92	1.27440E+04	8.23331E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 94	1.12200E+03	1.78262E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 96	9.80496E+00	1.64638E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 88	7.20602E+06	4.11920E-19	4.56959E-23	1.05500E-25	2.70213E-32	1.77250E-45	1.16270E-58	7.62687E-72	0.00000E+00	
ZR 40 89	2.82249E+05	4.51448E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 93	4.74758E+13	5.80340E-18	5.80339E-18	5.80339E-18	5.80338E-18	5.80335E-18	5.80332E-18	5.80329E-18	5.80324E-18	
ZR 40 95	5.63534E+06	3.73581E-15	3.27441E-20	1.39199E-23	5.18664E-32	7.20067E-49	9.99688E-66	0.00000E+00	0.00000E+00	
ZR 40 97	6.04840E+04	1.92774E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 91	2.20888E+10	2.09501E-20	2.08879E-20	2.08466E-20	2.07436E-20	2.05392E-20	2.03368E-20	2.01364E-20	1.97415E-20	
NB 41 92	8.80746E+05	6.73675E-16	2.95300E-48	7.90926E-70	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 94	6.30134E+11	7.58323E-16	7.58244E-16	7.58191E-16	7.58065E-16	7.57797E-16	7.57534E-16	7.57271E-16	7.56745E-16	
NB 41 95	3.02684E+06	8.05470E-17	3.09396E-26	1.63489E-32	3.31856E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 96	8.28132E+04	1.56384E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 97	4.33217E+03	1.45855E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 98	3.06025E+03	4.44849E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 100	3.09994E+00	3.06842E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 93	2.84077E+11	2.61410E-18	2.61350E-18	2.61310E-18	2.61209E-18	2.61008E-18	2.60807E-18	2.60606E-18	2.60205E-18	
MO 42 99	2.41515E+05	4.69656E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 101	8.76292E+02	2.46731E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 104	2.61565E+02	3.46838E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 106	7.84813E+03	1.84600E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD 46 107	2.05134E+14	8.97170E-25	8.97170E-25	8.97170E-25	8.97169E-25	8.97168E-25	8.97168E-25	8.97167E-25	8.97164E-25	
PD 46 109	4.83704E+04	1.86307E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 106	7.34422E+05	7.78996E-18	1.22006E-56	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 108	4.10389E+09	7.96604E-14	7.83967E-14	7.75654E-14	7.55256E-14	7.16054E-14	6.78887E-14	6.43650E-14	5.78566E-14	
AG 47 110	2.15826E+07	9.68501E-12	4.63045E-13	6.09965E-14	3.84160E-16	1.52378E-20	6.04409E-25	2.39739E-29	3.77191E-38	
CD 48 109	3.99508E+07	1.63987E-18	3.17284E-19	1.06139E-19	6.86977E-21	2.87788E-23	1.20562E-25	5.05054E-28	8.86344E-33	
CD 48 111	2.92221E+03	3.81665E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 115	1.92561E+05	1.17561E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 117	1.22399E+04	3.53962E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 119	5.97541E+02	1.98567E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 111	2.42444E+05	5.48756E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 112	1.25400E+03	3.10262E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 114	4.27869E+06	5.40793E-19	1.18103E-25	4.28302E-30	3.39215E-41	2.12764E-63	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 115	1.61497E+04	6.19508E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 116	1.40998E+01	2.77876E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 117	6.95931E+03	3.97633E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 118	2.63955E+02	1.43486E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 119	1.26027E+02	1.48255E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 120	4.40093E+01	3.16981E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 122	1.00998E+01	4.33808E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 113	9.94473E+06	2.92321E-15	3.98185E-18	4.89292E-20	8.19000E-25	2.29453E-34	6.42851E-44	1.80103E-53	1.41369E-72	
SN 50 121	9.72156E+04	3.67693E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 123	1.07967E+07	5.21665E-14	1.19606E-16	2.07967E-18	8.29102E-23	1.31768E-31	2.09418E-40	3.32825E-49	8.40676E-67	
SN 50 125	8.12599E+05	6.69659E-13	5.67566E-48	2.35933E-71	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
I 53 130	4.44981E+04	1.36887E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	6.51269E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	6.17516E-16	6.41185E-67	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	3.17396E-11	1.15256E-11	5.86636E-12	1.08427E-12	3.70399E-14	1.26533E-15	4.32252E-17	5.04442E-20	
EU 63 152	4.17559E+08	3.54918E-10	3.03302E-10	2.73133E-10	2.10194E-10	1.24484E-10	7.37234E-11	4.36614E-11	1.53138E-11	
EU 63 154	2.69612E+08	3.37878E-11	2.64932E-11	2.25276E-11	1.50201E-11	6.67702E-12	2.96821E-12	1.31949E-12	2.60752E-13	
LU 71 174	1.22687E+07	3.02399E-22	1.43766E-24	4.06482E-26	5.46395E-30	9.87263E-38	1.78383E-45	3.22309E-53	1.05225E-68	
LU 71 177	1.38242E+07	1.26038E-19	1.09383E-21	4.61939E-23	1.69306E-26	2.27425E-33	3.05496E-40	4.10366E-47	7.40473E-61	
HF 72 173	8.49653E+04	2.87732E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 175	6.04840E+06	1.70005E-12	3.30051E-17	2.38413E-20	3.34353E-28	6.57559E-44	1.29320E-59	2.54328E-75	0.00000E+00	
HF 72 178	9.78261E+08	1.39136E-20	1.30108E-20	1.24418E-20	1.11258E-20	8.89653E-21	7.11396E-21	5.68857E-21	3.63735E-21	
HF 72 179	1.89384E+10	6.72834E-22	6.70507E-22	6.68960E-22	6.65108E-22	6.57470E-22	6.49920E-22	6.42456E-22	6.27785E-22	
HF 72 180	1.98723E+04	1.12657E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 181	3.66357E+06	1.10646E-11	1.83998E-19	1.19376E-24	1.29880E-37	1.52448E-63	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 182	2.84077E+14	6.98070E-27	6.98070E-27	6.98069E-27	6.98069E-27	6.98069E-27	6.98068E-27	6.98068E-27	6.98067E-27	
TA 73 180	2.93458E+04	1.34331E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA 73 182	9.89362E+06	1.63054E-11	2.14661E-14	2.57849E-16	4.07766E-21	1.01971E-30	2.55003E-40	6.37693E-50	3.98797E-69	
W 74 181	1.20968E+07	9.99315E-16	4.40315E-18	1.18341E-19	1.40145E-23	1.96538E-31	2.75622E-39	3.86523E-47	7.60183E-63	
W 74 185	6.47801E+06	8.10503E-13	3.23114E-17	3.77071E-20	1.75431E-27	3.79697E-42	8.21817E-57	1.77871E-71	0.00000E+00	
W 74 187	8.59984E+04	1.61564E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 203	4.02525E+06	3.86135E-18	3.21063E-25	6.11629E-30	9.68836E-42	2.43072E-65	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 205	3.11947E+02	2.97232E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 204	1.19282E+08	4.66331E-20	2.69011E-20	1.86418E-20	7.45213E-21	1.19087E-21	1.90306E-22	3.04114E-23	7.76620E-25	
TL 81 206	2.52054E+02	6.92667E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 207	2.86188E+02	5.67760E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 203	1.86782E+05	1.49743E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 205	4.76390E+14	8.64507E-21	8.64507E-21	8.64507E-21	8.64507E-21	8.64506E-21	8.64506E-21	8.64506E-21	8.64505E-21	
PB 82 207	7.95989E-01	1.49012E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)		1.55194E-07	8.05913E-09	4.94625E-09	1.61311E-09	3.36638E-10	1.49557E-10	8.43669E-11	3.20851E-11	
TOTAL (CURIES)		8.10112E+00	4.20686E-01	2.58194E-01	8.42042E-02	1.75725E-02	7.80688E-03	4.40395E-03	1.67484E-03	

FORM (6)292 12-3546

COMPONENT : CONCRETE - RADIAL FOURTH 6 INCHES - R4
VOLUME : 5.37000E+07 CC
: ABOVE VOLUME IS FOR THE FOURTH 6 INCHES OF CONCRETE IN THE
: RADIAL DIRECTION
:
: (INTERVALS 70-72 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	5.16942E-11	2.67536E-11	2.38956E-11	1.80159E-11	1.02407E-11	5.82111E-12	3.30888E-12	1.06913E-12
HE	2	6	8.09751E-01	1.01907E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	6.78999E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	2.66960E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	1.13202E-21	1.13202E-21	1.13202E-21	1.13202E-21	1.13202E-21	1.13202E-21	1.13201E-21	1.13201E-21
B	5	12	1.99754E-02	9.36827E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	1.59332E-14	1.59275E-14	1.59236E-14	1.59140E-14	1.58948E-14	1.58756E-14	1.58564E-14	1.58181E-14
F	9	20	1.10023E+01	1.43218E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	1.83392E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	1.28639E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	9.05329E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	1.48369E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	3.13586E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.13873E-12	9.78179E-36	4.10282E-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	1.65760E-12	2.94926E-16	9.32974E-19	5.25131E-25	1.66357E-37	5.27004E-50	1.66953E-62	0.00000E+00
S	16	37	3.04017E+02	8.59005E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	1.51352E-15	1.51351E-15	1.51350E-15	1.51348E-15	1.51345E-15	1.51342E-15	1.51338E-15	1.51331E-15
AR	18	37	3.02684E+06	3.51550E-11	1.35037E-20	7.13556E-27	1.44840E-42	5.96710E-74	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	3.07568E-13	3.05198E-13	3.03628E-13	2.99739E-13	2.92110E-13	2.84675E-13	2.77429E-13	2.63486E-13
AR	18	41	6.60140E+03	4.29327E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	2.08034E-18	2.08034E-18	2.08034E-18	2.08034E-18	2.08034E-18	2.08034E-18	2.08034E-18	2.08034E-18
K	19	42	4.47192E+04	4.43776E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	4.45134E-13	4.45122E-13	4.45114E-13	4.45095E-13	4.45056E-13	4.45018E-13	4.44979E-13	4.44902E-13
CA	20	45	1.42623E+07	1.37243E-10	1.37803E-12	6.41366E-14	2.99726E-17	6.54562E-24	1.42949E-30	3.12184E-37	1.48891E-50
CA	20	47	3.91608E+05	7.00809E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	1.80281E-11	2.11481E-15	5.96781E-18	1.42463E-24	1.12575E-37	8.89564E-51	7.02939E-64	0.00000E+00
SC	21	47	2.96217E+05	6.30556E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	1.99238E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	7.36447E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	3.64590E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.99350E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	6.35410E-18	6.36706E-19	1.37360E-19	2.96941E-21	1.38766E-24	6.48488E-28	3.03049E-31	6.61825E-38
V	23	52	2.02084E+02	5.27177E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	4.68296E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	6.51209E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.59843E+06	7.99806E-12	1.04834E-23	1.25557E-31	1.97115E-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	4.01928E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	5.78073E-21	5.78073E-21	5.78073E-21	5.78073E-21	5.78072E-21	5.78070E-21	5.78069E-21	5.78067E-21
MN	25	54	2.61565E+07	4.77301E-12	3.88349E-13	7.29191E-14	1.11402E-15	2.60013E-19	6.06859E-23	1.41640E-26	7.71583E-34
MN	25	56	9.29152E+03	1.20360E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	7.50040E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.08746E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.74530E-09	7.84227E-10	4.60069E-10	1.21276E-10	8.42708E-12	5.85571E-13	4.06895E-14	1.96466E-16
FE	26	59	3.89409E+06	1.84479E-11	8.85784E-19	1.17015E-23	7.42245E-36	2.98626E-60	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	1.35161E-26	1.35159E-26	1.35155E-26	1.35145E-26	1.35136E-26	1.35127E-26	1.35108E-26	1.35108E-26
FE	26	61	3.60001E+02	1.33279E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	4.32401E-17	2.64430E-18	4.10450E-19	3.89616E-21	3.51061E-25	3.16321E-29	2.85022E-33	2.31403E-41
CO	27	58	6.13405E+06	1.34383E-14	3.03564E-19	2.47582E-22	4.37899E-30	1.42689E-45	4.64953E-61	1.51505E-76	0.00000E+00
CO	27	60	1.65983E+08	4.18437E-11	2.81793E-11	2.16503E-11	1.12221E-11	2.99892E-12	8.02844E-13	2.14930E-13	1.54039E-14
CO	27	61	5.94007E+03	1.24500E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	6.25452E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	3.64675E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	1.19409E-16	1.19406E-16	1.19404E-16	1.19399E-16	1.19389E-16	1.19378E-16	1.19368E-16	1.19347E-16
NI	28	63	2.90020E+09	1.76726E-14	1.72772E-14	1.70185E-14	1.63887E-14	1.51931E-14	1.40939E-14	1.30700E-14	1.12400E-14
NI	28	65	9.21738E+03	4.35739E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	2.41971E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.60972E+06	7.48742E-18	1.47857E-35	2.32727E-47	7.23415E-77	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	4.17857E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.50096E+06	2.43590E-16	1.13452E-22	6.81690E-27	1.90775E-37	1.49407E-58	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	7.73241E-21	7.18063E-21	6.83482E-21	6.04143E-21	4.72024E-21	3.68798E-21	2.88147E-21	1.75899E-21
SR	38	91	3.48315E+04	5.58211E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	2.66981E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.50095E+02	1.36375E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	5.18462E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	2.35010E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	6.37641E-17	1.63237E-22	3.05481E-26	1.46350E-35	3.35890E-54	7.70905E-73	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	1.98103E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	4.32785E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	4.02245E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	9.72270E-20	1.07858E-23	2.49017E-26	6.37794E-33	4.18370E-46	2.74436E-59	1.80020E-72	0.00000E+00
ZR	40	89	2.82249E+05	1.08110E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	6.38884E-19	6.38883E-19	6.38883E-19	6.38881E-19	6.38878E-19	6.38875E-19	6.38872E-19	6.38867E-19
ZR	40	95	5.63534E+06	9.12535E-16	7.99829E-21	3.40016E-24	1.26692E-32	1.75889E-49	2.44189E-66	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	2.58538E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	5.09975E-21	5.08462E-21	5.07456E-21	5.04949E-21	4.99974E-21	4.95047E-21	4.90169E-21	4.80556E-21
NB	41	92	8.80746E+05	1.62525E-16	7.12416E-49	1.90812E-70	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	8.53935E-17	8.53846E-17	8.53787E-17	8.53638E-17	8.53342E-17	8.53046E-17	8.52750E-17	8.52158E-17
NB	41	95	3.02684E+06	1.91264E-17	7.34682E-27	3.88217E-33	7.88016E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	3.75731E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	3.48200E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	1.07859E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	7.49403E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	4.31234E-19	4.31135E-19	4.31068E-19	4.30903E-19	4.30571E-19	4.30239E-19	4.29908E-19	4.29247E-19
MO	42	99	2.41515E+05	5.80940E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	2.96504E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	8.38727E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84813E+03	4.39381E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.05134E+14	2.14081E-25	2.14081E-25	2.14081E-25	2.14081E-25	2.14081E-25	2.14080E-25	2.14080E-25	2.14080E-25
PD	46	109	4.83704E+04	4.44023E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34422E+05	1.90332E-18	2.98096E-57	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10389E+09	8.77383E-15	8.63465E-15	8.54309E-15	8.31842E-15	7.88665E-15	7.47730E-15	7.08918E-15	6.37235E-15
AG	47	110	2.15826E+07	1.08968E-12	5.20982E-14	6.86284E-15	4.32226E-17	1.71444E-21	6.80033E-26	2.69735E-30	4.24385E-39
CD	48	109	3.99508E+07	3.90543E-19	7.55629E-20	2.52776E-20	1.63607E-21	6.85384E-24	2.87124E-26	1.20281E-28	2.11088E-33
CD	48	111	2.92221E+03	9.15884E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	2.85798E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22399E+04	8.64823E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	4.85159E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42444E+05	1.33448E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.25400E+03	7.38953E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	1.29523E-19	2.82863E-26	1.02581E-30	8.12440E-42	5.09583E-64	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	1.47606E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.40998E+01	6.70537E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.95931E+03	9.49863E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63955E+02	3.48381E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	3.55747E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.40093E+01	7.74188E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.00998E+01	1.05992E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	113	9.94473E+06	4.73331E-16	6.44747E-19	7.92269E-21	1.32614E-25	3.71534E-35	1.04091E-44	2.91625E-54	2.28907E-73
SN	50	121	9.72156E+04	4.14673E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	5.91052E-15	1.35515E-17	2.35629E-19	9.39381E-24	1.49295E-32	2.37273E-41	3.77000E-50	9.52495E-68
SN	50	125	8.12599E+05	7.49193E-14	6.34975E-49	2.63955E-72	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

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I 53 130	4.44981E+04	3.26511E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	1.53761E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	1.50878E-16	1.56661E-67	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	3.56079E-12	1.29302E-12	6.58133E-13	1.21641E-13	4.15643E-15	1.41954E-16	4.84934E-18	5.65921E-21	
EU 63 152	4.17559E+08	3.86724E-11	3.30483E-11	2.97610E-11	2.29031E-11	1.35639E-11	8.03301E-12	4.75741E-12	1.66063E-12	
EU 63 154	2.69812E+08	3.70563E-12	2.90560E-12	2.47869E-12	1.64750E-12	7.32294E-13	3.25534E-13	1.44713E-13	2.85976E-14	
LU 71 174	1.22687E+07	6.97799E-23	3.31747E-25	9.37975E-27	1.26083E-30	2.27815E-38	4.11625E-46	7.43741E-54	2.42810E-69	
LU 71 177	1.38242E+07	3.60063E-20	2.60413E-22	1.09975E-23	4.03072E-27	5.41440E-34	7.27305E-41	9.76972E-48	1.76287E-61	
HF 72 173	8.49653E+04	7.03014E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 175	6.04840E+06	1.86231E-13	3.61552E-18	2.61168E-21	3.66264E-29	7.20318E-45	1.41662E-60	2.78602E-76	0.00000E+00	
HF 72 178	9.78261E+08	3.33646E-21	3.11999E-21	2.98353E-21	2.66794E-21	2.13338E-21	1.70592E-21	1.36411E-21	8.72233E-22	
HF 72 179	1.89384E+10	1.00702E-22	1.60146F-22	1.59776E-22	1.58856E-22	1.57032E-22	1.55229E-22	1.53446E-22	1.49942E-22	
HF 72 180	1.98723E+04	2.70654E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 181	3.66357E+06	1.22812E-12	2.04228E-20	1.33056E-25	1.44160E-38	1.69209E-64	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 182	2.84077E+14	1.68268E-27	1.68268E-27	1.68267E-27	1.68267E-27	1.68267E-27	1.68267E-27	1.68267E-27	1.68267E-27	1.68267E-27
TA 73 180	2.93458E+04	3.27808E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
W 74 181	1.20968E+07	2.64156E-16	1.07579E-18	2.89135E-20	3.62406E-24	4.80187E-32	6.73408E-40	9.44365E-48	1.85730E-63	
W 74 185	6.47801E+06	9.18302E-14	3.66089E-18	4.27223E-21	1.98764E-28	4.30198E-43	9.31123E-58	2.01529E-72	0.00000E+00	
W 74 187	8.59984E+04	1.81335E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 203	4.02525E+06	9.32547E-19	7.75396E-26	1.47713E-30	2.33982E-42	5.87040E-66	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 204	1.19282E+08	1.11991E-20	6.46041E-21	4.47698E-21	1.78966E-21	2.85993E-22	4.57026E-23	7.30342E-24	1.86508E-25	
TL 81 206	2.52054E+02	1.67588E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00009E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 207	2.86188E+02	1.36787E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 203	1.86782E+05	3.65860E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00060E+00	0.00000E+00	0.00000E+00
PB 82 205	4.76390E+14	2.11152E-21	2.11152E-21	2.11152E-21	2.11152E-21	2.11152E-21	2.11152E-21	2.11152E-21	2.11152E-21	2.11152E-21
PB 82 207	7.95989E-01	3.63617E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)		1.70451E-08	8.79023E-10	5.39439E-10	1.75954E-10	7.67449E-11	1.63371E-11	9.22676E-12	3.52547E-12	
TOTAL (CURIES)		9.15320E-01	4.72035E-02	2.89679E-02	9.44874E-03	1.97320E-03	8.77300E-04	4.95477E-04	1.89318E-04	

COMPONENT : CONCRETE - RADIAL FIFTH 6 INCHES - R4
VOLUME : 5.53000E+07 CC
: ABOVE VOLUME IS FOR THE FIFTH 6 INCHES OF CONCRETE IN THE
: RADIAL DIRECTION
:
: (INTERVALS 73-75 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	4.45871E-12	3.76368E-12	3.36161E-12	2.53446E-12	1.44066E-12	8.18909E-13	4.65491E-13	1.50405E-13
HE	2	6	8.09751E-01	2.32212E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	9.55712E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	6.06896E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	2.30611E-22	2.30611E-22	2.30611E-22	2.30611E-22	2.30610E-22	2.30609E-22	2.30609E-22	2.30607E-22
B	5	12	1.99754E-02	1.31849E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	2.24582E-15	2.24466E-15	2.24311E-15	2.24048E-15	2.23769E-15	2.23499E-15	2.22959E-15	
F	9	20	1.10022E+01	3.47013E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	4.34640E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	1.81578E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	2.13001E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	2.18321E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	7.17042E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	2.61218E-13	2.24388E-36	9.41163E-52	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	2.33928E-13	4.16213E-17	1.31665E-19	7.41087E-26	2.36770E-38	7.43731E-51	2.35611E-63	0.00000E+00
S	16	37	3.04012E+02	2.04115E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	2.15263E-16	2.15262E-16	2.15261E-16	2.15259E-16	2.15254E-16	2.15249E-16	2.15244E-16	2.15235E-16
AR	18	37	3.02684E+06	8.22348E-12	3.15879E-21	1.66915E-27	3.38810E-43	1.39583E-74	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	4.88588E-14	4.84824E-14	4.82330E-14	4.76152E-14	4.64033E-14	4.52222E-14	4.40711E-14	4.18562E-14
AR	18	41	6.60140E+03	1.01001E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	2.92868E-19	2.92868E-19	2.92868E-19	2.92868E-19	2.92868E-19	2.92868E-19	2.92868E-19	2.92868E-19
K	19	42	4.47192E+04	6.26562E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	6.25156E-14	6.25140E-14	6.25129E-14	6.25102E-14	6.25048E-14	6.24994E-14	6.24940E-14	6.24831E-14
CA	20	45	1.42623E+07	1.93937E-11	1.94728E-13	9.06306E-15	4.23539E-18	9.24953E-25	2.01999E-31	4.41143E-38	2.10397E-51
CA	20	47	3.91608E+05	9.84282E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	2.55132E-12	2.99286E-16	7.17192E-19	2.01613E-25	1.59316E-38	1.25890E-51	9.94794E-65	0.00000E+00
SC	21	47	2.96217E+05	1.44693E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	4.79983E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	1.72422E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	8.90964E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	2.81183E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.55344E-18	1.55661E-19	3.35816E-20	7.25957E-22	3.39253E-25	1.58541E-28	7.40890E-32	1.61802E-38
V	23	52	2.02084E+02	7.42894E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	1.11608E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	1.59170E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	1.15364E-12	1.51212E-24	1.81103E-32	2.84318E-52	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	9.44370E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	1.41326E-21	1.41326E-21	1.41326E-21	1.41326E-21	1.41326E-21	1.41326E-21	1.41325E-21	1.41325E-21
MN	25	54	2.61565E+07	1.10035E-12	8.95282E-16	1.68105E-14	2.56821E-16	5.99424E-20	1.39903E-23	3.26530E-27	1.77877E-34
MN	25	56	9.29152E+03	1.70214E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.91933E+02	1.77727E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	2.65228E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	2.45218E-10	1.10185E-10	6.46404E-11	1.70395E-11	1.18402E-12	8.22737E-14	5.71693E-15	2.76038E-17
FE	26	59	3.89409E+06	2.61129E-12	1.25382E-19	1.65634E-24	1.05064E-36	4.22702E-61	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	3.30328E-27	3.30321E-27	3.30316E-27	3.30305E-27	3.30282E-27	3.30259E-27	3.30236E-27	3.30191E-27
FE	26	61	3.60001E+02	3.25831E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	1.05693E-17	6.46354E-19	1.00327E-19	9.52348E-22	8.58109E-26	7.73191E-30	6.96688E-34	5.65624E-42
CO	27	58	6.13405E+06	3.08942E-15	6.97883E-20	5.57689E-23	1.00672E-30	3.28038E-46	1.06891E-61	3.48305E-77	0.00000E+00
CO	27	60	1.65983E+08	5.94377E-12	4.00278E-12	3.07536E-12	1.59122E-12	4.25987E-13	1.14041E-13	3.05302E-14	2.18808E-15
CO	27	61	5.94007E+03	2.92629E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	1.50702E-16	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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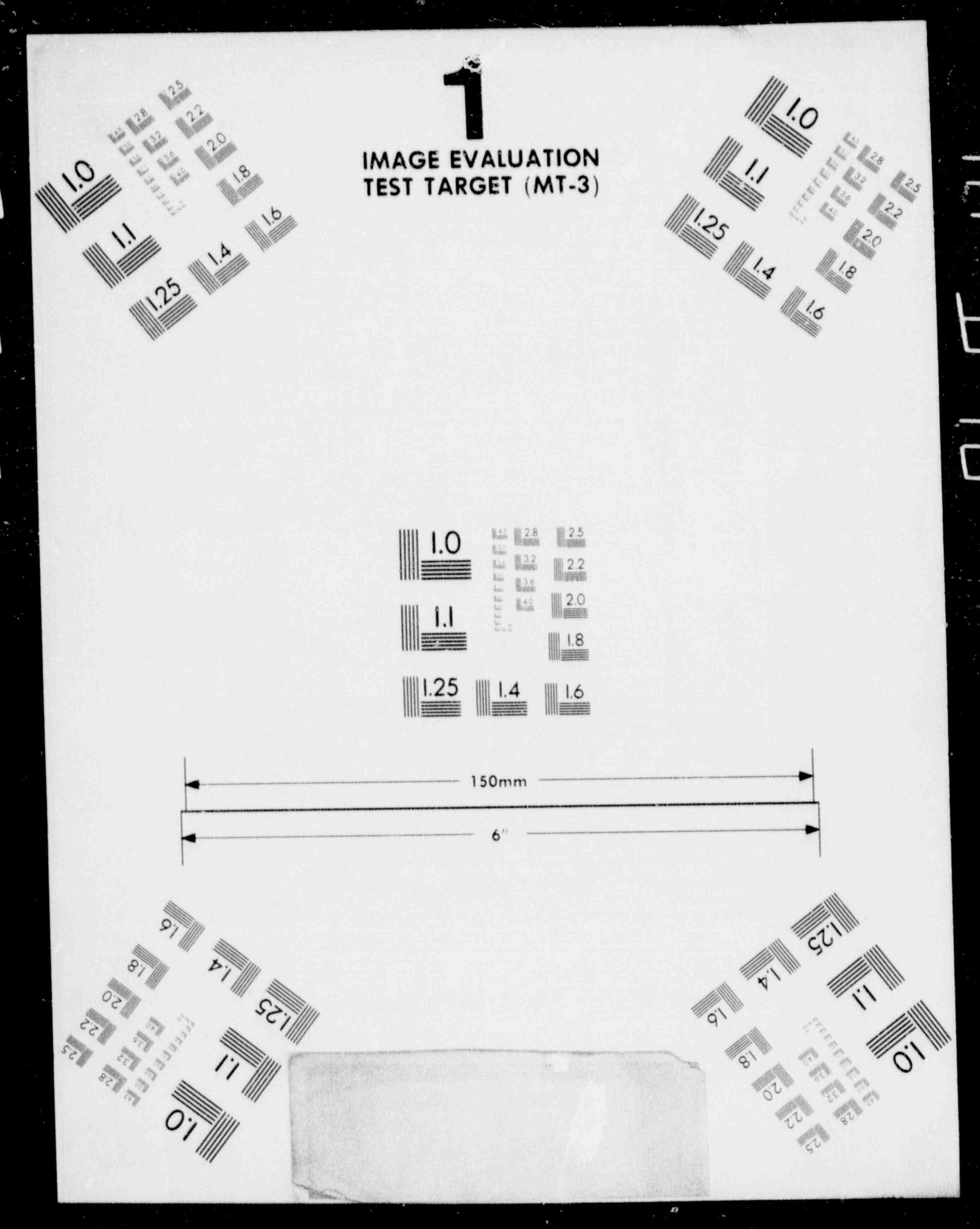
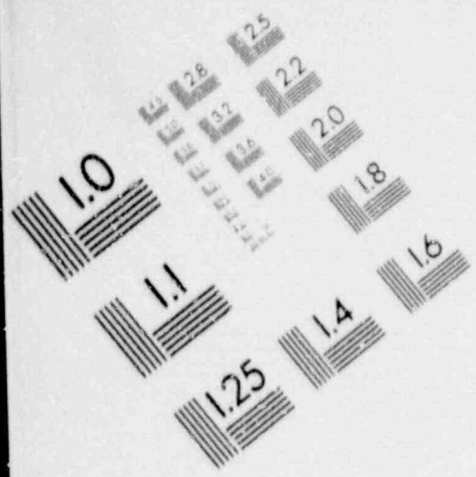
CO 27 64	2.99999E-81	8.91522E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI 28 59	2.52053E+12	1.68111E-17	1.68106E-17	1.68103E-17	1.68096E-17	1.68082E-17	1.68067E-17	1.68053E-17	1.68023E-17	
NI 28 63	2.90020E+09	2.55067E-15	2.49360E-15	2.45627E-15	2.36536E-15	2.19352E-15	2.03417E-15	1.88639E-15	1.62226E-15	
NI 28 65	9.21738E+03	1.02488E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CU 29 64	4.62098E+04	3.41491E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
RB 37 86	1.60972E+06	1.82301E-18	3.59997E-36	5.66636E-48	1.76135E-77	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 87	1.00799E+04	1.81184E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 89	4.50096E+06	5.79174E-17	2.69752E-23	1.62083E-27	4.53598E-38	3.55239E-59	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 90	8.86377E+08	1.86344E-21	1.73047E-21	1.64713E-21	1.45593E-21	1.13754E-21	8.88771E-22	6.94408E-22	4.23901E-22	
SR 38 91	3.48315E+04	1.35148E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 92	9.75604E+03	6.51559E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 93	4.50095E+02	3.33184E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 89	1.56998E+01	1.26559E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 90	2.30281E+05	3.30853E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 91	5.09667E+06	1.52558E-17	3.90550E-23	7.30875E-27	3.50148E-36	8.03629E-55	1.84442E-73	0.00000E+00	0.00000E+00	
Y 39 92	1.27440E+04	4.78100E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 94	1.12200E+03	1.05234E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 96	9.80406E+00	9.83370E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
ZR 40 88	7.20602E+06	2.30953E-20	2.56183E-24	5.91462E-27	1.51488E-33	9.93708E-47	6.51837E-60	4.27582E-73	0.00000E+00	
ZR 40 89	2.82249E+05	2.59948E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
ZR 40 93	4.74758E+13	9.10575E-20	9.10573E-20	9.10573E-20	9.10571E-20	9.10567E-20	9.10562E-20	9.10558E-20	9.10550E-20	
ZR 40 95	5.63634E+06	2.23047E-16	1.95498E-21	8.31086E-25	3.09668E-33	4.29916E-50	5.96859E-67	0.00000E+00	0.00000E+00	
ZR 40 97	6.04840E+04	4.78507E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 91	2.20888E+10	1.24284E-21	1.23915E-21	1.23670E-21	1.23059E-21	1.21847E-21	1.20646E-21	1.19457E-21	1.17114E-21	
NB 41 92	8.80746E+05	3.93253E-17	1.72379E-49	4.61697E-71	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 94	6.30134E+11	1.25966E-17	1.25953E-17	1.25944E-17	1.25922E-17	1.25879E-17	1.25835E-17	1.25791E-17	1.25704E-17	
NB 41 95	3.02684E+06	4.56727E-18	1.75438E-27	9.27038E-34	1.88173E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 96	8.28132E+04	9.05800E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 97	4.33217E+03	8.35136E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 98	3.06025E+03	2.61974E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 100	3.09996E+00	1.83149E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
MO 42 93	2.84077E+11	8.86902E-20	8.86697E-20	8.86560E-20	8.86219E-20	8.85537E-20	8.84855E-20	8.84174E-20	8.82814E-20	
MO 42 99	2.41515E+05	9.55825E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
MO 42 101	8.76292E+02	4.73605E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
RH 45 104	2.61565E+02	2.03270E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
RH 45 106	7.84813E+03	1.05071E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PD 46 107	2.05134E+14	5.13318E-26	5.13318E-26	5.13318E-26	5.13317E-26	5.13317E-26	5.13316E-26	5.13316E-26	5.13315E-26	
PD 46 109	4.83704E+04	1.06363E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
AG 47 106	7.54422E+05	4.65320E-19	7.28779E-58	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
AG 47 108	4.10389E+09	1.25643E-15	1.23650E-15	1.22339E-15	1.19121E-15	1.12938E-15	1.07076E-15	1.01518E-15	9.12532E-16	
AG 47 110	2.15826E+07	1.62893E-13	7.78800E-15	1.02591E-15	6.46123E-18	2.56287E-22	1.01656E-26	4.03220E-31	6.34402E-40	
CD 48 109	3.99508E+07	9.34891E-20	1.80884E-20	6.05100E-21	3.91647E-22	1.64069E-24	6.87323E-27	2.87932E-29	5.05307E-34	
CD 48 111	2.92221E+03	2.20587E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CD 48 115	1.92541E+05	6.95745E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CD 48 117	1.22399E+04	2.11427E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CD 48 119	5.97541E+02	1.18611E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 111	2.42444E+05	3.24948E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 112	1.25400E+03	1.76902E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 114	4.27869E+06	3.11479E-20	6.80233E-27	2.46688E-31	1.95377E-42	1.22545E-64	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 115	1.61497E+04	3.53484E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 116	1.40998E+01	1.62215E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 117	6.95931E+03	2.27942E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 118	2.63955E+02	8.47165E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 119	1.26027E+02	8.56759E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 120	4.40093E+01	1.89212E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 122	1.00998E+01	2.59128E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SN 50 113	9.94473E+06	9.66228E-17	1.31615E-19	1.61729E-21	2.70709E-26	7.58426E-36	2.12486E-45	5.95305E-55	4.67275E-74	
SN 50 121	9.72156E+04	6.10655E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SN 50 123	1.07967E+07	8.76800E-16	2.91031E-18	3.49546E-20	1.39353E-24	2.21472E-33	3.51984E-42	5.59403E-51	1.41298E-68	
SN 50 125	8.12599E+05	1.09847E-14	9.31001E-50	3.87011E-73	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
I 53 130	4.44981E+04	7.81870E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
XE 54 133	4.56018E+05	3.65535E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CS 55 132	5.58990E+05	3.68863E-17	3.83002E-68	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CS 55 134	6.47801E+07	5.28337E-13	1.91854E-13	9.76513E-14	1.80487E-14	6.16566E-16	2.10627E-17	7.19527E-19	8.39693E-22	
EU 63 152	4.17559E+08	5.43355E-12	4.64335E-12	4.18148E-12	3.21793E-12	1.90576E-12	1.12865E-12	6.68425E-13	2.34443E-13	
EU 63 154	2.69812E+08	5.28040E-13	4.14038E-13	3.52065E-13	2.34735E-13	1.04349E-13	4.63875E-14	2.06211E-14	4.07506E-15	
LU 71 174	1.22687E+07	1.62777E-23	7.73872E-26	2.18803E-27	2.94116E-31	5.31429E-39	9.60207E-47	1.73496E-54	5.66409E-70	
LU 71 177	1.38242E+07	7.18202E-21	6.23299E-23	2.63227E-24	9.64757E-28	1.29594E-34	1.74081E-41	2.33839E-48	4.21944E-62	
HF 72 173	8.49653E+04	1.71872E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 175	6.04840E+06	2.65745E-14	5.15923E-19	3.72677E-22	5.22646E-30	1.02787E-45	2.02147E-61	3.97555E-77	0.00000E+00	
HF 72 178	9.78261E+08	8.03193E-22	7.51081E-22	7.18233E-22	6.42260E-22	5.13573E-22	4.10670E-22	3.28386E-22	2.09975E-22	
HF 72 179	1.89384E+10	3.85624E-23	3.84290E-23	3.83403E-23	3.81195E-23	3.76818E-23	3.72491E-23	3.68213E-23	3.59805E-23	
HF 72 180	1.98723E+04	6.52476E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 181	3.66357E+06	1.82068E-13	3.02768E-21	1.97256E-26	2.13717E-39	2.50852E-65	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 182	2.84077E+14	4.06737E-28	4.06737E-28	4.06737E-28	4.06737E-28	4.06736E-28	4.06736E-28	4.06736E-28	4.06735E-28	
TA 73 180	2.93458E+04	8.01035E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TA 73 182	9.89362E+06	2.86681E-13	3.77416E-16	4.53350E-18	7.16934E-23	1.79286E-32	4.48346E-42	1.12119E-51	7.01165E-71	
W 74 181	1.20968E+07	5.96894E-17	2.63001E-19	7.06857E-21	8.37089E-25	1.17392E-32	1.64630E-40	2.30871E-48	4.54060E-64	
W 74 185	6.47801E+06	1.36859E-14	5.45600E-19	6.36710E-22	2.96227E-29	6.41144E-44	1.38760E-58	3.00348E-73	0.00000E+00	
W 74 187	8.59984E+04	2.69656E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 203	4.02525E+06	2.25749E-19	1.87706E-26	3.57581E-31	5.66418E-43	1.42109E-66	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 205	3.11947E+02	1.76110E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 204	1.19282E+08	2.69931E-21	1.55714E-21	1.07906E-21	4.31359E-22	6.89325E-23	1.10156E-23	1.76033E-24	4.49538E-26	
TL 81 206	2.52054E+02	4.06323E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 207	2.86188E+02	3.30475E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 203	1.86782E+05	8.94438E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 205	4.76390E+14	5.16070E-22	5.16070E-22	5.16070E-22	5.16070E-22	5.16070E-22	5.16070E-22	5.16069E-22	5.16069E-22	
PB 82 207	7.95989E-01	8.87545E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TOTAL (CURIES/CC)		2.42239E-09	1.23611E-10	7.58523E-11	2.47522E-11	5.17610E-12	2.30359E-12	1.30273E-12	5.00487E-13	
TOTAL (CURIES)		1.33958E-01	6.83568E-03	4.19463E-03	1.36880E-03	2.86238E-04	1.27389E-04	7.20410E-05	2.76769E-05	

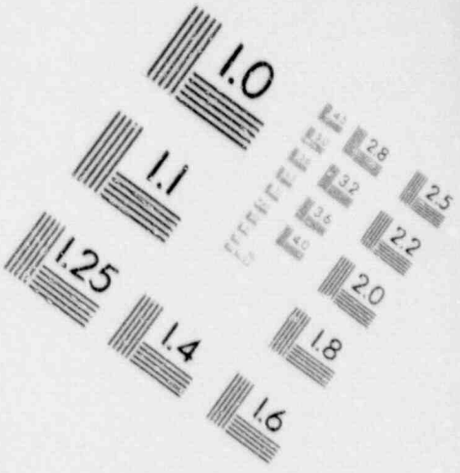
FORM (A)292-12-3546

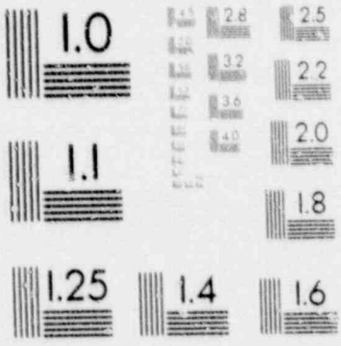

1
IMAGE EVALUATION
TEST TARGET (MT-3)
1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
150mm
6"

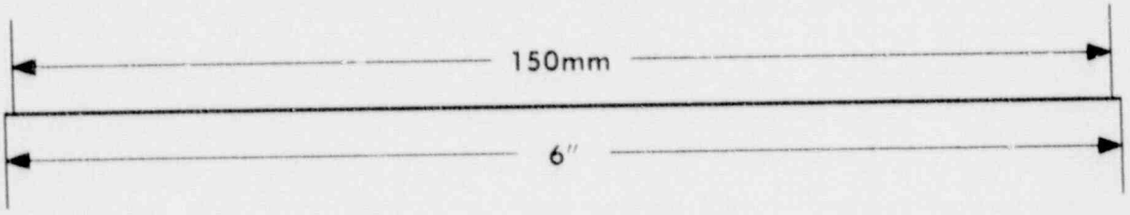
1

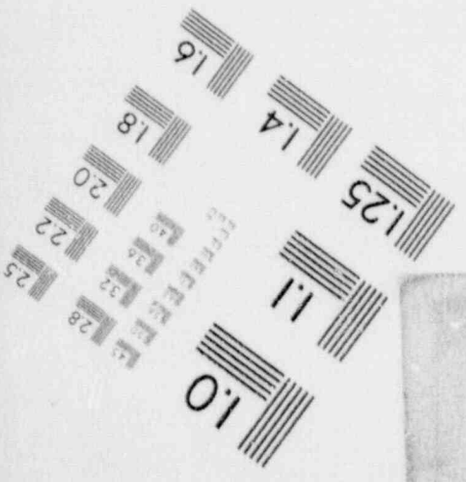
IMAGE EVALUATION TEST TARGET (MT-3)

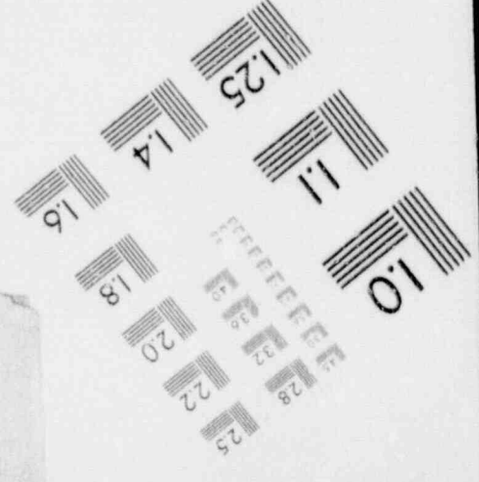






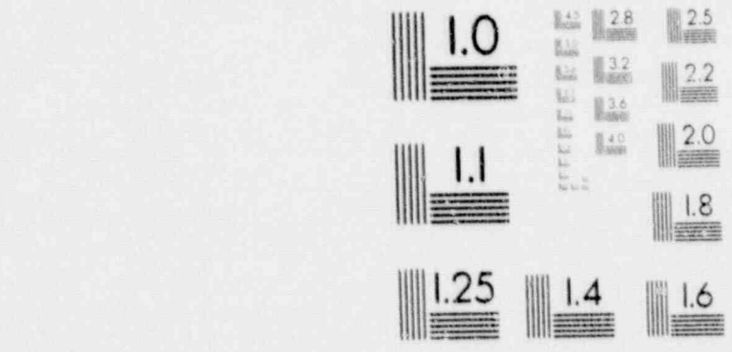


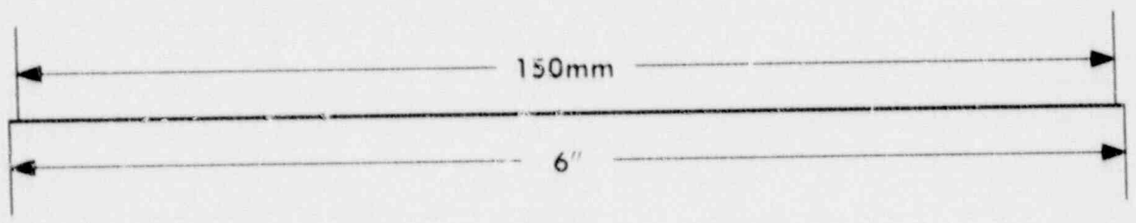


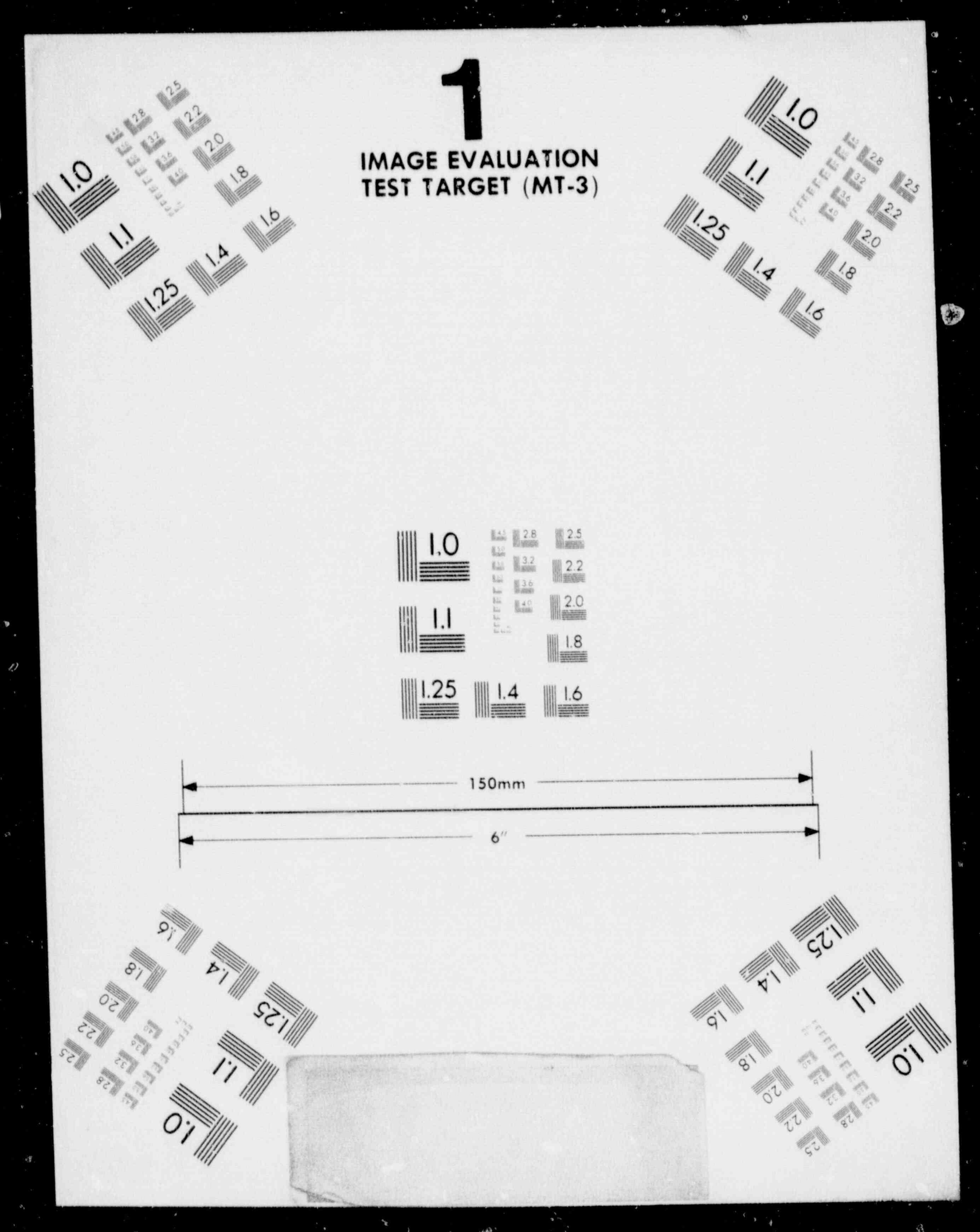


1

IMAGE EVALUATION TEST TARGET (MT-3)






1
IMAGE EVALUATION
TEST TARGET (MT-3)
1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
150mm
6"

COMPONENT : CONCRETE - RADIAL SIXTH 6 INCHES - R4
VOLUME : 5.68000E+07 CC
: ABOVE VOLUME IS FOR THE SIXTH 6 INCHES OF CONCRETE IN THE
: RADIAL DIRECTION
:
: (INTERVALS 76-78 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	7.86898E-13	6.64234E-13	5.93275E-13	4.47295E-13	2.54255E-13	1.44526E-13	8.21523E-14	2.65443E-14
HE	2	6	8.09751E-01	5.35428E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	1.68751E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	1.39535E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	5.08606E-23	5.08605E-23	5.08605E-23	5.08604E-23	5.08603E-23	5.08601E-23	5.08600E-23	5.08597E-23
B	5	12	1.99754E-02	2.32780E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	3.96940E-16	3.96796E-16	3.96700E-16	3.96460E-16	3.95981E-16	3.95503E-16	3.95025E-16	3.94071E-16
F	9	20	1.10023E+01	8.42731E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	1.03598E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	3.21407E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	5.04617E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	3.99938E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	1.65572E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	6.04965E-14	2.19670E-37	2.17968E-52	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	4.13815E-14	7.36274E-18	2.32914E-28	1.31097E-26	4.15305E-39	1.31565E-51	4.16793E-64	0.00000E+00
S	16	37	3.04012E+02	4.87564E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	3.83500E-17	3.83497E-17	3.83495E-17	3.83491E-17	3.83482E-17	3.83474E-17	3.83465E-17	3.83448E-17
AR	18	37	3.02684E+06	1.93819E-12	7.44494E-22	3.93402E-28	7.98540E-44	3.28981E-75	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	9.41509E-15	9.34255E-15	9.29450E-15	9.17545E-15	8.94190E-15	8.71431E-15	8.49250E-15	8.06568E-15
AR	18	41	6.60140E+03	2.39289E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	5.17174E-20	5.17174E-20	5.17174E-20	5.17174E-20	5.17174E-20	5.17174E-20	5.17174E-20	5.17174E-20
K	19	42	4.47192E+04	1.10906E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	1.10136E-14	1.10130E-14	1.10130E-14	1.10125E-14	1.10116E-14	1.10106E-14	1.10097E-14	1.10078E-14
CA	20	45	1.42623E+07	3.43420E-12	3.44822E-14	1.60487E-15	7.49995E-19	1.63789E-25	3.57697E-32	7.81169E-39	3.72567E-52
CA	20	47	3.91608E+05	1.73410E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	4.52755E-13	5.31112E-17	1.27272E-19	3.57781E-26	2.82721E-39	2.23404E-52	1.76535E-65	0.00000E+00
SC	21	47	2.96217E+05	3.35367E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58255E+05	1.16908E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	4.06865E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	2.17977E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	4.97369E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	3.80194E-19	3.80970E-20	8.21889E-21	1.77673E-22	8.30301E-26	3.88020E-29	1.81328E-32	3.96000E-39
V	23	52	2.02084E+02	1.31307E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.99922E+02	2.67290E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	3.89483E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	2.08048E-13	2.72698E-25	3.26604E-33	5.12742E-53	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	2.23471E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	3.45887E-22	3.45887E-22	3.45887E-22	3.45886E-22	3.45885E-22	3.45885E-22	3.45884E-22	3.45883E-22
MN	25	54	2.61565E+07	2.56017E-13	2.08304E-14	3.91126E-15	5.97542E-17	1.39467E-20	3.25509E-24	7.59734E-28	4.13865E-35
MN	25	56	9.29152E+03	3.01807E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	4.23641E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	6.47781E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	4.32151E-11	1.94181E-11	1.13917E-11	3.00289E-12	2.08661E-13	1.44992E-14	1.00750E-15	4.86466E-18
FE	26	59	3.89409E+06	4.63349E-13	2.22478E-20	2.93901E-25	1.86426E-37	7.50045E-62	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	8.08201E-28	8.08184E-28	8.08173E-28	8.08145E-28	8.08089E-28	8.08033E-28	8.07977E-28	8.07865E-28
FE	26	61	3.60001E+02	7.97432E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	2.58635E-18	1.58165E-19	2.45505E-20	2.33043E-22	2.09982E-26	1.89203E-30	1.70482E-34	1.38410E-42
CO	27	58	6.13405E+06	7.17096E-16	1.61988E-20	1.29447E-23	2.33673E-31	7.61422E-47	2.48109E-62	8.08463E-78	0.00000E+00
CO	27	60	1.65983E+08	1.05800E-12	7.12501E-13	5.47418E-13	2.83239E-13	7.58262E-14	2.02995E-14	5.43441E-15	3.89481E-16
CO	27	61	5.94007E+03	6.92787E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	3.64230E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	2.18189E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	2.96894E-18	2.96886E-18	2.96881E-18	2.96868E-18	2.96842E-18	2.96816E-18	2.96791E-18	2.96739E-18
NI	28	63	2.90020E+09	4.59209E-16	4.48935E-16	4.42214E-16	4.25848E-16	3.94911E-16	3.66221E-16	3.39616E-16	2.92063E-16
NI	28	65	9.21738E+03	2.42788E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	6.04317E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.60972E+06	4.44572E-19	8.77911E-37	1.38184E-48	4.29534E-78	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	2.45575E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.50096E+06	1.38475E-17	6.44948E-24	3.87523E-28	1.08451E-38	8.49339E-60	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	4.50482E-22	4.18335E-22	3.98189E-22	3.51967E-22	2.74996E-22	2.14858E-22	1.67871E-22	1.02477E-22
SR	38	91	3.48315E+04	3.27962E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	1.59219E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.50095E+02	8.14969E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	3.09351E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	5.84249E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	3.66651E-18	9.38631E-24	1.75655E-27	8.41530E-37	1.93141E-55	4.43280E-74	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	1.15711E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	2.56335E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	2.40667E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	5.51421E-21	6.11714E-25	1.41229E-27	3.61723E-34	2.37278E-47	1.55646E-60	1.02098E-73	0.00000E+00
ZR	40	89	2.82249E+05	6.27298E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	1.62496E-20	1.62496E-20	1.62496E-20	1.62495E-20	1.62495E-20	1.62494E-20	1.62493E-20	1.62492E-20
ZR	40	95	5.63534E+06	5.45789E-17	4.78379E-22	2.03364E-25	7.57749E-34	1.05199E-50	1.46050E-67	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	1.02452E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	3.03336E-22	3.02436E-22	3.01838E-22	3.00347E-22	2.97387E-22	2.94457E-22	2.91555E-22	2.85838E-22
NB	41	92	8.80746E+05	9.54235E-18	4.18282E-50	1.12052E-71	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	2.31225E-18	2.31201E-18	2.31185E-18	2.31145E-18	2.31065E-18	2.30985E-18	2.30904E-18	2.30744E-18
NB	41	95	3.02694E+06	1.09592E-18	4.20963E-28	2.22443E-34	4.51523E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	2.19046E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	2.01118E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	6.37505E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	4.48112E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	1.96138E-20	1.96093E-20	1.96062E-20	1.95987E-20	1.95836E-20	1.95685E-20	1.95535E-20	1.95234E-20
MO	42	99	2.41515E+05	1.89502E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	9.21966E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	4.93743E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84813E+03	2.52290E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.05134E+14	1.23602E-26	1.23602E-26	1.23602E-26	1.23602E-26	1.23602E-26	1.23602E-26	1.23602E-26	1.23602E-26
PD	46	109	4.83704E+04	2.55915E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34422E+05	1.13884E-19	1.78364E-58	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10389E+09	2.25236E-16	2.21664E-16	2.19313E-16	2.13546E-16	2.02461E-16	1.91953E-16	1.81989E-16	1.63587E-16
AG	47	110	2.15826E+07	3.03069E-14	1.44898E-15	1.90873E-16	1.20213E-18	4.76830E-23	1.89135E-27	7.50204E-32	1.18033E-40
CD	48	109	3.99508E+07	2.24793E-20	4.34934E-21	1.45495E-21	9.41709E-23	3.94501E-25	1.65266E-27	6.92329E-30	1.21500E-34
CD	48	111	2.92221E+03	5.33034E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	1.69649E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22399E+04	5.17447E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	2.90292E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42444E+05	7.92503E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.25400E+03	4.25389E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	7.51763E-21	1.64176E-27	5.95387E-32	4.71546E-43	2.95766E-65	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	8.50271E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.40998E+01	3.93397E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.95931E+03	5.49198E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63955E+02	2.06369E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	2.07020E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.40093E+01	4.62952E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.00998E+01	6.34201E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	113	9.94473E+06	2.13527E-17	2.98856E-20	3.57406E-22	5.98243E-27	1.67605E-36	4.69574E-46	1.31557E-55	1.03264E-74
SN	50	121	9.72156E+04	1.11808E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	1.61632E-16	3.70586E-19	6.44362E-21	2.56887E-25	4.08268E-34	6.48856E-43	1.03122E-51	2.60473E-69
SN	50	125	8.12599E+05	2.00833E-15	1.70215E-50	7.07573E-74	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

FORM (A)292 12 354E

I 53 130	4.44981E+04	1.87883E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	8.74073E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58090E+05	9.07770E-18	9.37373E-69	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	9.76634E-14	3.54644E-14	1.80509E-14	3.33631E-15	1.13973E-16	3.89344E-18	1.33005E-19	1.56218E-22	
EU 63 152	4.17559E+08	9.57788E-13	8.18497E-13	7.37082E-13	5.67253E-13	3.35954E-13	1.98951E-13	1.17625E-13	4.13259E-14	
EU 63 154	2.69612E+08	9.42860E-14	7.39300E-14	6.28641E-14	4.19140E-14	1.86325E-14	8.28287E-15	3.68207E-15	7.27636E-16	
LU 71 174	1.22687E+07	3.83163E-24	1.82163E-26	5.15044E-28	6.92325E-32	1.25094E-39	2.26025E-47	4.08390E-55	1.33328E-70	
LU 71 177	1.38242E+07	1.72696E-21	1.49876E-23	6.32945E-25	2.31982E-28	3.11617E-35	4.18588E-42	5.62280E-49	1.01459E-62	
HF 72 173	8.49653E+04	4.20645E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 175	6.04840E+06	4.76377E-15	9.22908E-20	6.66664E-23	9.34935E-31	1.83870E-46	3.61611E-62	7.11166E-78	0.00000E+00	
HF 72 178	9.78261E+08	1.94032E-22	1.81443E-22	1.73508E-22	1.55155E-22	1.24067E-22	9.92080E-23	7.93300E-23	5.07248E-23	
HF 72 179	1.89384E+10	9.29152E-24	9.25938E-24	9.23801E-24	9.18482E-24	9.07934E-24	8.97508E-24	8.87201E-24	8.66942E-24	
HF 72 180	1.98723E+04	1.57793E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 181	3.66357E+06	3.37088E-14	5.60557E-22	3.65207E-27	3.95685E-40	4.64439E-66	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 182	2.84077E+14	9.85786E-29	9.85786E-29	9.85786E-29	9.85786E-29	9.85785E-29	9.85784E-29	9.85783E-29	9.85782E-29	
TA 73 180	2.93458E+04	1.95913E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA 73 182	9.89362E+06	5.44796E-14	7.17224E-17	8.61526E-19	1.36243E-23	3.40706E-33	8.52015E-43	2.13066E-52	1.33246E-71	
W 74 181	1.20968E+07	1.46083E-17	6.43666E-20	1.72995E-21	2.04868E-25	2.87305E-33	4.02913E-41	5.65032E-49	1.11126E-64	
W 74 185	6.47801E+06	2.53434E-15	1.01033E-19	1.17985E-22	5.48549E-30	1.18726E-44	2.56971E-59	5.56181E-74	0.00000E+00	
W 74 187	8.59984E+04	4.99691E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 203	4.02525E+06	5.47768E-20	4.55459E-27	8.67653E-32	1.37439E-43	3.44821E-67	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 205	3.11947E+02	4.29609E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 204	1.19282E+08	6.52762E-22	3.76557E-22	2.60944E-22	1.04314E-22	1.66696E-23	2.66386E-24	4.25693E-25	1.08710E-26	
TL 81 206	2.52054E+02	9.87270E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 207	2.86188E+02	8.00551E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 203	1.86782E+05	2.18906E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 205	4.76590E+14	1.26273E-22	1.26273E-22	1.26273E-22	1.26273E-22	1.26273E-22	1.26273E-22	1.26273E-22	1.26273E-22	1.26273E-22
PB 82 207	7.95989E-01	2.16971E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)		4.31256E-10	2.18010E-11	1.33775E-11	4.36723E-12	9.14413E-13	4.07284E-13	2.30564E-13	8.89590E-14	
TOTAL (CURIES)		2.44954E-02	1.23830E-03	7.59840E-04	2.48058E-04	5.19386E-05	2.31337E-05	1.30960E-05	5.05287E-06	

COMPONENT : CONCRETE - RADIAL SEVENTH 6 INCHES - R4
VOLUME : 5.84000E+07 CC
: ABOVE VOLUME IS FOR THE SEVENTH 6 INCHES OF CONCRETE IN THE
: RADIAL DIRECTION
:
: (INTERVALS 7 81 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	1.64382E-13	1.38757E-13	1.23934E-13	9.34392E-14	5.31134E-14	3.01912E-14	1.71615E-14	5.54505E-15
HE	2	6	8.09751E-01	1.24680E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	3.52617E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	3.23951E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	1.16924E-23	1.16924E-23	1.16924E-23	1.16924E-23	1.16923E-23	1.16923E-23	1.16923E-23	1.16922E-23
B	5	12	1.99754E-02	4.86332E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	8.29812E-17	8.29511E-17	8.29311E-17	8.28810E-17	8.27809E-17	8.26809E-17	8.25810E-17	8.23816E-17
F	9	20	1.10023E+01	2.05092E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	2.48102E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	6.72403E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	1.20238E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	8.52699E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	3.85354E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.41286E-14	1.21366E-37	5.09050E-53	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	8.65662E-15	1.54021E-18	4.87233E-21	2.74243E-27	8.68777E-40	2.75221E-52	8.71890E-65	0.00000E+00
S	16	37	3.04012E+02	1.16976E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	8.04424E-18	8.04418E-18	8.04415E-18	8.04406E-18	8.04388E-18	8.04370E-18	8.04352E-18	8.04316E-18
AR	18	37	3.02684E+06	4.59762E-13	1.76603E-22	9.33197E-29	1.89423E-44	7.80384E-76	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	2.04821E-15	2.03243E-15	2.02198E-15	1.99608E-15	1.94527E-15	1.89576E-15	1.84751E-15	1.75466E-15
AR	18	41	6.60140E+03	5.70202E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	1.08059E-20	1.08059E-20	1.08059E-20	1.08059E-20	1.08059E-20	1.08059E-20	1.08059E-20	1.08059E-20
K	19	42	4.47192E+04	2.31939E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	2.29964E-15	2.29958E-15	2.29954E-15	2.29944E-15	2.29924E-15	2.29904E-15	2.29885E-15	2.29845E-15
CA	20	45	1.42623E+07	7.18490E-13	7.21422E-15	3.35765E-16	1.56911E-19	3.42673E-26	7.48359E-33	1.63433E-39	7.79478E-53
CA	20	47	3.91608E+05	3.62092E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	9.47843E-14	1.11188E-17	2.66445E-20	7.49014E-27	5.91876E-40	4.67697E-53	3.69577E-66	0.00000E+00
SC	21	47	2.96217E+05	7.86179E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	2.81177E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	9.66302E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.05147E+02	5.33926E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.04010E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	9.31582E-20	9.33481E-21	2.01386E-21	4.35349E-23	2.03447E-26	9.50756E-30	4.44305E-33	9.70310E-40
V	23	52	2.02084E+02	2.74518E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	6.42763E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	9.54170E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	4.36891E-14	5.75272E-26	6.88992E-34	1.08166E-53	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	5.31911E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	8.47518E-23	8.47518E-23	8.47517E-23	8.47517E-23	8.47515E-23	8.47514E-23	8.47512E-23	8.47509E-23
MN	25	54	2.61565E+07	6.00420E-14	4.88522E-15	9.17285E-16	1.40138E-17	3.27083E-21	7.63397E-25	1.78176E-28	9.70612E-36
MN	25	56	9.29152E+03	6.31398E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.01479E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.58432E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	9.02465E-12	4.05509E-12	2.37893E-12	6.27096E-13	4.35749E-14	3.02788E-15	2.10398E-16	1.01589E-18
FE	26	59	3.89409E+06	9.69565E-14	4.65540E-21	6.14993E-26	3.90100E-38	1.56948E-62	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	1.97977E-28	1.97973E-28	1.97970E-28	1.97963E-28	1.97950E-28	1.97936E-28	1.97922E-28	1.97895E-28
FE	26	61	3.60001E+02	1.95390E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	6.33635E-19	3.87492E-20	6.01468E-21	5.70937E-23	5.14440E-27	4.63532E-31	4.17668E-35	3.39094E-43
CO	27	58	6.13405E+06	1.67859E-16	3.79184E-21	3.03011E-24	5.46983E-32	1.78234E-47	5.80776E-63	1.89246E-78	0.00000E+00
CO	27	60	1.65983E+08	2.21594E-13	1.49231E-13	1.14655E-13	5.93234E-14	1.58816E-14	4.25167E-15	1.13822E-15	8.15755E-17
CO	27	61	5.94007E+03	1.64996E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	8.82705E-18	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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CD 27 64	2.99999E-01	5.34605E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI 28 59	2.52853E+12	6.20347E-19	6.20333E-19	6.20322E-19	6.20295E-19	6.20241E-19	6.20187E-19	6.20134E-19	6.20026E-19	
NI 28 63	2.99020E+09	9.68762E-17	9.47090E-17	9.32910E-17	8.98584E-17	8.33118E-17	7.72593E-17	7.16465E-17	6.16146E-17	
NI 28 65	9.21738E+03	5.78654E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU 29 64	4.62098E+04	1.26352E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB 37 86	1.60972E+06	1.08586E-19	2.14428E-37	3.37510E-49	1.04913E-78	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 87	1.00799E+04	5.97279E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 89	4.50096E+06	3.32607E-18	1.54912E-24	9.30804E-29	2.60491E-39	3.04005E-60	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 90	8.86377E+08	1.09203E-22	1.01410E-22	9.65266E-23	8.53216E-23	6.66628E-23	5.20845E-23	4.06942E-23	2.48417E-23	
SR 38 91	3.46315E+04	7.97555E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 92	9.75604E+03	3.89599E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 93	4.50095E+02	1.99587E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 89	1.56998E+01	7.57179E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 90	2.30281E+05	1.22078E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 91	5.09667E+06	8.84543E-19	2.26444E-24	4.23768E-28	2.03019E-37	4.65951E-56	1.06941E-74	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 92	1.27440E+04	2.80758E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 94	1.12200E+03	6.25456E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 96	9.80406E+00	5.89686E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 88	7.20602E+06	1.32255E-21	1.46716E-25	3.38731E-28	8.67573E-35	5.69907E-48	3.73307E-61	2.44876E-74	0.00000E+00	
ZR 40 89	2.82249E+05	1.51849E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 93	4.74758E+13	3.41452E-21	3.41452E-21	3.41452E-21	3.41451E-21	3.41449E-21	3.41448E-21	3.41446E-21	3.41443E-21	
ZR 40 95	5.63534E+06	1.33711E-17	1.17197E-22	4.98217E-26	1.85639E-34	2.57725E-51	3.57803E-68	0.00000E+00	0.00000E+00	
ZR 40 97	6.04840E+04	2.25768E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 91	2.23888E+10	7.41437E-23	7.39238E-23	7.37775E-23	7.34151E-23	7.26897E-23	7.19734E-23	7.12642E-23	6.98667E-23	
NB 41 92	8.80746E+05	2.32126E-18	1.01751E-50	2.72527E-72	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 94	6.30134E+11	4.89034E-19	4.88983E-19	4.88949E-19	4.88864E-19	4.88694E-19	4.88525E-19	4.88355E-19	4.88016E-19	
NB 41 95	3.02684E+06	2.64034E-19	1.01421E-28	5.35921E-35	1.08783E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 96	8.28132E+04	5.51160E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 97	4.33217E+03	4.86013E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 98	3.06025E+03	1.55416E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 100	3.09994E+00	1.09771E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 93	2.84077E+11	4.41220E-21	4.41118E-21	4.41050E-21	4.40880E-21	4.40541E-21	4.40202E-21	4.39863E-21	4.39186E-21	
MO 42 99	2.41515E+05	4.10498E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 101	8.76292E+02	1.98319E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 104	2.61565E+02	1.20179E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 106	7.84813E+03	6.07913E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD 46 107	2.05134E+14	2.98684E-27	2.98684E-27	2.98684E-27	2.98683E-27	2.98683E-27	2.98683E-27	2.98682E-27	2.98682E-27	
PD 46 109	4.83704E+04	6.18028E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 106	7.34422E+05	2.79049E-20	4.37043E-59	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 108	4.10389E+09	4.72795E-17	4.65295E-17	4.60361E-17	4.48254E-17	4.24988E-17	4.02929E-17	3.82015E-17	3.43387E-17	
AG 47 110	2.15826E+07	6.43079E-15	3.07459E-16	4.05013E-17	2.55080E-19	1.01178E-23	4.01324E-28	1.59185E-32	2.50452E-41	
CD 48 109	3.99508E+07	5.42532E-21	1.04970E-21	3.51149E-22	2.27279E-23	9.52116E-26	3.98865E-28	1.67092E-30	2.93237E-35	
CD 48 111	2.92221E+03	1.29176E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 115	1.92541E+05	4.14329E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 117	1.22399E+04	1.26788E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 119	5.97541E+02	7.11299E-25	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 111	2.42444E+05	1.93581E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 112	1.25400E+03	1.02675E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 114	4.27869E+06	1.82006E-21	3.97480E-28	1.44147E-32	1.14164E-43	7.16066E-66	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 115	1.61497E+04	2.05289E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 116	1.40098E+01	9.56203E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 117	6.95931E+03	1.32773E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 118	2.63955E+02	5.03568E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 119	1.26027E+02	5.01670E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 120	4.40093E+01	1.13408E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 122	1.00998E+01	1.55397E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 113	9.94473E+06	4.79146E-18	6.52668E-21	8.02003E-23	1.34243E-27	3.76099E-37	1.05370E-46	2.95208E-56	2.31719E-75	
SN 50 121	9.72156E+04	2.36483E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 123	1.07967E+07	3.44104E-17	7.88955E-20	1.37181E-21	5.46898E-26	8.69179E-35	1.38138E-43	2.19540E-52	5.54553E-70	
SN 50 125	8.12599E+05	4.24047E-16	3.59399E-51	1.49400E-74	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
I 53 130	4.44981E+04	4.52882E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	2.10016E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	2.21204E-18	2.29682E-69	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	2.06856E-14	7.51152E-15	3.82327E-15	7.86647E-16	2.41400E-17	8.24651E-19	2.81711E-20	3.28759E-23	
EU 63 152	4.17559E+08	2.00006E-13	1.70919E-13	1.53918E-13	1.18450E-13	7.01498E-14	4.15450E-14	2.46043E-14	8.62969E-15	
EU 63 154	2.69812E+08	1.97677E-14	1.54999E-14	1.31799E-14	8.78754E-15	3.90641E-15	1.73656E-15	7.71970E-16	1.52554E-16	
LU 71 174	1.22687E+07	9.08559E-25	4.31946E-27	1.22128E-28	1.64164E-32	2.96623E-40	5.35951E-48	9.68377E-56	3.16148E-71	
LU 71 177	1.38242E+07	4.16858E-22	3.61775E-24	1.52782E-25	5.59963E-29	7.52188E-36	1.01040E-42	1.35724E-49	2.44904E-63	
HF 72 173	8.49653E+04	1.03070E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 175	6.04840E+06	9.97254E-16	1.93609E-20	1.39854E-23	1.96132E-31	3.85726E-47	7.58592E-63	1.49185E-78	0.00000E+00	
HF 72 178	9.78261E+08	4.70144E-23	4.39641E-23	4.20413E-23	3.75943E-23	3.00617E-23	2.40383E-23	1.92218E-23	1.22907E-23	
HF 72 179	1.89384E+10	2.24653E-24	2.23876E-24	2.23359E-24	2.22073E-24	2.19523E-24	2.17002E-24	2.14510E-24	2.09611E-24	
HF 72 180	1.98723E+04	3.82661E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 181	3.66357E+06	7.14269E-15	1.18779E-22	7.73852E-28	8.38431E-41	9.84116E-67	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 182	2.84077E+14	2.39494E-29	2.39494E-29	2.39494E-29	2.39494E-29	2.39493E-29	2.39493E-29	2.39493E-29	2.39493E-29	
TA 73 180	2.93458E+04	4.79751E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA 73 182	9.89362E+06	1.16300E-14	1.53110E-17	1.03915E-19	2.90845E-24	7.27325E-34	1.81884E-43	4.54844E-53	2.84448E-72	
W 74 181	1.20968E+07	5.57938E-18	1.57713E-20	4.23879E-22	5.01975E-26	7.03964E-34	9.87230E-42	1.38446E-49	2.72285E-65	
W 74 185	6.47801E+06	5.37828E-16	2.14410E-20	2.50214E-23	1.16411E-30	2.51957E-45	5.45335E-60	1.18031E-74	0.00000E+00	
W 74 187	8.59984E+04	1.05853E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 203	4.02125E+06	1.33201E-20	1.10754E-27	2.10987E-32	3.34209E-44	8.38501E-68	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 205	3.11147E+02	1.04961E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 204	1.19282E+08	1.58306E-22	9.13217E-23	6.32836E-23	2.52979E-23	4.04269E-24	6.46034E-25	1.03238E-25	2.65641E-27	
TL 81 206	2.52054E+02	2.40366E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 207	2.86138E+02	1.94395E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 203	1.86782E+05	5.36373E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 205	4.76390E+14	3.09334E-23	3.09334E-23	3.09334E-23	3.09334E-23	3.09334E-23	3.09334E-23	3.09334E-23	3.09334E-23	
PB 82 207	7.95989E-01	5.31096E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TOTAL (CURIES/CC)		9.04541E-11	4.55401E-12	2.79428E-12	9.12338E-13	1.91112E-13	8.51573E-14	4.82344E-14	1.86505E-14	
TOTAL (CURIES)		5.28252E-03	2.65954E-04	1.63186E-04	5.32805E-05	1.11610E-05	4.97318E-06	2.81689E-06	1.08919E-06	

FORM IA1292 12 3546

COMPONENT : CONCRETE - RADIAL EIGHTH 6 INCHES - R4
VOLUME : 5.99008E+07 CC
: ABOVE VOLUME IS FOR THE EIGHTH 6 INCHES OF CONCRETE IN THE
: RADIAL DIRECTION
:
: (INTERVALS 82-84 TOTGRDR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	3.61820E-14	3.05418E-14	2.72791E-14	2.05668E-14	1.16908E-14	6.64536E-15	3.77740E-15	1.22052E-15
HE	2	6	8.09751E-01	2.92729E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	7.76318E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	7.58052E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	2.72564E-24	2.72564E-24	2.72564E-24	2.72564E-24	2.72563E-24	2.72562E-24	2.72561E-24	2.72560E-24
B	5	12	1.99754E-02	1.07056E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	1.82724E-17	1.82657E-17	1.82613E-17	1.82503E-17	1.82282E-17	1.82062E-17	1.81842E-17	1.81403E-17
F	9	20	1.10023E+01	5.00075E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	5.96562E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	1.48171E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	2.87893E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	1.90429E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	9.03929E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	3.32385E-15	2.85521E-38	1.19757E-53	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60330E+06	1.90697E-15	3.39294E-19	1.07333E-21	6.04129E-28	1.91383E-40	6.06284E-53	1.92069E-65	0.00000E+00
S	16	37	3.04012E+02	2.81706E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	1.77584E-18	1.77583E-18	1.77582E-18	1.77580E-18	1.77576E-18	1.77573E-18	1.77569E-18	1.77561E-18
AR	18	37	3.02684E+06	1.09656E-13	4.21208E-23	2.22573E-29	4.51785E-45	1.86126E-76	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	4.62363E-16	4.58800E-16	4.56440E-16	4.50594E-16	4.39125E-16	4.27948E-16	4.17056E-16	3.96895E-16
AR	18	41	6.60140E+03	1.36533E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	2.37882E-21	2.37882E-21	2.37882E-21	2.37882E-21	2.37882E-21	2.37882E-21	2.37882E-21	2.37882E-21
K	19	42	4.47192E+04	5.10885E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	5.05917E-16	5.05904E-16	5.05895E-16	5.05873E-16	5.05829E-16	5.05785E-16	5.05741E-16	5.05654E-16
CA	20	45	1.42623E+07	1.58264E-13	1.58909E-15	7.39598E-17	3.45632E-20	7.54815E-27	1.64843E-33	3.59998E-40	1.71696E-53
CA	20	47	3.91608E+05	7.96606E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	2.08989E-14	2.45158E-18	5.87481E-21	1.65150E-27	1.30502E-40	1.03122E-53	8.14878E-67	0.00000E+00
SC	21	47	2.96217E+05	1.84643E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	6.83204E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	2.30734E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	1.30936E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	2.29110E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	2.28520E-20	2.28986E-21	4.94005E-22	1.06792E-23	4.99061E-27	2.33223E-30	1.08989E-33	2.38020E-40
V	23	52	2.02084E+02	6.04605E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	1.55109E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	2.34025E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	9.73055E-15	1.27542E-26	1.52755E-34	2.39813E-54	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	1.27229E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	2.07898E-23	2.07898E-23	2.07898E-23	2.07898E-23	2.07897E-23	2.07897E-23	2.07897E-23	2.07896E-23
MN	25	54	2.61565E+07	1.41779E-14	1.15356E-15	2.16601E-16	3.30912E-18	7.72362E-22	1.80263E-25	4.20732E-29	2.29193E-36
MN	25	56	9.29152E+03	1.39154E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	2.44089E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	3.88006E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.98556E-12	8.92183E-13	5.23401E-13	1.37971E-13	9.58714E-15	6.66180E-16	4.62907E-17	2.23511E-19
FE	26	59	3.89409E+06	2.13718E-14	1.02617E-21	1.35561E-26	8.59885E-39	3.45955E-63	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	4.85523E-29	4.85513E-29	4.85506E-29	4.85490E-29	4.85456E-29	4.85422E-29	4.85389E-29	4.85321E-29
FE	26	61	3.60001E+02	4.79287E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	1.55412E-19	9.50407E-21	1.47523E-21	1.40034E-23	1.26177E-27	1.13691E-31	1.02442E-35	8.31700E-44
CO	27	58	6.13405E+06	3.95662E-17	8.93782E-22	7.14234E-25	1.28930E-32	4.20120E-48	1.36896E-63	0.00000E+00	0.00000E+00
CO	27	60	1.65983E+08	4.88865E-14	3.29222E-14	2.52943E-14	1.30875E-14	3.50367E-15	9.37971E-16	2.51105E-16	1.79966E-17
CO	27	61	5.94007E+03	3.94931E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	2.14438E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	1.31138E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	1.36569E-19	1.36565E-19	1.36563E-19	1.36557E-19	1.36545E-19	1.36533E-19	1.36521E-19	1.36498E-19
NI	28	63	2.90020E+09	2.14557E-17	2.09757E-17	2.06617E-17	1.98976E-17	1.84515E-17	1.71110E-17	1.58679E-17	1.36461E-17
NI	28	65	9.21738E+03	1.38602E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	2.78307E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.60972E+06	2.65608E-20	5.24506E-38	8.25574E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	1.45549E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.50096E+06	8.01992E-19	3.73529E-25	2.24439E-29	6.28105E-40	4.91905E-61	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	2.65367E-23	2.46431E-23	2.34563E-23	2.07335E-23	1.61993E-23	1.26567E-23	9.88885E-24	6.03664E-24
SR	38	91	3.48315E+04	1.94331E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	9.54540E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.50095E+02	4.89368E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	1.85567E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	2.68745E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	2.14086E-19	5.48062E-25	1.02564E-28	4.91365E-38	1.12774E-56	2.58829E-75	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	6.82770E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	1.52853E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	1.44648E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	3.18410E-22	3.53225E-26	8.15509E-29	2.08872E-35	1.37013E-48	8.98754E-62	5.89550E-75	0.00000E+00
ZR	40	89	2.82249E+05	3.68572E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	7.54736E-22	7.54735E-22	7.54732E-22	7.54729E-22	7.54725E-22	7.54722E-22	7.54715E-22	7.54715E-22
ZR	40	95	5.63534E+06	3.27949E-18	2.87444E-23	1.22196E-26	4.55310E-35	6.32113E-52	8.77571E-69	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	5.18945E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	1.81480E-23	1.80942E-23	1.80584E-23	1.79692E-23	1.77921E-23	1.76168E-23	1.74432E-23	1.71011E-23
NB	41	92	8.80746E+05	5.65903E-19	2.48059E-51	6.64396E-73	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	1.08706E-19	1.08694E-19	1.08687E-19	1.08668E-19	1.08630E-19	1.08592E-19	1.08555E-19	1.08479E-19
NB	41	95	3.07384E+06	6.38315E-20	2.45189E-29	1.29561E-35	2.62988AE-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	1.29110E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	1.17795E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	3.79519E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	2.69207E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	1.01340E-21	1.01316E-21	1.01301E-21	1.01262E-21	1.01184E-21	1.01106E-21	1.01028E-21	1.00873E-21
MO	42	99	2.41515E+05	9.28563E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	4.46925E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	2.93071E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84813E+03	1.46932E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.05134E+14	7.23958E-28	7.23958E-28	7.23957E-28	7.23957E-28	7.23956E-28	7.23956E-28	7.23955E-28	7.23953E-28
PD	46	109	4.83704E+04	1.49722E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34422E+05	6.84513E-21	1.07208E-59	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10389E+09	1.04494E-17	1.02836E-17	1.01746E-17	9.90700E-18	9.39277E-18	8.90524E-18	8.44301E-18	7.58928E-18
AG	47	110	2.15826E+07	1.43472E-15	6.65945E-17	9.03589E-18	5.69086E-20	2.25730E-24	8.95359E-29	3.55144E-33	5.58763E-42
CD	48	109	3.99508E+07	1.31355E-21	2.54148E-22	8.50185E-23	5.50276E-24	2.30522E-26	9.65712E-29	4.04554E-31	7.09972E-36
CD	48	111	2.92221E+03	3.13835E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	1.01341E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22399E+04	3.11011E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	1.74483E-25	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42444E+05	4.73546E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.25400E+03	2.48617E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	4.41833E-22	9.64912E-29	3.49926E-33	2.77142E-44	1.73830E-66	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	4.97219E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.40998E+01	2.32892E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.05931E+03	3.21928E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63955E+02	1.23071E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	1.21876E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.40093E+01	2.78132E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.00998E+01	3.81193E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	113	9.94473E+06	1.10083E-18	1.49950E-21	1.84259E-23	3.08421E-28	8.64080E-38	2.42086E-47	6.78236E-57	5.32370E-76
SN	50	121	9.72156E+04	5.25236E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	7.67835E-18	1.76047E-20	3.06105E-22	1.22035E-26	1.93949E-35	3.08241E-44	4.89883E-53	1.23738E-70
SN	50	125	8.12599E+05	9.41941E-17	7.98537E-52	3.31863E-75	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

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I 53 130	4.44981E+04	1.09478E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	5.06628E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58998E+05	5.42620E-19	5.63418E-70	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	4.60754E-15	1.67313E-15	8.51602E-16	1.57408E-16	5.37698E-18	1.83684E-19	6.27488E-21	7.32283E-24	
EU 63 152	4.17559E+08	4.40089E-14	3.76087E-14	3.38678E-14	2.60635E-14	1.54357E-14	9.14150E-15	5.41390E-15	1.89887E-15	
EU 63 154	2.69812E+08	4.36439E-15	3.42214E-15	2.90991E-15	1.94015E-15	8.62476E-16	3.83405E-16	1.70439E-16	3.36815E-17	
LU 71 174	1.22687E+07	2.16735E-25	1.83039E-27	2.91330E-29	3.91607E-33	7.07562E-41	1.27849E-48	2.31002E-56	7.54157E-72	
LU 71 177	1.38242E+07	1.00950E-22	8.76103E-25	3.69989E-26	1.35605E-29	1.82156E-36	2.44686E-43	3.28681E-50	5.93080E-64	
HF 72 173	8.49653E+04	2.52834E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 175	6.04840E+06	2.20316E-16	4.27725E-21	3.08968E-24	4.33299E-32	8.52154E-48	1.67590E-63	0.00000E+00	0.00000E+00	
HF 72 178	9.78261E+08	1.14215E-23	1.06804E-23	1.02133E-23	9.13299E-24	7.30304E-24	5.83976E-24	4.66967E-24	2.98585E-24	
HF 72 179	1.89384E+10	5.44780E-25	5.42896E-25	5.41643E-25	5.38524E-25	5.32540E-25	5.26227E-25	5.20164E-25	5.08305E-25	
HF 72 180	1.98723E+04	9.30234E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 181	3.66357E+06	1.59169E-15	2.64688E-23	1.72446E-28	1.86837E-41	2.19302E-67	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 182	2.84077E+14	5.83089E-30	5.83089E-30	5.83089E-30	5.83089E-30	5.83088E-30	5.83088E-30	5.83087E-30	5.83086E-30	
TA 73 180	2.93458E+04	1.17621E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TA 73 182	9.89362E+06	2.60777E-15	3.43313E-18	4.12386E-20	6.52152E-25	1.63086E-34	4.07835E-44	1.01988E-53	6.37807E-73	
W 74 181	1.20968E+07	8.78017E-19	3.86869E-21	1.03977E-22	1.23134E-26	1.72682E-34	2.42167E-42	3.39607E-50	6.67912E-66	
W 74 185	6.47801E+06	1.19905E-16	4.78013E-21	5.57837E-24	2.59531E-31	5.61722E-46	1.21579E-60	2.63142E-75	0.00000E+00	
W 74 187	8.59984E+04	2.35903E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 203	4.02525E+06	3.24543E-21	2.69851E-28	5.14869E-33	8.14299E-45	2.04300E-68	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 205	3.11947E+02	2.56807E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 204	1.19282E+08	3.84877E-23	2.22023E-23	1.53856E-23	6.15047E-24	9.82865E-25	1.57065E-25	2.50995E-26	6.40967E-28	
TL 81 206	2.52054E+02	5.86286E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 207	2.86188E+02	4.73063E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 203	1.86782E+05	1.31573E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 205	4.76340E+14	7.58655E-24	7.58655E-24	7.58655E-24	7.58655E-24	7.58654E-24	7.58654E-24	7.58654E-24	7.58653E-24	
PB 82 207	7.95989E-01	1.30161E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TOTAL (CURIES/CC)		1.99699E-11	1.00218E-12	6.14917E-13	2.00796E-13	4.20781E-14	1.87546E-14	1.06264E-14	4.11443E-15	
TOTAL (CURIES)		1.19620E-03	6.00305E-05	3.68335E-05	1.20277E-05	2.52048E-06	1.12340E-06	6.36524E-07	2.46454E-07	

COMPONENT : CONCRETE - AXIAL UP - FIRST 6 INCHES - R4
VOLUME : 1.44000E+07 CC
: ABOVE VOLUME IS FOR THE FIRST 6 INCHES OF CONCRETE IN THE
: AXIAL UP DIRECTION
:
: (INTERVALS 46-48 TOTGUPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	2.88346E-07	2.43398E-07	2.17396E-07	1.63904E-07	9.31675E-08	5.29591E-08	3.01034E-08	9.72671E-09
HE	2	6	8.09751E-01	2.09635E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	6.17731E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	5.70959E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	4.79255E-18	4.79255E-18	4.79255E-18	4.79254E-18	4.79253E-18	4.79251E-18	4.79250E-18	4.79248E-18
B	5	12	1.99754E-02	8.54753E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	1.44733E-10	1.44680E-10	1.44645E-10	1.44558E-10	1.44383E-10	1.44209E-10	1.44035E-10	1.43687E-10
F	9	20	1.10023E+01	1.82153E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	2.79365E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	1.37835E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	1.46665E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	1.28141E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	6.10904E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	2.19126E-09	1.88230E-32	7.89504E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	1.47780E-08	2.62935E-12	8.31770E-15	4.68167E-21	1.48311E-33	4.69838E-46	1.48843E-58	0.00000E+00
S	16	37	3.04012E+02	1.27970E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	1.41437E-11	1.41436E-11	1.41435E-11	1.41434E-11	1.41431E-11	1.41428E-11	1.41424E-11	1.41418E-11
AR	18	37	3.02684E+06	5.94718E-08	2.28442E-17	1.20712E-23	2.45026E-39	1.00945E-70	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	2.35144E-09	2.33332E-09	2.32132E-09	2.29159E-09	2.23326E-09	2.17641E-09	2.12102E-09	2.01442E-09
AR	18	41	6.60140E+03	6.97879E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	1.90132E-14	1.90132E-14	1.90132E-14	1.90132E-14	1.90132E-14	1.90132E-14	1.90132E-14	1.90132E-14
K	19	42	4.47192E+04	4.11584E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	3.94816E-09	3.94805E-09	3.94799E-09	3.94781E-09	3.94747E-09	3.94713E-09	3.94678E-09	3.94610E-09
CA	20	45	1.42623E+07	1.26064E-06	1.26579E-08	5.89124E-10	2.75312E-13	6.01246E-20	1.31305E-26	2.86755E-33	1.36764E-46
CA	20	47	3.91608E+05	6.21629E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	1.70100E-07	1.99539E-11	4.78163E-14	1.34419E-20	1.06218E-33	8.39332E-47	6.63245E-60	0.00000E+00
SC	21	47	2.96217E+05	1.27531E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	2.66525E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	1.24548E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	4.34983E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.82528E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	7.55797E-15	7.57338E-16	1.63385E-16	3.53201E-18	1.65057E-21	7.71353E-25	3.60466E-28	7.87217E-35
V	23	52	2.02084E+02	4.80137E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	6.82972E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	7.75842E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	7.76890E-08	1.01830E-19	1.21960E-27	1.91467E-47	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	6.57113E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	6.87606E-18	6.87606E-18	6.87606E-18	6.87605E-18	6.87604E-18	6.87603E-18	6.87601E-18	6.87599E-18
MN	25	54	2.61565E+07	8.89537E-09	7.23758E-10	1.35898E-10	2.07617E-12	4.84582E-16	1.13099E-19	2.63972E-23	1.43749E-30
MN	25	56	9.29152E+03	1.14604E-04	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.15254E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.31544E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.55081E-05	6.94834E-06	4.08800E-06	1.07761E-06	7.48798E-08	5.20316E-09	3.61551E-10	1.74572E-12
FE	26	59	3.89409E+06	1.76622E-07	8.48057E-15	1.12031E-19	7.10632E-32	2.85907E-56	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	1.61186E-23	1.61183E-23	1.61181E-23	1.61175E-23	1.61164E-23	1.61153E-23	1.61141E-23	1.61119E-23
FE	26	61	3.60001E+02	1.58560E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	5.15015E-14	3.14952E-15	4.88870E-16	4.64055E-18	4.18134E-22	3.76756E-26	3.39478E-30	2.75614E-38
CO	27	58	6.13405E+06	2.60778E-11	5.89085E-16	4.70746E-19	8.49771E-27	2.76898E-42	9.02270E-58	2.94005E-73	0.00000E+00
CO	27	60	1.65983E+08	4.15753E-07	2.79986E-07	2.15114E-07	1.11302E-07	2.97968E-08	7.97694E-09	2.13552E-09	1.55051E-10
CO	27	61	5.94007E+03	2.04156E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	8.30689E-13	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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CO 27 64	2.99999E-01	4.33865E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI 28 59	2.52053E+12	1.09324E-12	1.09321E-12	1.09319E-12	1.09315E-12	1.09305E-12	1.09296E-12	1.09286E-12	1.09267E-12	
NI 28 63	2.90020E+09	1.52905E-10	1.49484E-10	1.47246E-10	1.41796E-10	1.31495E-10	1.21942E-10	1.13083E-10	9.72494E-11	
NI 28 65	9.21738E+03	7.15201E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CU 29 64	4.62098E+04	2.25113E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
RB 37 86	1.60972E+06	9.16550E-15	1.80994E-32	2.84886E-44	8.85547E-74	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 87	1.00799E+04	5.31947E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 89	4.50096E+06	3.66145E-13	1.70533E-19	1.02466E-23	2.86757E-34	2.24576E-55	1.75876E-76	0.00000E+00	0.00000E+00	
SR 38 90	8.86377E+08	1.02899E-17	9.55563E-18	9.09545E-18	8.03964E-18	6.28147E-18	4.90779E-18	3.83452E-18	2.34078E-18	
SR 38 91	3.48315E+04	7.11345E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 92	9.75604E+03	3.21547E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 93	4.50095E+02	1.62985E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 89	1.56998E+01	6.25214E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 90	2.30281E+05	2.14504E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 91	5.09667E+06	9.09308E-14	2.32784E-19	4.35632E-23	2.08703E-32	4.78997E-51	1.09935E-69	0.00000E+00	0.00000E+00	
Y 39 92	1.27440E+04	2.59704E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 94	1.12200E+03	5.34819E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 96	9.80406E+00	4.78567E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
ZR 40 88	7.20602E+06	1.45279E-16	1.61164E-20	3.72086E-23	9.53005E-30	6.25137E-43	4.10068E-56	2.68990E-69	0.00000E+00	
ZR 40 89	2.82249E+05	1.47329E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
ZR 40 93	4.74758E+13	5.91495E-15	5.91494E-15	5.91494E-15	5.91492E-15	5.91490E-15	5.91487E-15	5.91484E-15	5.91478E-15	
ZR 40 95	5.63534E+06	1.08718E-12	9.52901E-18	4.05089E-21	1.50939E-29	2.09550E-46	2.90922E-63	0.00000E+00	0.00000E+00	
ZR 40 97	6.04840E+04	9.22658E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 91	2.20888E+10	6.20230E-18	6.18390E-18	6.17167E-18	6.14118E-18	6.08067E-18	6.02075E-18	5.96142E-18	5.84452E-18	
NB 41 92	8.80746E+05	2.12035E-13	9.29442E-46	2.48939E-67	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 94	6.30134E+11	1.07948E-12	1.07936E-12	1.07929E-12	1.07910E-12	1.07873E-12	1.07835E-12	1.07798E-12	1.07723E-12	
NB 41 95	3.02684E+06	2.77272E-14	1.06505E-23	5.62790E-30	1.14237E-45	4.70632E-77	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 96	8.28132E+04	4.99133E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 97	4.33217E+03	4.85563E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 98	3.06025E+03	1.34337E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 100	3.09994E+00	8.93576E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
MO 42 93	2.84077E+11	1.31166E-14	1.31136E-14	1.31116E-14	1.31065E-14	1.30964E-14	1.30864E-14	1.30763E-14	1.30562E-14	
MO 42 99	2.41515E+05	1.14675E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
MO 42 101	8.76292E+02	5.47831E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
RH 45 104	2.61565E+02	1.06414E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
RH 45 106	7.84813E+03	6.17400E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PD 46 107	2.05134E+14	3.00419E-22	3.00419E-22	3.00419E-22	3.00419E-22	3.00419E-22	3.00418E-22	3.00418E-22	3.00417E-22	
PD 46 109	4.83704E+04	6.29007E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
AG 47 106	7.34422E+05	2.26393E-15	3.54575E-54	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
AG 47 108	4.10389E+09	9.35787E-11	9.20942E-11	9.11177E-11	8.87215E-11	8.41164E-11	7.97503E-11	7.56108E-11	6.79653E-11	
AG 47 110	2.15826E+07	1.66845E-08	7.97692E-10	1.05079E-10	6.61796E-13	2.62503E-17	1.04122E-21	4.13001E-26	6.49790E-35	
CD 48 109	3.99508E+07	5.54712E-16	1.07327E-16	3.59032E-17	2.32381E-18	9.73491E-21	4.07819E-23	1.70843E-25	2.99820E-30	
CD 48 111	2.92221E+03	1.22882E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CD 48 115	1.92541E+05	3.50533E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CD 48 117	1.22399E+04	1.02878E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CD 48 119	5.97541E+02	5.77080E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 111	2.42444E+05	1.63251E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 112	1.25400E+03	1.05002E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 114	4.27869E+06	1.76505E-16	3.85465E-23	1.39790E-27	1.10713E-38	6.94422E-61	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 115	1.61497E+04	2.09367E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 116	1.40998E+01	8.61862E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 117	6.95931E+03	1.31988E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 118	2.63955E+02	4.30383E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 119	1.26027E+02	4.77393E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 120	4.40093E+01	9.22973E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 122	1.00998E+01	1.26074E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SN 50 113	9.94473E+06	1.54847E-11	2.10925E-14	2.59186E-16	4.33837E-21	1.21545E-30	3.40528E-40	9.54033E-50	7.48853E-69	
SN 50 121	9.72156E+04	4.92008E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SN 50 123	1.07967E+07	6.61867E-11	1.51751E-13	2.63860E-15	1.05193E-19	1.67182E-28	2.65701E-37	4.22275E-46	1.06662E-63	
SN 50 125	8.12599E+05	9.48888E-10	8.04225E-45	3.34311E-68	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
I 53 130	4.44981E+04	4.47155E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
XE 54 133	4.56018E+05	2.33476E-14	7.44909E-77	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CS 55 132	5.58990E+05	1.79464E-13	1.86343E-64	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CS 55 134	6.47801E+07	5.12275E-08	1.86022E-08	9.46827E-09	1.75000E-09	5.97822E-11	2.04223E-12	6.97653E-14	8.14166E-17	
EU 63 152	4.17559E+08	3.47045E-07	2.96575E-07	2.67074E-07	2.05532E-07	1.21723E-07	7.20880E-08	4.26929E-08	1.49741E-08	
EU 63 154	2.69812E+08	3.80454E-08	2.98315E-08	2.53663E-08	1.69127E-08	7.51839E-09	3.34223E-09	1.48575E-09	2.93609E-10	
LU 71 174	1.22687E+07	1.23491E-19	5.87100E-22	1.65996E-23	2.23132E-27	4.03170E-35	7.28463E-43	1.31622E-50	4.29708E-66	
LU 71 177	1.38242E+07	4.28947E-17	3.72266E-19	1.57213E-20	5.76202E-24	7.74002E-31	1.03970E-37	1.39661E-44	2.52007E-58	
HF 72 173	8.49653E+04	8.36212E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 175	6.04840E+06	1.95151E-09	3.78870E-14	2.73677E-17	3.83807E-25	7.54819E-41	1.48447E-56	2.91946E-72	0.00000E+00	
HF 72 178	9.78261E+08	4.51376E-18	4.22090E-18	4.03630E-18	3.60935E-18	2.88616E-18	2.30787E-18	1.84545E-18	1.18001E-18	
HF 72 179	1.89384E+10	2.24070E-19	2.23294E-19	2.22779E-19	2.21496E-19	2.18953E-19	2.16438E-19	2.13953E-19	2.09067E-19	
HF 72 180	1.98723E+04	3.60297E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 181	3.66357E+06	1.77214E-08	2.94695E-16	1.91997E-21	2.08019E-34	2.44164E-60	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 182	2.84077E+14	2.18388E-24	2.18388E-24	2.18388E-24	2.18388E-24	2.18388E-24	2.18388E-24	2.18388E-24	2.18387E-24	
TA 73 180	2.93458E+04	3.92217E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TA 73 182	9.89362E+06	3.34438E-08	4.40288E-11	5.28872E-13	8.36365E-18	2.09152E-27	5.23034E-37	1.30797E-46	8.17969E-66	
W 74 181	1.20968E+07	2.90465E-13	1.27983E-15	3.43975E-17	4.07350E-21	5.71263E-29	8.01153E-37	1.12348E-44	2.20958E-60	
W 74 185	6.47801E+06	1.22774E-09	4.89448E-14	5.71182E-17	2.65740E-24	5.75159E-39	1.24488E-53	2.69437E-68	0.00000E+00	
W 74 187	8.59984E+04	2.67822E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 203	4.02525E+06	1.19089E-15	9.90200E-23	1.88634E-27	2.98801E-39	7.49665E-63	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 205	3.11947E+02	8.82886E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 204	1.19282E+08	1.49982E-17	8.65199E-18	5.99561E-18	2.39677E-18	3.83012E-19	6.12065E-20	9.78098E-21	2.49778E-22	
TL 81 206	2.52054E+02	2.11713E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 207	2.86188E+02	1.77719E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 203	1.86782E+05	4.35221E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 205	4.76390E+14	2.51681E-18	2.51681E-18	2.51681E-18	2.51681E-18	2.51680E-18	2.51680E-18	2.51680E-18	2.51680E-18	
PB 82 207	7.95989E-01	4.36448E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TOTAL (CURIES/CC)		1.58918E-04	7.85766E-06	4.82991E-06	1.58364E-06	3.33701E-07	1.48057E-07	8.31960E-08	3.14349E-08	
TOTAL (CURIES)		2.28842E+03	1.13150E+02	6.95507E+01	2.28044E+01	4.80530E+00	2.13202E+00	1.19802E+00	4.52663E-01	

COMPONENT : CONCRETE - AXIAL UP - SECOND 6 INCHES - R4
VOLUME : 1.440000+07 CC
: ABOVE VOLUME IS FOR THE SECOND 6 INCHES OF CONCRETE IN THE
: AXIAL UP DIRECTION
:
: (INTERVALS 49-51 TOTGUPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	AT TIME 20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	7.38596E-08	6.23461E-08	5.56858E-08	4.19838E-08	2.38648E-08	1.35654E-08	7.71096E-09	2.49149E-09
HE	2	6	8.09751E-01	4.48562E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	1.58148E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	1.18566E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	1.10813E-18	1.10812E-18	1.10812E-18	1.10812E-18	1.10812E-18	1.10812E-18	1.10811E-18	1.10811E-18
B	5	12	1.99754E-02	2.18235E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	3.70389E-11	3.70255E-11	3.70165E-11	3.69942E-11	3.69495E-11	3.69049E-11	3.68603E-11	3.67713E-11
F	9	20	1.10023E+01	4.41435E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	6.41322E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	2.98788E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	3.31899E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	3.26143E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	1.33810E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	4.79469E-10	4.11867E-33	1.72752E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	3.83620E-09	6.82551E-13	2.15919E-15	1.21531E-21	3.85001E-34	1.21965E-46	3.86381E-59	0.00000E+00
S	16	37	3.04012E+02	2.95635E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	3.50578E-12	3.50575E-12	3.50574E-12	3.50570E-12	3.50562E-12	3.50554E-12	3.50547E-12	3.50531E-12
AR	18	37	3.02684E+06	1.33362E-08	5.12269E-18	2.70890E-24	5.49456E-40	2.26364E-71	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	5.96065E-10	5.91472E-10	5.88430E-10	5.80893E-10	5.66108E-10	5.51699E-10	5.37656E-10	5.10635E-10
AR	18	41	6.60140E+03	1.57391E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	4.84476E-15	4.84476E-15	4.84476E-15	4.84476E-15	4.84476E-15	4.84476E-15	4.84476E-15	4.84476E-15
K	19	42	4.47192E+04	1.03149E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	1.03443E-09	1.03441E-09	1.03439E-09	1.03434E-09	1.03426E-09	1.03417E-09	1.03408E-09	1.03390E-09
CA	20	45	1.42623E+07	3.18225E-07	3.19523E-09	1.48713E-10	6.94971E-14	1.51773E-20	3.31454E-27	7.23857E-34	3.45233E-47
CA	20	47	3.91608E+05	1.62851E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	4.20458E-08	4.93225E-12	1.18193E-14	3.32259E-21	2.62553E-34	2.07468E-47	1.63942E-60	0.00000E+00
SC	21	47	2.96717E+05	2.67256E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	6.35752E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	2.78294E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	1.07645E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	4.63606E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.87227E-15	1.87609E-16	4.04741E-17	8.74955E-19	4.08883E-22	1.91081E-25	8.92954E-29	1.95011E-35
V	23	52	2.02084E+02	1.22627E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	1.58750E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	1.92089E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	1.83794E-08	2.40907E-20	2.88529E-28	4.52967E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	1.47968E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	1.70334E-18	1.70334E-18	1.70334E-18	1.70334E-18	1.70334E-18	1.70334E-18	1.70333E-18	1.70333E-18
MN	25	54	2.61565E+07	1.95663E-09	1.59198E-10	2.98922E-11	4.56676E-13	1.06589E-16	2.48773E-20	5.80633E-24	3.16300E-31
MN	25	56	9.29152E+03	2.80070E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	2.63967E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	3.24038E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	4.05459E-06	1.82187E-06	1.06880E-06	2.81741E-07	1.95773E-08	1.36036E-09	9.45273E-11	4.56419E-13
FE	26	59	3.89409E+06	4.28863E-08	2.05920E-15	2.72027E-20	1.72551E-32	6.94222E-57	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	3.98949E-24	3.98935E-24	3.98921E-24	3.98894E-24	3.98866E-24	3.98838E-24	3.98783E-24	3.98783E-24
FE	26	61	3.60001E+02	3.92764E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	1.27523E-14	7.79853E-16	1.21049E-16	1.14905E-18	1.03534E-22	9.32888E-27	8.40583E-31	6.82449E-39
CO	27	58	6.13405E+06	5.61177E-12	1.26767E-16	1.01301E-19	1.82865E-27	5.95865E-43	1.94162E-58	6.32678E-74	0.00000E+00
CO	27	60	1.65983E+08	9.73224E-08	6.55410E-08	5.03554E-08	2.60544E-08	6.97505E-09	1.86730E-09	4.99897E-10	3.58273E-11
CO	27	61	5.94007E+03	4.60358E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	1.98583E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	1.07470E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	2.78330E-13	2.78323E-13	2.78318E-13	2.78306E-13	2.78281E-13	2.78257E-13	2.78233E-13	2.78185E-13
NI	28	63	2.90020E+09	3.96863E-11	3.87984E-11	3.82175E-11	3.68031E-11	3.41294E-11	3.16500E-11	2.93506E-11	2.52410E-11
NI	28	65	9.21738E+03	1.60917E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	5.62585E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.60972E+06	2.24893E-15	4.44103E-33	6.99020E-45	2.17285E-74	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	1.28874E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.50096E+06	8.44024E-14	3.93106E-20	2.36201E-24	6.61024E-35	5.17685E-56	4.05423E-77	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	2.45842E-18	2.28299E-18	2.17305E-18	1.92088E-18	1.50874E-18	1.17255E-18	9.16127E-19	5.59248E-19
SR	38	91	3.48315E+04	1.72280E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	7.93229E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.50095E+02	4.03107E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	1.54191E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	5.47267E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	2.12798E-14	5.44765E-20	1.01947E-23	4.88410E-33	1.12096E-51	2.57272E-70	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	6.23569E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	1.30821E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	1.18542E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	3.35333E-17	3.71999E-21	8.58852E-24	2.19973E-30	1.44295E-43	9.46522E-57	6.20884E-70	0.00000E+00
ZR	40	89	2.82249E+05	3.49437E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	1.46762E-15	1.46762E-15	1.46762E-15	1.46762E-15	1.46761E-15	1.46760E-15	1.46759E-15	1.46758E-15
ZR	40	95	5.63534E+06	2.69172E-13	2.35926E-18	1.00295E-21	3.73706E-30	5.18821E-47	7.20286E-64	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	5.63266E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	1.52511E-18	1.52059E-18	1.51758E-18	1.51008E-18	1.49520E-18	1.48047E-18	1.46588E-18	1.43713E-18
NB	41	92	8.80746E+05	5.10235E-14	2.23658E-46	5.99040E-68	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	1.94181E-13	1.94161E-13	1.94148E-13	1.94114E-13	1.94047E-13	1.93979E-13	1.93912E-13	1.93777E-13
NB	41	95	3.02684E+06	6.46078E-15	2.48171E-24	1.31137E-30	2.66187E-46	1.09663E-77	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	1.19316E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	1.14377E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	3.27761E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	2.21176E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	5.84504E-16	5.84369E-16	5.84279E-16	5.84054E-16	5.83604E-16	5.83155E-16	5.82706E-16	5.81810E-16
MO	42	99	2.41515E+05	1.19384E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	6.33783E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	2.58088E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84813E+03	1.45082E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.03134E+14	7.06285E-23	7.06285E-23	7.06285E-23	7.06284E-23	7.06284E-23	7.06283E-23	7.06282E-23	7.06281E-23
PD	46	109	4.83704E+04	1.47471E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34422E+05	5.60826E-16	8.78359E-55	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10389E+09	2.04063E-11	2.00826E-11	1.98697E-11	1.93471E-11	1.83429E-11	1.73908E-11	1.64882E-11	1.48709E-11
AG	47	110	2.15826E+07	2.57600E-09	1.23160E-10	1.62237E-11	1.02178E-13	4.05293E-18	1.60759E-22	6.37653E-27	1.00525E-35
CD	48	109	3.99508E+07	1.29945E-16	2.51420E-17	8.41058E-18	5.44369E-19	2.28047E-21	9.55345E-24	4.00211E-26	7.02350E-31
CD	48	111	2.92221E+03	2.92873E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	8.59551E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22399E+04	2.54843E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	1.42955E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42444E+05	4.00651E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.25400E+03	2.46038E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	4.18643E-17	9.14266E-24	3.31560E-28	2.62595E-39	1.64706E-61	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	4.90923E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.40998E+01	2.08165E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.95931E+03	3.11222E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63955E+02	1.05286E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	1.13763E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.40093E+01	2.28465E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.00998E+01	3.12313E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	117	9.94473E+06	6.78747E-13	9.24554E-16	1.13610E-17	1.90165E-22	5.32772E-32	1.49265E-41	4.18184E-51	3.28247E-70
SN	50	121	9.72156E+04	9.31568E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	1.31825E-11	3.02245E-14	5.25533E-16	2.09514E-20	3.32978E-29	5.29198E-38	8.41049E-47	2.12439E-64
SN	50	125	8.12599E+05	1.72737E-10	1.46403E-45	6.08586E-69	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

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I 53 130	4.44981E+04	1.05887E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	5.36792E-15	1.71264E-77	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	4.44571E-14	4.61612E-65	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	8.36236E-09	3.03661E-09	1.54560E-09	2.80670E-10	9.75884E-12	3.33374E-13	1.13885E-14	1.32004E-17	
EU 63 152	4.17559E+08	9.00412E-08	7.69465E-08	6.92926E-08	5.33253E-08	3.15810E-08	1.87033E-08	1.10767E-08	3.88503E-09	
EU 63 154	2.69812E+08	8.66587E-09	6.79493E-09	5.77787E-09	3.85233E-09	1.71252E-09	7.61282E-10	3.38420E-10	6.66773E-11	
LU 71 174	1.22687E+07	2.72420E-20	1.29514E-22	3.66184E-24	4.92226E-28	8.89388E-36	1.60698E-43	2.90355E-51	9.47929E-67	
LU 71 177	1.38242E+07	1.00295E-17	8.70419E-20	3.67588E-21	1.34725E-24	1.80974E-31	2.43099E-38	3.26549E-45	5.89233E-59	
HF 72 173	8.49053E+04	2.07147E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 175	6.24840E+06	4.38737E-10	8.51774E-15	6.15280E-18	8.62675E-26	1.69698E-41	3.33739E-57	6.56352E-73	0.00000E+00	
HF 72 178	9.78261E+08	1.07298E-18	1.00336E-18	9.59481E-19	8.57989E-19	6.86077E-19	5.48611E-19	4.38688E-19	2.80503E-19	
HF 72 179	1.89384E+10	5.27865E-20	5.26039E-20	5.24825E-20	5.21803E-20	5.15811E-20	5.09887E-20	5.04032E-20	4.92522E-20	
HF 72 180	1.98723E+04	8.60724E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 181	3.66357E+06	2.98508E-09	4.96400E-17	3.23409E-22	3.50397E-35	4.11282E-61	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 182	2.84077E+14	5.25860E-25	5.25860E-25	5.25860E-25	5.25860E-25	5.25860E-25	5.25859E-25	5.25859E-25	5.25858E-25	
TA 73 180	2.93458E+04	9.69792E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TA 73 182	9.89362E+06	4.40171E-09	5.79486E-12	6.96076E-14	1.10078E-18	2.75276E-28	6.88391E-38	1.72148E-47	1.07657E-66	
W 74 181	1.20968E+07	7.19501E-14	3.17024E-16	8.52051E-18	1.00903E-21	1.41506E-29	1.98446E-37	2.78294E-45	5.47327E-61	
W 74 185	6.47801E+06	2.08634E-10	8.31745E-15	9.70640E-18	4.51586E-25	9.77399E-40	2.11548E-54	4.57869E-69	0.00000E+00	
W 74 187	8.39984E+04	4.27593E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 203	4.02525E+06	2.88226E-16	2.39655E-23	4.56544E-28	7.23179E-40	1.81439E-63	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 205	3.11947E+02	2.16811E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 204	1.19282E+08	3.57639E-18	2.06310E-18	1.42967E-18	5.71519E-19	9.13306E-20	1.45949E-20	2.33231E-21	5.95605E-23	
TL 81 206	2.52054E+02	5.14182E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 207	2.86188E+02	4.27785E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 203	1.86782E+05	1.97810E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 205	4.76390E+14	6.23032E-19	6.23031E-19	6.23031E-19	6.23031E-19	6.23031E-19	6.23031E-19	6.23030E-19	6.23030E-19	
PB 82 207	7.95989E-01	1.07780E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TOTAL (CURIES/CC)		3.93471E-05	2.04175E-06	1.25337E-06	4.08955E-07	8.54141E-08	3.79337E-08	2.13789E-08	8.10501E-09	
TOTAL (CURIES)		5.66599E+02	2.94011E+01	1.80486E+01	5.88896E+00	1.22996E+00	5.46246E-01	3.07856E-01	1.16712E-01	

COMPONENT : CONCRETE - AXIAL UP - THIRD 6 INCHES - R4
VOLUME : 1.44000E+07 CC
: ABOVE VOLUME IS FOR THE THIRD 6 INCHES OF CONCRETE IN THE
: AXIAL UP DIRECTION
:
: (INTERVALS 52-54 TOTGUPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	7.25001E-09	6.11986E-09	5.46608E-09	4.12111E-09	2.34255E-09	1.33157E-09	7.56903E-10	2.44563E-10
HE	2	6	8.09751E-01	9.72020E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	1.55245E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	2.56641E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	1.50060E-19	1.50059E-19	1.50059E-19	1.50059E-19	1.50059E-19	1.50058E-19	1.50058E-19	1.50057E-19
B	5	12	1.99754E-02	2.14208E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	3.63819E-12	3.63688E-12	3.63600E-12	3.63380E-12	3.62941E-12	3.62503E-12	3.62065E-12	3.61191E-12
F	9	20	1.10023E+01	1.07398E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	1.49303E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	2.93322E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	7.61331E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	3.24689E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	2.96126E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.06226E-10	9.12491E-34	3.82731E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	3.77989E-10	6.72531E-14	2.12749E-16	1.19747E-22	3.79349E-35	1.20174E-47	3.80709E-60	0.00000E+00
S	16	37	3.04012E+02	6.92078E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	3.42824E-13	3.42822E-13	3.42820E-13	3.42816E-13	3.42809E-13	3.42801E-13	3.42793E-13	3.42778E-13
AR	18	37	3.02684E+06	3.03376E-09	1.16532E-18	6.15774E-25	1.24992E-40	5.14940E-72	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	6.18150E-11	6.13387E-11	6.10232E-11	6.02416E-11	5.87083E-11	5.72140E-11	5.57577E-11	5.29554E-11
AR	18	41	6.60140E+03	3.60512E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	4.75549E-16	4.75549E-16	4.75549E-16	4.75549E-16	4.75549E-16	4.75549E-16	4.75549E-16	4.75549E-16
K	19	42	4.47192E+04	1.01170E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	1.01957E-10	1.01955E-10	1.01953E-10	1.01949E-10	1.01940E-10	1.01931E-10	1.01922E-10	1.01904E-10
CA	20	45	1.42623E+07	3.12639E-08	3.13915E-10	1.46103E-11	6.82772E-15	1.49109E-21	3.25636E-28	7.11152E-35	3.39173E-43
CA	20	47	3.91608E+05	1.60513E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	4.10294E-09	4.81303E-13	1.15336E-15	3.24227E-22	2.55206E-35	2.02453E-48	1.59980E-61	0.00000E+00
SC	21	47	2.96217E+05	5.86756E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	1.52760E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	6.31391E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	2.65852E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48515E+02	4.54910E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	4.62717E-16	4.63660E-17	1.00028E-17	2.16238E-19	1.01052E-22	4.72241E-26	2.20686E-29	4.81953E-36
V	23	52	2.02084E+02	1.20398E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	3.73513E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	4.74556E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	1.78815E-09	2.34381E-21	2.80713E-29	4.40696E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10645E+02	3.38528E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16766E+14	4.20966E-19	4.20966E-19	4.20966E-19	4.20965E-19	4.20965E-19	4.20964E-19	4.20963E-19	4.20962E-19
MN	25	54	2.61565E+07	4.35738E-10	3.54531E-11	6.65694E-12	1.01701E-13	2.37371E-17	5.54014E-21	1.29306E-24	7.04594E-32
MN	25	56	9.29152E+03	2.73936E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01923E+02	6.12976E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	7.97752E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	3.99607E-07	1.79558E-07	1.05338E-07	2.77675E-08	1.92947E-09	1.34073E-10	9.31430E-12	4.49831E-14
FE	26	59	3.89409E+06	4.19483E-09	2.01416E-16	2.66078E-21	1.68778E-33	6.79038E-58	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	9.85392E-25	9.85372E-25	9.85358E-25	9.85324E-25	9.85256E-25	9.85187E-25	9.85119E-25	9.84983E-25
FE	26	61	3.60001E+02	9.70641E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	3.15067E-15	1.92675E-16	2.99072E-17	2.83891E-19	2.55799E-23	2.30485E-27	2.07680E-31	1.68610E-39
CO	27	58	6.13405E+06	1.24076E-12	2.80281E-17	2.23977E-20	4.04313E-28	1.31745E-43	4.29292E-59	1.39885E-74	0.00000E+00
CO	27	60	1.65983E+08	9.48303E-09	6.38627E-09	4.90660E-09	2.53872E-09	6.79644E-10	1.81948E-10	4.87096E-11	3.49099E-12
CO	27	61	5.94007E+03	1.05262E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	4.78158E-14	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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CD 27 64	2.99999E-01	2.65589E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI 28 59	2.52053E+12	2.72974E-14	2.72967E-14	2.72962E-14	2.72950E-14	2.72927E-14	2.72903E-14	2.72879E-14	2.72832E-14	
NI 28 63	2.90020E+09	3.94355E-12	3.85533E-12	3.79761E-12	3.65706E-12	3.39138E-12	3.14500E-12	2.91652E-12	2.50815E-12	
NI 28 65	9.21738E+03	3.67586E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU 29 64	4.62098E+04	5.51777E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB 37 86	1.60972E+06	5.52162E-16	1.09037E-33	1.71625E-45	5.33484E-75	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 87	1.00799E+04	3.13548E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 89	4.50096E+06	1.97011E-14	9.17581E-21	5.51338E-25	1.54295E-35	1.20837E-56	9.46330E-78	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 90	8.86377E+08	5.91552E-19	5.49339E-19	5.22884E-19	4.62187E-19	3.61112E-19	2.82141E-19	2.20440E-19	1.34568E-19	
SR 38 91	3.48315E+04	4.19058E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 92	9.75604E+03	1.95481E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 93	4.50095E+02	9.95162E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 89	1.56998E+01	3.79822E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 90	2.30281E+05	5.37212E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 91	5.09667E+06	5.03196E-15	1.28819E-20	2.41071E-24	1.15493E-33	2.65069E-52	6.08362E-71	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 92	1.27440E+04	1.50572E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 94	1.12200E+03	3.29492E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 96	9.80406E+00	2.92952E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 88	7.20602E+06	7.84449E-18	8.70222E-22	2.00912E-24	5.14586E-31	3.37550E-44	2.21421E-57	1.45244E-70	0.00000E+00	
ZR 40 89	2.82249E+05	8.35715E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 93	4.74758E+13	1.44354E-16	1.44354E-16	1.44354E-16	1.44353E-16	1.44353E-16	1.44352E-16	1.44352E-16	1.44350E-16	
ZR 40 95	5.63534E+06	6.64988E-14	5.82856E-19	2.47779E-22	9.23240E-31	1.28175E-47	1.77947E-64	0.00000E+00	0.00000E+00	
ZR 40 97	6.04840E+04	4.14738E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 91	2.20888E+10	3.75006E-19	3.73894E-19	3.73154E-19	3.71311E-19	3.67652E-19	3.64029E-19	3.60442E-19	3.53374E-19	
NB 41 92	8.80746E+05	1.23290E-14	5.40433E-47	1.44748E-68	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 94	6.30134E+11	1.86206E-14	1.86186E-14	1.86173E-14	1.86141E-14	1.86076E-14	1.86012E-14	1.85947E-14	1.85818E-14	
NB 41 95	3.62684E+06	1.52169E-15	5.84510E-25	3.08863E-31	6.26942E-47	2.58286E-78	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 96	8.28132E+04	2.87203E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 97	4.33217E+03	2.71964E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 98	3.06325E+03	8.01516E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 100	3.99994E+00	5.46312E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 93	2.84077E+11	5.53129E-17	5.53001E-17	5.52916E-17	5.52703E-17	5.52278E-17	5.51853E-17	5.51428E-17	5.50579E-17	
MO 42 99	2.41515E+05	1.10994E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 101	8.76292E+02	5.88617E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 104	2.61565E+02	6.28299E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 106	7.84813E+03	3.44668E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD 46 107	2.05134E+14	1.67649E-23	1.67649E-23	1.67649E-23	1.67649E-23	1.67649E-23	1.67648E-23	1.67648E-23	1.67648E-23	
PD 46 109	4.83704E+04	3.49214E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 106	7.34422E+05	1.38603E-16	2.17079E-55	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 108	4.10389E+09	1.97330E-12	1.94199E-12	1.92140E-12	1.87087E-12	1.77376E-12	1.68170E-12	1.59441E-12	1.43319E-12	
AG 47 110	2.15826E+07	2.35075E-10	1.12390E-11	1.48051E-12	9.32434E-15	3.69853E-19	1.46702E-23	5.81895E-28	9.15519E-37	
CD 48 109	3.99508E+07	3.07561E-17	5.95075E-18	1.99066E-18	1.28844E-19	5.39755E-22	2.26116E-24	9.47242E-27	1.66236E-31	
CD 48 111	2.92221E+03	7.03193E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 115	1.92541E+05	2.10932E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 117	1.22390E+04	6.29808E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 119	5.97541E+02	3.53302E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 111	2.42444E+05	9.83838E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 112	1.25400E+03	5.82280E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 114	4.27863E+06	1.00117E-17	2.18644E-24	7.92915E-29	6.27988E-40	3.93890E-62	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 115	1.61497E+04	1.16231E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 116	1.40998E+01	5.05230E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 117	6.95931E+03	7.40653E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 118	2.63955E+02	2.57951E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 119	1.26027E+02	2.73135E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 120	4.48093E+01	5.64339E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 122	1.08998E+01	7.71856E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 113	9.94475E+06	6.16079E-14	8.39192E-17	1.03120E-18	1.72608E-23	4.83582E-33	1.35484E-42	3.79574E-52	2.97941E-71	
SN 50 121	9.72156E+04	9.05582E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 123	1.07967E+07	1.28295E-12	2.94152E-15	5.11462E-17	2.03904E-21	3.24062E-30	5.15029E-39	8.18530E-48	2.06750E-65	
SN 50 125	8.12599E+05	1.64458E-11	1.39386E-46	5.79418E-70	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
I 53 130	4.44981E+04	2.53351E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	1.24930E-15	3.98590E-78	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58999E+05	1.09872E-14	1.14083E-65	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	7.73643E-10	2.80932E-10	1.42991E-10	2.64287E-11	9.02838E-13	3.08420E-14	1.05360E-15	1.22956E-18	
EU 63 152	4.17559E+08	8.85563E-09	7.56776E-09	6.81500E-09	5.24459E-09	3.10602E-09	1.83949E-09	1.08940E-09	3.82096E-10	
EU 63 154	2.69812E+08	8.37980E-10	6.57063E-10	5.58713E-10	3.72516E-10	1.65598E-10	7.36151E-11	3.27269E-11	6.46696E-12	
LU 71 174	1.22687E+07	6.10558E-21	2.90271E-23	8.20707E-25	1.10320E-28	1.99333E-36	3.60163E-44	6.50756E-52	2.12454E-67	
LU 71 177	1.38242E+07	2.36938E-18	2.05630E-20	8.68399E-22	3.18278E-25	4.27537E-32	5.74301E-39	7.71446E-46	1.39202E-59	
HF 72 173	8.49653E+04	5.11949E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 175	6.04840E+06	4.20961E-11	8.17262E-16	5.90350E-19	8.27913E-27	1.62822E-42	3.20217E-58	6.29758E-74	0.00000E+00	
HF 72 178	9.78261E+08	2.57034E-19	2.40358E-19	2.29845E-19	2.05533E-19	1.64351E-19	1.31421E-19	1.05088E-19	6.71950E-20	
HF 72 179	1.89384E+10	1.25497E-20	1.25063E-20	1.24775E-20	1.24056E-20	1.22631E-20	1.21223E-20	1.19831E-20	1.17095E-20	
HF 72 180	1.98723E+04	2.07054E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 181	3.36357E+06	2.68475E-10	4.46458E-18	2.90871E-23	3.15144E-36	3.69904E-62	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 182	2.84077E+14	1.27308E-25	1.27308E-25	1.27308E-25	1.27307E-25	1.27307E-25	1.27307E-25	1.27307E-25	1.27307E-25	1.27307E-25
TA 73 180	2.93458E+04	2.39370E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA 73 182	9.89362E+06	3.90974E-10	5.14717E-13	6.18276E-15	9.77750E-20	2.44509E-29	6.11451E-39	1.52907E-48	9.56244E-68	
W 74 181	1.20968E+07	1.77812E-14	7.83469E-17	2.10569E-18	2.49365E-22	3.49707E-30	4.90424E-38	6.87755E-46	1.35262E-61	
W 74 185	6.87801E+06	1.98148E-11	7.89935E-16	9.21847E-19	4.28886E-26	9.28267E-41	2.00914E-55	4.34853E-70	0.00000E+00	
W 74 187	8.59984E+04	3.93203E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 203	4.02525E+06	7.00689E-17	5.82609E-24	1.10988E-28	1.75807E-40	4.41085E-64	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 205	3.11947E+02	5.32625E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 204	1.19282E+08	8.58849E-19	4.95441E-19	3.43328E-19	1.37247E-19	2.19325E-20	3.50488E-21	5.60091E-22	1.43051E-23	
TL 81 206	2.52054E+02	1.25313E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 207	2.86168E+02	1.03556E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 203	1.86782E+05	2.66438E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 205	4.76398E+14	1.53904E-19	1.53904E-19	1.53904E-19	1.53904E-19	1.53904E-19	1.53904E-19	1.53904E-19	1.53904E-19	1.53904E-19
PB 82 207	7.95989E-01	2.65801E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)		3.86125E-06	2.01104E-07	1.23422E-07	4.02427E-08	8.39401E-09	3.72871E-09	2.10326E-09	7.99463E-10	
TOTAL (CURIES)		5.56020E+01	2.89590E+00	1.77728E+00	5.79495E-01	1.20874E-01	5.36934E-02	3.02869E-02	1.15123E-02	

FORM (A)129-12 3546

COMPONENT : CONCRETE - AXIAL UP - FOURTH 6 INCHES - R4
VOLUME : 1.44000E+07 CC
: ABOVE VOLUME IS FOR THE FOURTH 6 INCHES OF CONCRETE IN THE
: AXIAL UP DIRECTION
:
: (INTERVALS 55-57 TOTGUPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	7.76235E-10	6.55233E-10	5.85236E-10	4.41234E-10	2.50809E-10	1.42567E-10	8.10391E-11	2.61846E-11
HE	2	6	8.09751E-01	2.15368E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	1.66266E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	5.69237E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	2.48739E-20	2.48739E-20	2.48739E-20	2.48738E-20	2.48738E-20	2.48737E-20	2.48736E-20	2.48735E-20
B	5	12	1.99754E-02	2.29420E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	3.90079E-13	3.89938E-13	3.89843E-13	3.89608E-13	3.89137E-13	3.88667E-13	3.88198E-13	3.87261E-13
F	9	20	1.10023E+01	2.62849E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	3.52563E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	3.14737E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	1.77465E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	3.58051E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	6.64745E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	2.39099E-11	2.05388E-34	8.61467E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	4.05743E-11	7.21912E-15	2.28371E-17	1.28540E-23	4.07203E-36	1.28999E-48	4.08663E-61	0.00000E+00
S	16	37	3.04012E+02	1.64167E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	3.69516E-14	3.69514E-14	3.69512E-14	3.69508E-14	3.69500E-14	3.69491E-14	3.69483E-14	3.69467E-14
AR	18	37	3.02684E+06	7.01171E-10	2.69333E-19	1.42320E-25	2.88885E-41	1.19014E-72	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	7.31758E-12	7.26120E-12	7.22386E-12	7.13133E-12	6.94981E-12	6.77292E-12	6.60053E-12	6.26880E-12
AR	18	41	6.60140E+03	8.40024E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	5.09428E-17	5.09428E-17	5.09428E-17	5.09428E-17	5.09428E-17	5.09428E-17	5.09428E-17	5.09428E-17
K	19	42	4.47192E+04	1.08601E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	1.09097E-11	1.09095E-11	1.09093E-11	1.09088E-11	1.09078E-11	1.09069E-11	1.09059E-11	1.09041E-11
CA	20	45	1.42623E+07	3.35853E-09	3.37223E-11	1.56951E-12	7.33468E-16	1.60180E-22	3.49815E-29	7.63955E-36	3.64357E-49
CA	20	47	3.91608E+05	1.71759E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	4.40636E-10	5.16895E-14	1.23866E-16	3.48204E-23	2.75153E-36	2.17424E-49	1.71810E-62	0.00000E+00
SC	21	47	2.96217E+05	1.31870E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	3.70216E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	1.45893E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	6.58659E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	4.87865E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.14706E-16	1.14940E-17	2.47966E-18	5.36046E-20	2.50504E-23	1.17067E-26	5.47073E-30	1.19474E-36
V	23	52	2.02084E+02	1.29044E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	8.89809E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	1.17605E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	1.94364E-10	2.54761E-22	3.05121E-30	4.79016E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	7.87868E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	1.04356E-19	1.04356E-19	1.04356E-19	1.04355E-19	1.04355E-19	1.04355E-19	1.04355E-19	1.04354E-19
MN	25	54	2.61565E+07	9.86710E-11	8.02821E-12	1.50743E-12	2.30298E-14	5.37518E-18	1.25454E-21	2.92808E-25	1.59507E-32
MN	25	56	9.29152E+03	2.94379E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.44488E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.97130E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	4.27716E-08	1.92188E-08	1.12748E-08	2.97207E-09	2.06520E-10	1.43504E-11	9.97164E-13	4.81474E-15
FE	26	59	3.89409E+06	4.51137E-10	2.16615E-17	2.86155E-22	1.81513E-34	7.30278E-59	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	2.44156E-25	2.44151E-25	2.44148E-25	2.44139E-25	2.44122E-25	2.44105E-25	2.44089E-25	2.44055E-25
FE	26	61	3.60001E+02	2.40610E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	7.80841E-16	4.77514E-17	7.41201E-18	7.03577E-20	6.33955E-24	5.71219E-28	5.14700E-32	4.17872E-40
CO	27	58	6.13405E+06	2.79711E-13	6.31853E-18	5.04923E-21	9.11466E-29	2.97001E-44	9.67777E-60	3.15350E-75	0.00000E+00
CO	27	60	1.65983E+08	1.02223E-09	6.88415E-10	5.28912E-10	2.73664E-10	7.32630E-11	1.96133E-11	5.25071E-12	3.76315E-13
CO	27	61	5.94007E+03	2.44762E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	1.16045E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	6.58356E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	2.92385E-15	2.92377E-15	2.92372E-15	2.92359E-15	2.92334E-15	2.92308E-15	2.92283E-15	2.92232E-15
NI	28	63	2.90020E+09	4.30417E-13	4.20787E-13	4.14487E-13	3.99148E-13	3.70150E-13	3.43259E-13	3.18322E-13	2.73751E-13
NI	28	65	9.21738E+03	8.54752E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	5.92219E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.60972E+06	1.36134E-16	2.68828E-34	4.23137E-46	1.31529E-75	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	7.67248E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.50096E+06	4.66452E-15	2.17251E-21	1.30537E-25	3.65316E-36	2.86100E-57	2.24058E-78	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	1.43510E-19	1.33269E-19	1.26851E-19	1.12126E-19	8.76053E-20	6.84470E-20	5.34785E-20	3.26459E-20
SR	38	91	3.48315E+04	1.02523E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	4.83448E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.50095E+02	2.46476E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	9.39126E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	5.75483E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	1.20411E-15	3.08254E-21	5.76867E-25	2.76366E-34	6.34290E-53	1.45577E-71	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	3.66357E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	7.88736E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	7.26184E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	1.85966E-18	2.06300E-22	4.76294E-25	1.21991E-31	8.00216E-45	5.24913E-58	3.44324E-71	0.00000E+00
ZR	40	89	2.82249E+05	2.01798E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	1.55874E-17	1.55874E-17	1.55874E-17	1.55873E-17	1.55873E-17	1.55872E-17	1.55871E-17	1.55870E-17
ZR	40	95	5.63534E+06	1.64798E-14	1.44444E-19	6.14047E-23	2.28798E-31	3.17643E-48	4.40989E-65	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	5.81484E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	9.25709E-20	9.22963E-20	9.21137E-20	9.16587E-20	9.07556E-20	8.98613E-20	8.89758E-20	8.72309E-20
NB	41	92	8.80746E+05	3.00218E-15	1.31598E-47	3.52470E-69	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	2.06756E-15	2.06734E-15	2.06720E-15	2.06684E-15	2.06612E-15	2.06541E-15	2.06469E-15	2.06326E-15
NB	41	95	3.02684E+06	3.62906E-16	1.39399E-25	7.36666E-32	1.49519E-47	6.15985E-79	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	6.96991E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	6.53716E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	1.96958E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	1.35366E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	9.58556E-18	9.58334E-18	9.58187E-18	9.57818E-18	9.57081E-18	9.56344E-18	9.55608E-18	9.54137E-18
MO	42	99	2.41515E+05	1.36972E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	7.04139E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	1.53844E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84813E+03	8.27235E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.05134E+14	4.02473E-24	4.02473E-24	4.02473E-24	4.02472E-24	4.02472E-24	4.02472E-24	4.02471E-24	4.02470E-24
PD	46	109	4.83704E+04	8.36771E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34422E+05	3.43592E-17	5.38131E-56	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10389E+09	2.13835E-13	2.10443E-13	2.08212E-13	2.02736E-13	1.92213E-13	1.82256E-13	1.72777E-13	1.55506E-13
AG	47	110	2.15826E+07	2.61693E-11	1.25115E-12	1.64813E-13	1.03800E-15	4.11727E-20	1.63312E-24	6.47777E-29	1.01917E-37
CD	48	109	3.99508E+07	7.36582E-13	1.42515E-18	4.76746E-19	3.08571E-20	1.29266E-22	5.41529E-25	2.26856E-27	3.98121E-32
CD	48	111	2.92221E+03	1.70318E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	5.19852E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22399E+04	1.56124E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	8.75822E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42444E+05	2.42592E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.25400E+03	1.39431E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	2.41751E-18	5.27956E-25	1.91464E-29	1.51639E-40	9.51121E-63	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	2.78414E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.40998E+01	1.23400E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.95931E+03	1.78155E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63955E+02	6.34857E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	6.61533E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.40893E+01	1.39837E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.00998E+01	1.91340E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	113	9.94473E+06	1.05254E-14	1.43372E-17	1.76176E-19	2.94891E-24	8.26175E-34	2.31467E-43	6.48483E-53	5.09017E-72
SN	50	121	9.72156E+04	1.00538E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	1.42618E-13	3.26992E-16	5.68562E-18	2.26668E-22	3.60242E-31	5.72528E-40	9.09912E-49	2.29835E-66
SN	50	125	8.12599E+05	1.81521E-12	1.53847E-47	6.39531E-71	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

I 53 130	4.449A1E+04	6.11174E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	2.95168E-16	9.41738E-79	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	2.77368E-15	2.82808E-66	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	8.57720E-11	3.11463E-11	1.58531E-11	2.93009E-12	1.00095E-13	3.41938E-15	1.16810E-16	1.36319E-19	
EU 63 152	4.17559E+08	9.47554E-10	8.09751E-10	7.29206E-10	5.61172E-10	3.32345E-10	1.96825E-10	1.16566E-10	4.08844E-11	
EU 63 154	2.69812E+08	9.04005E-11	7.98833E-11	6.82735E-11	4.81867E-11	1.78646E-11	7.94153E-12	3.52033E-12	6.97650E-13	
LU 71 174	1.22687E+07	1.39754E-21	6.64417E-24	1.87856E-25	2.52517E-29	4.56265E-37	8.24397E-45	1.48955E-52	4.86297E-68	
LU 71 177	1.38242E+07	5.66715E-19	4.91830E-21	2.07706E-22	7.61265E-26	1.02259E-32	1.37363E-39	1.84516E-46	3.32946E-60	
HF 72 173	8.49653E+04	1.26910E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 175	6.04840E+06	4.53809E-18	6.81034E-17	6.36416E-20	8.92516E-28	1.75528E-43	3.45204E-59	6.78899E-75	0.00000E+00	
HF 72 178	7.78261E+08	4.21545E-20	5.81219E-20	5.55880E-20	4.97009E-20	3.97425E-20	3.17794E-20	2.54119E-20	1.62487E-20	
HF 72 179	1.09384E+10	3.01658E-21	3.00614E-21	2.99921E-21	2.98194E-21	2.94769E-21	2.91384E-21	2.88038E-21	2.81461E-21	
HF 72 180	1.48723E+04	5.02276E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 181	3.60357E+06	2.95144E-11	4.90806E-19	3.19764E-24	3.46449E-37	4.06548E-63	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 182	2.80077E+14	3.10358E-26	3.10358E-26	3.10358E-26	3.10357E-26	3.10357E-26	3.10357E-26	3.10357E-26	3.10356E-26	
TA 73 180	2.98458E+04	5.92763E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TA 73 182	9.89362E+06	4.44574E-11	5.85282E-14	7.03038E-16	1.11179E-20	2.78030E-30	6.95278E-40	1.73870E-49	1.08734E-68	
W 74 181	1.21368E+07	4.40775E-15	1.94213E-17	5.21977E-19	6.18148E-23	8.66883E-31	1.21571E-38	1.70487E-46	3.35300E-62	
W 74 185	6.47801E+06	2.21534E-12	8.83167E-17	1.03065E-19	4.79504E-27	1.03782E-41	2.24627E-56	4.86176E-71	0.00000E+00	
W 74 187	8.59984E+04	4.36276E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 203	4.03525E+06	1.71355E-17	1.42478E-24	2.71422E-29	4.29939E-41	1.07868E-64	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 205	3.31947E+02	1.31380E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 204	1.19382E+08	2.08096E-19	1.20044E-19	8.31871E-20	3.32544E-20	5.31417E-21	8.49220E-22	1.35708E-22	3.46559E-24	
TL 81 206	2.52054E+02	3.07094E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 207	2.86188E+02	2.52403E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 203	1.86782E+05	6.60476E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 205	4.76390E+14	3.81373E-20	3.81373E-20	3.81373E-20	3.81373E-20	3.81373E-20	3.81372E-20	3.81372E-20	3.81372E-20	
PB 82 207	7.95989E-01	6.57744E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TOTAL (CURIES/CC)	4.16247E-07	2.15366E-08	1.32167E-08	4.31035E-09	8.99752E-10	3.99937E-10	2.25811E-10	8.61788E-11		
TOTAL (CURIES)	5.99395E+00	3.10127E-01	1.90320E-01	6.20691E-02	1.29564E-02	5.75909E-03	3.25169E-03	1.24097E-03		

COMPONENT : CONCRETE - AXIAL UP - FIFTH 6 INCHES - R4
VOLUME : 1.44000E+07 CC
: ABOVE VOLUME IS FOR THE FIFTH 6 INCHES OF CONCRETE IN THE
: AXIAL UP DIRECTION
:
: (INTERVALS 58-60 TOTGUPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	1.06002E-10	8.94780E-11	7.99192E-11	6.02544E-11	3.42503E-11	1.94688E-11	1.10666E-11	3.57574E-12
HE	2	6	8.09751E-01	4.86311E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	2.27152E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	1.28549E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	4.94756E-21	4.94756E-21	4.94755E-21	4.94755E-21	4.94754E-21	4.94752E-21	4.94751E-21	4.94748E-21
B	5	12	1.99754E-02	3.13443E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	5.33662E-14	5.33469E-14	5.33340E-14	5.33018E-14	5.32374E-14	5.31731E-14	5.31089E-14	5.29806E-14
F	9	20	1.10023E+01	6.45896E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	8.41147E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	4.31130E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	4.18775E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	5.08517E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	1.51148E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	5.45606E-12	4.68680E-35	1.96581E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	5.55506E-12	9.88376E-16	3.12664E-18	1.75985E-24	5.57505E-37	1.76613E-49	5.59503E-62	0.00000E+00
S	16	37	3.04012E+02	3.93117E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77041E+12	5.10042E-15	5.10039E-15	5.10036E-15	5.10031E-15	5.10020E-15	5.10008E-15	5.09997E-15	5.09974E-15
AR	18	37	3.02684E+06	1.64120E-10	6.30414E-20	3.33120E-26	6.76178E-42	2.78571E-73	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	1.12121E-12	1.11258E-12	1.10685E-12	1.09268E-12	1.06486E-12	1.03776E-12	1.01135E-12	9.60517E-13
AR	18	41	6.60140E+03	1.98251E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	6.96205E-18	6.96205E-18	6.96205E-18	6.96205E-18	6.96205E-18	6.96205E-18	6.96205E-18	6.96205E-18
K	19	42	4.47192E+04	1.48870E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	1.48677E-12	1.48673E-12	1.48670E-12	1.48664E-12	1.48651E-12	1.48638E-12	1.48625E-12	1.48599E-12
CA	20	45	1.42623E+07	4.60697E-10	4.62577E-12	2.15293E-13	1.00612E-16	2.19723E-23	4.79849E-30	1.04793E-36	4.99797E-50
CA	20	47	3.91608E+05	2.34081E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	6.05476E-11	7.10264E-15	1.70203E-17	4.78466E-24	3.78087E-37	2.98762E-50	2.36084E-63	0.00000E+00
SC	21	47	2.96217E+05	3.01342E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	9.02549E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	3.41877E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	1.63538E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	6.67907E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	2.84943E-17	2.85524E-18	6.15980E-19	1.33160E-20	6.22284E-24	2.90808E-27	1.35900E-30	2.96789E-37
V	23	52	2.02084E+02	1.76489E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	2.13863E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	2.92068E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	2.71958E-11	3.56467E-23	4.26933E-31	6.70250E-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	1.65719E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	2.59232E-20	2.59232E-20	2.59232E-20	2.59231E-20	2.59231E-20	2.59230E-20	2.59230E-20	2.59229E-20
MN	25	54	2.61565E+07	2.26606E-11	1.84374E-12	3.46195E-13	5.28897E-15	1.23445E-18	2.88115E-22	6.72457E-26	3.66321E-33
MN	25	56	9.29152E+03	4.04312E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	3.44324E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	4.88343E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	5.83141E-09	2.62026E-09	1.53718E-09	4.05207E-10	2.81566E-11	1.95651E-12	1.35952E-13	6.56433E-16
FE	26	59	3.89409E+06	6.20203E-11	2.97793E-18	3.93394E-23	2.49536E-35	1.00395E-59	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	6.06261E-26	6.06248E-26	6.06240E-26	6.06219E-26	6.06177E-26	6.06135E-26	6.06093E-26	6.06009E-26
FE	26	61	3.60001E+02	5.97688E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	1.93928E-16	1.18594E-17	1.84083E-18	1.74739E-20	1.57448E-24	1.41867E-28	1.27830E-32	1.05782E-40
CO	27	58	6.13405E+06	6.40284E-14	1.44637E-18	1.15581E-21	2.08643E-29	6.79862E-45	2.21533E-60	7.21864E-76	0.00000E+00
CO	27	60	1.65983E+08	1.41096E-10	9.50196E-11	7.30040E-11	3.77729E-11	1.01172E-11	2.70716E-12	7.24737E-13	5.19415E-14
CO	27	61	5.94007E+03	5.76529E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	2.83153E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

CO 27 64	2.99999E-01	1.63538E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI 28 59	2.52053E+12	3.99610E-16	3.99600E-16	3.99593E-16	3.99576E-16	3.99541E-16	3.99506E-16	3.99471E-16	3.99402E-16	
NI 28 63	2.90020E+09	6.01663E-14	5.88203E-14	5.79397E-14	5.57954E-14	5.17419E-14	4.79830E-14	4.44971E-14	3.82666E-14	
NI 28 65	9.21738E+03	2.01448E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU 29 64	4.62098E+04	8.11471E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB 37 86	1.60972E+06	3.36574E-17	6.64644E-35	1.04615E-46	3.25189E-76	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 87	1.00799E+04	1.88468E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 89	4.50096E+06	1.11596E-15	5.19762E-22	3.12304E-26	8.74001E-37	6.84488E-58	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 90	8.86377E+08	3.50116E-20	3.25132E-20	3.09474E-20	2.73550E-20	2.13728E-20	1.66988E-20	1.30470E-20	7.96453E-21	
SR 38 91	3.48315E+04	2.51794E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 92	9.75604E+03	1.19849E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 93	4.50095E+02	6.11800E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 89	1.56998E+01	2.32799E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 90	2.30281E+05	7.86467E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 91	5.09667E+06	2.90598E-16	7.43935E-22	1.39220E-25	6.66976E-35	1.53079E-53	3.51332E-72	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 92	1.27440E+04	8.95805E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 94	1.12200E+03	1.94701E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 96	9.80406E+00	1.80387E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 88	7.20602E+06	4.45086E-19	4.93752E-23	1.13995E-25	2.91969E-32	1.91521E-45	1.25631E-58	8.24096E-72	0.00000E+00	0.00000E+00
ZR 40 89	2.82249E+05	4.90557E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 93	4.74758E+13	2.15419E-18	2.15419E-18	2.15419E-18	2.15418E-18	2.15417E-18	2.15416E-18	2.15415E-18	2.15413E-18	
ZR 40 95	5.63534E+06	4.09272E-15	3.58723E-20	1.52497E-23	5.68215E-32	7.88860E-49	1.09518E-65	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 97	6.04840E+04	1.09494E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 91	2.20888E+10	2.29118E-20	2.28438E-20	2.27986E-20	2.26860E-20	2.24624E-20	2.22411E-20	2.20219E-20	2.15901E-20	
NB 41 92	8.80746E+05	7.35089E-16	3.22221E-48	8.63829E-70	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 94	6.30134E+11	2.97356E-16	2.97325E-16	2.97304E-16	2.97253E-16	2.97150E-16	2.97046E-16	2.96943E-16	2.96737E-16	
NB 41 95	3.02684E+06	8.73381E-17	3.35482E-26	1.77274E-32	3.59836E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 96	8.28132E+04	1.70100E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 97	4.33217E+03	1.58337E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 98	3.06025E+03	4.85563E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 100	3.09994E+00	3.36131E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 93	2.84077E+11	2.00821E-18	2.00774E-18	2.00743E-18	2.00666E-18	2.00512E-18	2.00357E-18	2.00203E-18	1.99895E-18	
MO 42 99	2.41515E+05	2.21955E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 101	8.76292E+02	1.10541E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 104	2.61565E+02	3.78178E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 106	7.84813E+03	1.99954E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD 46 107	2.05134E+14	9.74022E-25	9.74022E-25	9.74022E-25	9.74022E-25	9.74020E-25	9.74019E-25	9.74018E-25	9.74016E-25	
PD 46 109	4.83704E+04	2.02205E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 106	7.34422E+05	8.53527E-18	1.33679E-56	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 108	4.10389E+09	2.97891E-14	2.93166E-14	2.90057E-14	2.82429E-14	2.67770E-14	2.53871E-14	2.40694E-14	2.16356E-14	
AG 47 110	2.15826E+07	3.83764E-12	1.83479E-13	2.41696E-14	1.52221E-16	6.03791E-21	2.39494E-25	9.49954E-30	1.49460E-38	
CD 48 109	3.99508E+07	1.77894E-18	3.44192E-19	1.15140E-19	7.45236E-21	3.12194E-23	1.30786E-25	5.47885E-28	9.61511E-33	
CD 48 111	2.92221E+03	4.15029E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 115	1.92541E+05	1.28492E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 117	1.22399E+04	3.87825E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 119	5.97541E+02	2.17565E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 111	2.42444E+05	5.99843E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 112	1.25400E+03	3.36703E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 114	4.27869E+06	5.87717E-19	1.28350E-25	4.65464E-30	3.68648E-41	2.31225E-63	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 115	1.61497E+04	6.72531E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 116	1.40998E+01	3.02686E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 117	6.95931E+03	4.31782E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 118	2.63955E+02	1.56725E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 119	1.26027E+02	1.61198E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 120	4.40093E+01	3.47243E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 122	1.00998E+01	4.75312E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 113	9.94473E+06	2.19169E-15	2.98541E-18	3.66849E-20	6.14049E-25	1.72033E-34	4.81980E-44	1.35033E-53	1.05992E-72	
SN 50 121	9.72156E+04	1.44172E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 123	1.07967E+07	2.05404E-14	4.70946E-17	8.18566E-19	3.26457E-25	5.18834E-32	8.24577E-41	1.31049E-49	3.31014E-67	
SN 50 125	8.12599E+05	2.59517E-13	2.19952E-48	9.14325E-72	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
I 53 130	4.44981E+04	1.48245E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	7.05235E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	6.76597E-16	7.02531E-67	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	1.24613E-11	4.52506E-12	2.30320E-12	4.25695E-13	1.45423E-14	4.96782E-16	1.69707E-17	1.98049E-20	
EU 63 152	4.17559E+08	1.29209E-10	1.10418E-10	9.94351E-11	7.65219E-11	4.53188E-11	2.68393E-11	1.58951E-11	5.57503E-12	
EU 63 154	2.69812E+08	1.25256E-11	9.82140E-12	8.35133E-12	5.56816E-12	2.47527E-12	1.10036E-12	4.89153E-13	9.66645E-14	
LU 71 174	1.22687E+07	3.25215E-22	1.54614E-24	4.37152E-26	5.87621E-30	1.06175E-37	1.91842E-45	3.46627E-53	1.13164E-68	
LU 71 177	1.38242E+07	1.36759E-19	1.18688E-21	5.01233E-23	1.83708E-26	2.46771E-33	3.31482E-40	4.45273E-47	8.03460E-61	
HF 72 173	8.49653E+04	3.15261E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 175	6.04840E+06	6.29912E-13	1.22292E-17	8.83381E-21	1.23886E-28	2.43642E-44	4.79162E-60	9.42349E-76	0.00000E+00	
HF 72 178	9.78261E+08	1.51291E-20	1.41475E-20	1.35288E-20	1.20977E-20	9.67374E-21	7.73545E-21	6.18553E-21	3.95512E-21	
HF 72 179	1.89384E+10	7.30785E-22	7.28257E-22	7.26577E-22	7.22393E-22	7.14097E-22	7.05897E-22	6.97790E-22	6.81856E-22	
HF 72 180	1.98723E+04	1.22551E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 181	3.66357E+06	4.28479E-12	7.12535E-20	4.64222E-25	5.02962E-38	5.90357E-64	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 182	2.84077E+14	7.60208E-27	7.60208E-27	7.60208E-27	7.60208E-27	7.60207E-27	7.60206E-27	7.60206E-27	7.60205E-27	
TA 73 180	2.93458E+04	1.47115E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA 73 182	9.89362E+06	6.72773E-12	8.85706E-15	1.06391E-16	1.68247E-21	4.20741E-31	1.05216E-40	2.63117E-50	1.64547E-69	
W 74 181	1.20968E+07	1.09491E-15	4.82435E-18	1.29662E-19	1.53551E-23	2.15338E-31	3.01988E-39	4.23498E-47	8.32902E-63	
W 74 185	6.47801E+06	3.22058E-13	1.28391E-17	1.49831E-20	6.97084E-28	1.50875E-42	3.26553E-57	7.06782E-72	0.00000E+00	
W 74 187	8.59984E+04	6.35852E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 203	4.02525E+06	4.20723E-18	3.49823E-25	6.66417E-30	1.05562E-41	2.64846E-65	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 205	3.11947E+02	3.24955E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 204	1.19282E+08	5.07356E-20	2.92677E-20	2.02818E-20	8.10773E-21	1.29564E-21	2.07048E-22	3.30868E-23	8.44943E-25	
TL 81 206	2.52054E+02	7.55369E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 207	2.86188E+02	6.18051E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 203	1.86782E+05	1.64068E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 205	4.76390E+14	9.47056E-21	9.47056E-21	9.47055E-21	9.47055E-21	9.47055E-21	9.47054E-21	9.47054E-21	9.47053E-21	
PB 82 207	7.95989E-01	1.63142E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)		5.73929E-08	2.93894E-09	1.80352E-09	5.88478E-10	1.23017E-10	5.47290E-11	3.09366E-11	1.18652E-11	
TOTAL (CURIES)		8.26458E-01	4.23207E-02	2.59707E-02	8.47408E-03	1.77144E-03	7.88098E-04	4.45487E-04	1.70859E-04	

COMPONENT : CONCRETE - AXIAL UP - SIXTH 6 INCHES - R4
, VOLUME : 1.44000E+07 CC
: ABOVE VOLUME IS FOR THE SIXTH 6 INCHES OF CONCRETE IN THE
: AXIAL UP DIRECTION
:
: (INTERVALS 61-63 TOTGUPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	1.83214E-11	1.54654E-11	1.38132E-11	1.04144E-11	5.91982E-12	3.36499E-12	1.91275E-12	6.18031E-13
HE	2	6	0.09751E-01	1.11622E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	3.92778E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	5.00064E-16	2.94394E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	1.07973E-21	1.07973E-21	1.07973E-21	1.07973E-21	1.07972E-21	1.07972E-21	1.07972E-21	1.07971E-21
B	5	12	1.99754E-02	5.41938E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	9.23711E-15	9.23377E-15	9.23153E-15	9.22596E-15	9.21481E-15	9.20368E-15	9.19256E-15	9.17037E-15
F	9	20	1.10023E+01	1.59196E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	2.02279E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	7.47215E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	9.97949E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	9.09987E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	3.47800E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.26047E-12	1.08276E-35	4.54146E-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	9.62146E-13	1.71188E-16	5.41539E-19	3.04809E-25	9.65609E-38	3.05897E-50	9.69669E-63	0.00000E+00
S	16	37	3.04012E+02	9.48221E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	8.89804E-16	8.89798E-16	8.89794E-16	8.89784E-16	8.89764E-16	8.89745E-16	8.89725E-16	8.89685E-16
AR	18	37	3.02684E+06	3.88181E-11	1.49108E-20	7.87907E-27	1.59932E-42	6.58886E-74	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	2.11342E-13	2.09714E-13	2.08635E-13	2.05963E-13	2.00721E-13	1.95612E-13	1.90633E-13	1.81052E-13
AR	18	41	6.60140E+03	4.72598E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	1.20398E-18	1.20398E-18	1.20398E-18	1.20398E-18	1.20398E-18	1.20398E-18	1.20398E-18	1.20398E-18
K	19	42	4.47192E+04	2.58061E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	2.56486E-13	2.56480E-13	2.56475E-13	2.56464E-13	2.56442E-13	2.56420E-13	2.56397E-13	2.56353E-13
CA	20	45	1.42623E+07	7.98928E-11	8.02188E-13	3.73355E-14	1.74478E-17	3.81037E-24	8.32140E-31	1.81730E-37	8.66734E-51
CA	20	47	3.91608E+05	4.03836E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	1.05237E-11	1.23449E-15	2.95827E-18	8.31611E-25	6.57144E-38	5.19272E-51	4.10332E-64	0.00000E+00
SC	21	47	2.96217E+05	6.97226E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	2.21018E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	8.10181E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	4.06706E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.15691E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	7.08943E-18	7.10388E-19	1.53256E-19	3.31305E-21	1.54825E-24	7.23534E-28	3.38120E-31	7.38415E-38
V	23	52	2.02084E+02	3.05460E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	5.17504E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	7.26498E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.59843E+06	4.80117E-12	6.29309E-24	7.53710E-32	1.18326E-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	4.42195E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	6.44970E-21	6.44970E-21	6.44970E-21	6.44970E-21	6.44969E-21	6.44967E-21	6.44966E-21	6.44964E-21
MN	25	54	2.61565E+07	5.26861E-12	4.28672E-13	8.04906E-14	1.22969E-15	2.87822E-19	6.69871E-23	1.56347E-26	8.51700E-34
MN	25	56	9.29152E+03	7.02057E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	8.27518E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.21204E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.00633E-09	4.52181E-10	2.65273E-10	6.99271E-11	4.85901E-12	3.37637E-13	2.34613E-14	1.13281E-16
FE	26	59	3.89409E+06	1.07774E-11	5.17478E-19	6.83605E-24	4.33623E-36	1.74458E-60	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	1.50782E-26	1.50779E-26	1.50777E-26	1.50772E-26	1.50761E-26	1.50751E-26	1.50740E-26	1.50720E-26
FE	26	61	3.60001E+02	1.48702E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.54838E+07	4.82403E-17	2.95008E-18	4.57914E-19	4.34669E-21	3.91657E-25	3.52899E-29	3.17981E-33	2.58161E-41
CO	27	58	6.13405E+06	3.35244E-12	3.25744E-19	2.67898E-22	4.83599E-30	1.57580E-45	5.13476E-61	1.67316E-76	6.00000E+00
CO	27	60	1.65983E+08	2.45954E-11	1.65636E-11	1.27259E-11	6.58447E-12	1.76274E-12	4.71905E-13	1.26334E-13	9.05429E-15
CO	27	61	5.94007E+03	1.37208E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	6.93717E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	4.06871E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	6.91174E-17	6.91156E-17	6.91144E-17	6.91114E-17	6.91054E-17	6.90995E-17	6.90934E-17	6.90815E-17
NI	28	63	2.90020E+09	1.05990E-14	1.03618E-14	1.02067E-14	9.82897E-15	9.11491E-15	8.45272E-15	7.83865E-15	6.74108E-15
NI	28	65	9.21738E+03	4.79828E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	1.40632E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.60972E+06	8.33893E-18	1.64671E-35	2.59193E-47	8.05682E-77	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	4.64301E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.50096E+06	2.69144E-16	1.25354E-22	7.53204E-27	2.10789E-37	1.65081E-58	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	8.57799E-21	7.96586E-21	7.58224E-21	6.70209E-21	5.23642E-21	4.09128E-21	3.19657E-21	1.95134E-21
SR	38	91	3.48315E+04	6.20211E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	2.97647E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.50095E+02	1.52112E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	5.78201E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	1.36010E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	7.05890E-17	1.80709E-22	3.38178E-26	1.62015E-35	3.71842E-54	8.53418E-73	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	2.19858E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	4.81731E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	4.48788E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	1.07309E-19	1.19042E-23	2.74858E-26	7.03929E-33	4.61752E-46	3.02893E-59	1.98687E-72	0.00000E+00
ZR	40	89	2.82249E+05	1.19857E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	3.76158E-19	3.76157E-19	3.76157E-19	3.76156E-19	3.76154E-19	3.76153E-19	3.76151E-19	3.76147E-19
ZR	40	95	5.63534E+06	1.01804E-15	8.92306E-21	3.79330E-24	1.41341E-32	1.96225E-49	2.72422E-66	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	2.30942E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	5.68203E-21	5.66517E-21	5.65396E-21	5.62604E-21	5.57060E-21	5.51570E-21	5.46136E-21	5.35425E-21
NB	41	92	8.80746E+05	1.80745E-16	7.92282E-49	2.12203E-70	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	5.34508E-17	5.34453E-17	5.34416E-17	5.34323E-17	5.34137E-17	5.33952E-17	5.33767E-17	5.33396E-17
NB	41	95	3.02684E+06	2.11662E-17	8.13035E-27	4.29620E-33	8.72057E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	5.28132E+04	4.16891E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	3.85733E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	1.28000E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	8.36000E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	4.37971E-19	4.37869E-19	4.37802E-19	4.37633E-19	4.37297E-19	4.36960E-19	4.36624E-19	4.35952E-19
MO	42	99	2.41515E+05	4.31640E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	2.10983E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	9.32366E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84813E+03	4.85930E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.05134E+14	2.37167E-25	2.37167E-25	2.37167E-25	2.37167E-25	2.37167E-25	2.37166E-25	2.37166E-25	2.37166E-25
PD	46	109	4.83704E+04	4.91778E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34422E+05	2.12358E-18	3.32593E-57	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10389E+09	5.22877E-15	5.14582E-15	5.09126E-15	4.95737E-15	4.70065E-15	4.45610E-15	4.22480E-15	3.79761E-15
AG	47	110	2.15826E+07	6.98344E-13	3.33882E-14	4.39819E-15	2.77001E-17	1.09873E-21	4.35813E-26	1.72865E-30	2.71976E-39
CD	48	109	3.99508E+07	4.32391E-19	8.36597E-20	2.79861E-20	1.81138E-21	7.58824E-24	3.17890E-26	1.33170E-28	2.33706E-33
CD	48	111	2.92221E+03	1.01598E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	3.18287E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22399E+04	9.64899E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	5.41305E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42444E+05	1.48631E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.25400E+03	8.18340E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	1.43611E-19	3.13628E-26	1.13758E-30	9.00803E-42	5.65806E-66	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	1.63503E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.40998E+01	7.44842E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.95931E+03	1.05248E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63955E+02	3.87793E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	3.94599E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.40093E+01	8.63658E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.00998E+01	1.18258E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	113	9.94473E+06	4.77538E-16	6.50478E-19	7.99310E-21	1.33792E-25	3.74836E-35	1.05017E-44	2.96217E-54	2.30941E-73
SN	50	121	9.72156E+04	2.58441E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	3.70236E-15	6.48869E-18	1.47598E-19	5.88430E-24	9.35185E-33	1.48628E-41	2.36213E-50	5.96644E-68
SN	50	125	8.12599E+05	4.64653E-14	3.93815E-49	1.63706E-72	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

I 53 130	4.44981E+04	3.61078E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56618E+05	1.69966E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	1.68338E-19	1.74791E-67	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	2.25338E-12	8.18266E-13	4.16487E-13	7.69784E-14	2.62968E-15	8.98331E-17	3.06881E-18	3.58132E-21	
EU 63 152	4.17559E+08	2.23045E-11	1.90608E-11	1.71648E-11	1.32095E-11	7.82307E-12	4.63308E-12	2.74386E-12	9.62378E-13	
EU 63 154	2.69812E+08	2.19086E-12	1.71786E-12	1.46073E-12	9.73927E-13	4.32950E-13	1.92464E-13	8.55578E-14	1.69076E-14	
LU 71 174	1.22687E+07	7.66898E-23	3.64598E-25	1.03086E-26	1.38568E-30	2.66375E-38	4.52387E-46	8.17390E-54	2.66855E-69	
LU 71 177	1.38242E+07	3.32267E-20	2.88362E-22	1.21779E-23	4.46332E-27	5.09590E-34	8.05362E-41	1.08183E-47	1.95207E-61	
HF 72 173	8.49653E+04	7.84371E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 175	6.04840E+06	1.10425E-13	2.14382E-18	1.54859E-21	2.17176E-29	4.27112E-45	8.39985E-61	1.65197E-76	0.00000E+00	
HF 72 178	9.78261E+08	3.70090E-21	3.46078E-21	3.30943E-21	2.95437E-21	2.36641E-21	1.89226E-21	1.51311E-21	9.67507E-22	
HF 72 179	1.89384E+10	1.78090E-22	1.77474E-22	1.77064E-22	1.76045E-22	1.74023E-22	1.72025E-22	1.70049E-22	1.66166E-22	
HF 72 180	1.98723E+04	3.00323E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 181	3.66357E+06	7.79100E-13	1.29560E-20	8.44092E-26	9.14532E-39	1.07344E-64	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 182	2.84977E+14	1.86876E-27	1.86876E-27	1.86876E-27	1.86876E-27	1.86876E-27	1.86876E-27	1.86876E-27	1.86875E-27	
TA 73 180	2.93458E+04	3.65729E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA 73 182	9.89362E+06	1.25055E-12	1.64635E-15	1.97758E-17	3.12737E-22	7.82072E-32	1.95575E-41	4.89081E-51	3.05859E-70	
W 74 181	1.20968E+07	2.72408E-16	1.20027E-18	3.22592E-20	3.82028E-24	5.35750E-32	7.51330E-40	1.05364E-47	2.07222E-63	
W 74 185	6.47801E+06	5.83065E-14	2.32803E-18	2.71679E-21	1.26397E-28	2.73571E-43	5.92117E-58	1.28156E-72	0.00000E+00	
W 74 187	8.59984E+04	1.15178E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 203	4.02525E+06	1.05611E-18	8.61502E-26	1.64117E-30	2.59966E-42	6.52231E-66	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 205	3.11947E+02	8.05402E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 204	1.19282E+08	1.24279E-20	7.16925E-21	4.96810E-21	1.98602E-21	3.17373E-22	5.07171E-23	8.10476E-24	2.06972E-25	
TL 81 206	2.52054E+02	1.86321E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 207	2.86188E+02	1.51869E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 203	1.86782E+05	4.08198E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 205	4.76390E+14	2.35558E-21	2.35558E-21	2.35558E-21	2.35558E-21	2.35558E-21	2.35557E-21	2.35557E-21	2.35557E-21	
PB 82 207	7.95989E-01	4.05349E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)	1.00018E-08	5.07565E-10	3.11466E-10	1.01675E-10	2.12814E-11	9.47531E-12	5.36126E-12	2.06461E-12		
TOTAL (CURIES)	1.44026E-01	7.30894E-03	4.48511E-03	1.46412E-03	3.06452E-04	1.36445E-04	7.72022E-05	2.97303E-05		

COMPONENT : CONCRETE - AXIAL UP - SEVENTH 6 INCHES - R4
VOLUME : 1.44000E+07 CC
: ABOVE VOLUME IS FOR THE SEVENTH 6 INCHES OF CONCRETE IN THE
: AXIAL UP DIRECTION
:
: \INTERVALS 64-66 TOTGUPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	3.76923E-12	3.18167E-12	2.84178E-12	2.14254E-12	1.21788E-12	6.92276E-13	3.93509E-13	1.27147E-13
HE	2	6	8.09751E-01	2.59738E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	8.08283E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	6.82641E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	2.47267E-22	2.47267E-22	2.47267E-22	2.47267E-22	2.47266E-22	2.47265E-22	2.47264E-22	2.47263E-22
B	5	12	1.99754E-02	1.11512E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	1.90179E-15	1.90110E-15	1.90064E-15	1.89949E-15	1.89720E-15	1.89491E-15	1.89262E-15	1.88805E-15
F	9	20	1.10023E+01	3.93323E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	4.89493E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	1.53964E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	2.39690E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	1.91206E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+05	8.09155E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	2.94432E-13	2.52919E-36	1.06083E-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	1.98210E-13	3.52662E-17	1.11561E-19	6.27930E-23	1.98923E-38	6.30171E-51	1.99636E-63	0.00000E+00
S	16	37	3.04012E+02	2.30027E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	1.83854E-16	1.83852E-16	1.83852E-16	1.83849E-16	1.83845E-16	1.83841E-16	1.83837E-16	1.83829E-16
AR	18	37	3.02684E+06	9.26209E-12	3.55774E-21	1.87996E-27	3.81602E-43	1.57212E-74	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	4.54015E-14	4.50517E-14	4.48200E-14	4.42459E-14	4.31197E-14	4.20222E-14	4.09526E-14	3.88944E-14
AR	18	41	6.60140E+03	1.13554E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	2.47767E-19	2.47767E-19	2.47767E-19	2.47767E-19	2.47767E-19	2.47767E-19	2.47767E-19	2.47767E-19
K	19	42	4.47192E+04	5.31633E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	5.27344E-14	5.27330E-14	5.27321E-14	5.27298E-14	5.27252E-14	5.27207E-14	5.27161E-14	5.27070E-14
CA	20	45	1.42623E+07	1.64643E-11	1.65315E-13	7.69410E-15	3.59564E-18	7.85241E-25	1.71488E-31	3.74569E-38	1.78617E-51
CA	20	47	3.91608E+05	8.30316E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	2.17016E-12	2.54574E-16	6.10047E-19	1.71493E-25	1.35515E-38	1.07083E-51	8.46177E-65	0.00000E+00
SC	21	47	2.96217E+05	1.63136E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	5.43138E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	1.93722E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	1.01276E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	2.38283E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.76606E-18	1.76966E-19	3.81780E-20	8.25319E-22	3.85687E-25	1.80241E-28	8.42296E-32	1.83948E-38
V	23	52	2.02084E+02	6.28946E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	1.25894E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	1.80941E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	9.98099E-13	1.30825E-24	1.56686E-32	2.45985E-52	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	1.06123E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	1.60669E-21	1.60669E-21	1.60669E-21	1.60669E-21	1.60669E-21	1.60668E-21	1.60668E-21	1.60668E-21
MN	25	54	2.61565E+07	1.23808E-12	1.00734E-13	1.89146E-14	2.88966E-16	6.74452E-20	1.57414E-23	3.67401E-27	2.00142E-34
MN	25	56	9.29152E+03	1.44717E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	2.00202E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	3.01279E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	2.06938E-10	9.29847E-11	5.45497E-11	1.43795E-11	9.99187E-13	6.94303E-14	4.82449E-15	2.32947E-17
FE	26	59	3.89409E+06	2.22219E-12	1.06699E-19	1.40953E-24	8.94090E-37	3.59717E-61	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	3.75493E-27	3.75485E-27	3.75480E-27	3.75467E-27	3.75441E-27	3.75415E-27	3.75389E-27	3.75337E-27
FE	26	61	3.60001E+02	3.70424E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	1.20151E-17	7.34772E-19	1.14052E-19	1.08262E-21	9.75494E-26	8.78960E-30	7.91991E-34	6.42998E-42
CO	27	58	6.13405E+06	3.47813E-15	7.85693E-20	6.27858E-23	1.13338E-30	3.69313E-46	1.20341E-61	3.92129E-77	0.00000E+00
CO	27	60	1.65983E+08	5.07815E-12	3.41984E-12	2.62748E-12	1.35948E-12	3.63948E-13	9.74330E-14	2.60839E-14	1.86942E-15
CO	27	61	5.94007E+03	3.29244E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	1.70510E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

CO 27 64	2.99999E-01	1.01353E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NI 28 59	2.52053E+12	1.42234E-17	1.42230E-17	1.42228E-17	1.42222E-17	1.42209E-17	1.42197E-17	1.42185E-17	1.42160E-17	
NI 28 63	2.90020E+09	2.20266E-15	2.15358E-15	2.12114E-15	2.04264E-15	1.89425E-15	1.75663E-15	1.62982E-15	1.40092E-15	
NI 28 65	9.21738E+03	1.15248E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CU 29 64	4.62098E+04	2.89651E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
RB 37 86	1.60972E+06	2.06954E-18	4.08679E-36	6.43262E-48	1.99955E-77	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 87	1.00799E+04	1.14652E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 89	4.50096E+06	6.53202E-17	3.04230E-23	1.82800E-27	5.11575E-38	4.00644E-59	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 90	8.86377E+08	2.10870E-21	1.95822E-21	1.86392E-21	1.64755E-21	1.28725E-21	1.00575E-21	7.85801E-22	4.79691E-22	
SR 38 91	3.48315E+04	1.53129E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 92	9.75604E+03	7.40279E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 93	4.50095E+02	3.78698E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 89	1.56998E+01	1.43828E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 90	2.30281E+05	2.79895E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 91	5.09667E+06	1.72336E-17	4.41183E-23	8.25630E-27	3.95543E-36	9.07816E-55	2.08354E-73	0.00000E+00	0.00000E+00	
Y 39 92	1.27440E+04	5.41209E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 94	1.12200E+03	1.19411E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 96	9.80406E+00	1.11795E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
ZR 40 88	7.20602E+06	2.60217E-20	2.88669E-24	6.66464E-27	1.70698E-33	1.11972E-46	7.34495E-60	4.81803E-73	0.00000E+00	
ZR 40 89	2.82249E+05	2.94010E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
ZR 40 93	4.74758E+13	7.78688E-20	7.78687E-20	7.78686E-20	7.78685E-20	7.78681E-20	7.78677E-20	7.78674E-20	7.78666E-20	
ZR 40 95	5.63534E+06	2.53556E-16	2.22239E-21	9.44766E-25	3.52026E-33	4.88722E-50	6.78500E-67	0.00000E+00	0.00000E+00	
ZR 40 97	6.04848E+04	5.11646E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 91	2.20888E+10	1.61138E-21	1.40719E-21	1.40441E-21	1.39747E-21	1.38370E-21	1.37006E-21	1.35656E-21	1.32996E-21	
NB 41 92	8.80746E+05	4.45879E-17	1.95448E-49	5.23483E-71	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 94	6.30134E+11	1.11797E-17	1.11785E-17	1.11777E-17	1.11758E-17	1.11719E-17	1.11680E-17	1.11642E-17	1.11564E-17	
NB 41 95	3.02684E+06	5.15767E-18	1.98116E-27	1.04687E-33	2.12498E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 96	8.28132E+04	1.02516E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 97	4.33217E+03	9.43956E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 98	3.06025E+03	2.97150E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 100	3.09994E+00	2.08192E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
MO 42 93	2.84077E+11	9.91202E-20	9.91021E-20	9.90869E-20	9.90487E-20	9.89725E-20	9.88963E-20	9.88202E-20	9.86681E-20	
MO 42 99	2.41515E+05	9.30934E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
MO 42 101	8.76292E+02	4.51259E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
RH 45 104	2.61565E+02	2.30411E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
RH 45 106	7.84813E+03	1.18598E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PD 46 107	2.05134E+14	5.80225E-26	5.80225E-26	5.80225E-26	5.80224E-26	5.80224E-26	5.80223E-26	5.80223E-26	5.80221E-26	
PD 46 109	4.83704E+04	1.20201E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
AG 47 106	7.34422E+05	5.29010E-19	8.28530E-58	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
AG 47 108	4.10389E+09	1.08313E-15	1.06595E-15	1.05464E-15	1.02691E-15	9.73606E-16	9.23071E-16	8.75159E-16	7.86666E-16	
AG 47 110	2.15826E+07	1.47197E-13	7.03756E-15	9.27051E-16	5.83863E-18	2.31591E-22	9.18606E-27	3.64366E-31	5.73271E-40	
CD 48 109	3.99508E+07	1.05621E-19	2.04357E-20	6.83620E-21	4.42469E-22	1.85359E-24	7.76514E-27	3.25296E-29	5.70877E-34	
CD 48 111	2.92221E+03	2.49607E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CD 48 115	1.92541E+05	7.89807E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CD 48 117	1.22399E+04	2.40364E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CD 48 119	5.92541E+02	1.34845E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 111	2.42444E+05	3.68903E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 112	1.25400E+03	1.99894E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 114	4.27869E+06	3.52370E-20	7.69425E-27	2.79033E-31	2.20994E-42	1.38613E-64	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 115	1.61497E+04	3.99499E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 116	1.40998E+01	1.83762E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 117	6.95931E+03	2.57690E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 118	2.63055E+02	9.61316E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 119	1.26027E+02	9.69419E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 120	4.40093E+01	2.15085E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 122	1.00998E+01	2.64596E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SN 50 113	9.94473E+06	1.07868E-16	1.46932E-19	1.80551E-21	3.02215E-26	8.46694E-36	2.37216E-45	6.64589E-55	5.21659E-74	
SN 50 121	9.72156E+04	5.40314E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SN 50 123	1.07967E+07	7.78546E-16	1.78503E-18	3.10376E-20	1.23737E-24	1.96654E-33	3.12540E-42	4.96717E-51	1.25465E-68	
SN 50 125	8.12599E+05	9.70024E-15	8.22139E-50	3.41757E-73	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
I 53 130	4.44981E+04	8.82475E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
XE 54 133	4.56018E+05	4.12401E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CS 55 132	5.58990E+05	4.19351E-17	4.35424E-68	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CS 55 134	6.47801E+07	4.73494E-13	1.71939E-13	8.75149E-14	1.61752E-14	5.52565E-16	1.88763E-17	6.44838E-19	7.52531E-22	
EU 63 152	4.17559E+08	4.58651E-12	3.91949E-12	3.62962E-12	2.71628E-12	1.60867E-12	9.52706E-13	5.64224E-13	1.97895E-13	
EU 63 154	2.69812E+08	4.52888E-13	3.55111E-13	3.01958E-13	2.01527E-13	8.94981E-14	3.97855E-14	1.76863E-14	3.49509E-15	
LU 71 174	1.22687E+07	1.82753E-23	8.68841E-26	2.45655E-27	3.30210E-31	5.96645E-39	1.07804E-46	1.94785E-54	6.35918E-70	
LU 71 177	1.38242E+07	8.11505E-21	7.04273E-23	2.97423E-24	1.09009E-27	1.46430E-34	1.96696E-41	2.64217E-48	4.76760E-62	
HF 72 173	8.49653E+04	1.95396E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 175	6.04840E+06	2.28363E-14	4.43348E-19	1.20253E-22	4.49126E-30	8.83279E-46	1.73711E-61	3.41631E-77	0.00000E+00	
HF 72 178	9.78261E+08	9.08825E-22	8.49861E-22	8.12692E-22	7.26728E-22	5.81116E-22	4.64680E-22	3.71574E-22	2.37589E-22	
HF 72 179	1.89384E+10	4.36002E-23	4.34494E-23	4.33491E-23	4.30995E-23	4.26046E-23	4.21153E-23	4.16317E-23	4.06810E-23	
HF 72 180	1.98723E+04	7.38498E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 181	3.66357E+06	1.63172E-13	2.71345E-21	1.76784E-26	1.91536E-39	2.24818E-65	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 182	2.84077E+14	4.60686E-28	4.60686E-28	4.60686E-28	4.60686E-28	4.60686E-28	4.60686E-28	4.60685E-28	4.60684E-28	
TA 73 180	2.93458E+04	9.10422E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TA 73 182	9.89362E+06	2.65913E-13	3.50075E-16	4.20509E-18	6.64998E-23	1.66298E-32	4.15867E-42	1.03997E-51	6.50371E-71	
W 74 181	1.20968E+07	6.78586E-17	2.98996E-19	8.03598E-21	9.51654E-25	1.33459E-32	1.87161E-40	2.62469E-48	5.16203E-64	
W 74 185	6.47801E+06	1.22624E-14	4.88853E-19	5.70487E-22	2.65416E-29	5.74459E-44	1.24336E-58	2.69109E-73	0.00000E+00	
W 74 187	8.59984E+04	2.42359E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 203	4.02525E+06	2.55778E-19	2.12674E-26	4.05147E-31	6.41763E-43	1.61013E-66	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 205	3.11947E+02	1.99951E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 204	1.19282E+08	3.05541E-21	1.76250E-21	1.22141E-21	4.88265E-22	7.80263E-23	1.24689E-23	1.99256E-24	5.08843E-26	
TL 81 206	2.52054E+02	4.60620E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 207	2.86188E+02	3.74217E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 203	1.86782E+05	1.01685E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 205	4.76390E+14	5.86645E-22	5.86645E-22	5.86645E-22	5.86644E-22	5.86644E-22	5.86644E-22	5.86644E-22	5.86643E-22	
PB 82 207	7.95989E-01	1.00856E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TOTAL (CURIES/CC)		2.06685E-09	1.04410E-10	6.40683E-11	2.09177E-11	4.38055E-12	1.95117E-12	1.10460E-12	4.26316E-13	
TOTAL (CURIES)		2.97626E-02	1.50350E-03	9.22584E-04	3.01215E-04	6.30799E-05	2.80969E-05	1.59063E-05	6.13895E-06	

COMPONENT : CONCRETE - AXIAL UP - EIGHTH 6 INCHES - R4
VOLUME : 1.44200E+07 CC
: ABOVE VOLUME IS FOR THE EIGHTH 6 INCHES OF CONCRETE IN THE
: AXIAL UP DIRECTION
:
: (INTERVALS 67-69 TOTGUPR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	8.22921E-13	6.94641E-13	6.20434E-13	4.67771E-13	2.65894E-13	1.51142E-13	8.59131E-14	2.77594E-14
HE	2	6	8.09751E-01	6.11299E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	1.76509E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	8.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	5.76502E-23	5.76501E-23	5.76501E-23	5.76500E-23	5.76499E-23	5.76497E-23	5.76495E-23	5.76492E-23
B	5	12	1.99754E-02	2.43472E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	4.15391E-16	4.15241E-16	4.15140E-16	4.14889E-16	4.14388E-16	4.13888E-16	4.13388E-16	4.12390E-16
F	9	20	1.10023E+01	9.73725E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.71710E+01	1.19049E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.44721E+04	3.36524E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.66153E+02	5.79376E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	4.24073E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	1.90123E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	6.94476E-14	5.96561E-37	2.50218E-52	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	4.33135E-14	7.70648E-18	2.43788E-20	1.37218E-26	4.34693E-39	1.37707E-51	4.36251E-64	0.00000E+00
S	16	37	3.04012E+02	5.60603E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	4.02681E-17	4.02678E-17	4.02677E-17	4.02672E-17	4.02663E-17	4.02654E-17	4.02645E-17	4.02627E-17
AR	18	37	3.02684E+06	2.22604E-12	8.55063E-22	4.51828E-28	9.17135E-44	3.77840E-75	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	1.01908E-14	1.01123E-14	1.00603E-14	9.93144E-15	9.67865E-15	9.43230E-15	9.19222E-15	8.73024E-15
AR	18	41	6.60140E+03	2.74575E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	5.40980E-20	5.40980E-20	5.40980E-20	5.40980E-20	5.40980E-20	5.40980E-20	5.40980E-20	5.40980E-20
K	19	42	4.47192E+04	1.16140E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	1.15077E-14	1.15074E-14	1.15072E-14	1.15067E-14	1.15057E-14	1.15047E-14	1.15037E-14	1.15017E-14
CA	20	45	1.42623E+07	3.59714E-12	3.61182E-14	1.68102E-15	7.85588E-19	1.71560E-25	3.74668E-32	8.18232E-39	3.90244E-52
CA	20	47	3.91608E+05	1.81194E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	4.74666E-13	5.56815E-17	1.33432E-19	3.75096E-26	2.96403E-39	2.34216E-52	1.85079E-65	0.00000E+00
SC	21	47	2.96217E+05	3.85247E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	1.33854E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	4.66550E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	2.52463E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	5.20630E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	4.40401E-19	4.41298E-20	9.52040E-21	2.05809E-22	9.61784E-26	4.49465E-29	2.10043E-32	4.58709E-39
V	23	52	2.02084E+02	1.37398E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	3.07579E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	4.51129E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	2.19582E-13	2.87815E-25	3.44710E-33	5.41167E-53	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	2.56315E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	4.00660E-22	4.00660E-22	4.00660E-22	4.00659E-22	4.00659E-22	4.00658E-22	4.00657E-22	4.00656E-22
MN	25	54	2.61565E+07	2.93610E-13	2.38891E-14	4.48559E-15	6.85284E-17	1.59946E-20	3.73307E-24	8.71293E-28	4.74636E-35
MN	25	56	9.29152E+03	3.16278E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	4.86926E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	7.49839E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	4.51614E-11	2.02926E-11	1.19047E-11	3.13813E-12	2.18059E-13	1.51522E-14	1.05288E-15	5.08375E-18
FE	26	59	3.89409E+06	4.85730E-13	2.33225E-20	3.08097E-25	1.95431E-37	7.86273E-62	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	9.36088E-28	9.36055E-28	9.36023E-28	9.35958E-28	9.35893E-28	9.35828E-28	9.35699E-28	9.35699E-28
FE	26	61	3.60001E+02	9.23704E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.54838E+07	2.99574E-18	1.83201E-19	2.84366E-20	2.69931E-22	2.43221E-26	2.19152E-30	1.97468E-34	1.60319E-42
CO	27	58	6.13405E+06	8.22758E-16	1.85857E-20	1.48521E-23	2.68104E-31	8.73616E-47	2.84668E-62	9.27568E-78	0.00000E+00
CO	27	60	1.65983E+08	1.11065E-12	7.47962E-13	5.74662E-13	2.97336E-13	7.96001E-14	2.13098E-14	5.70488E-15	4.08865E-16
CO	27	61	5.94007E+03	7.95330E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	4.20216E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	2.52738E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	3.10586E-18	3.10578E-18	3.10572E-18	3.10559E-18	3.10532E-18	3.10505E-18	3.10478E-18	3.10424E-18
NI	28	63	2.90020E+09	4.84138E-16	4.73307E-16	4.66220E-16	4.48966E-16	4.16349E-16	3.86102E-16	3.58052E-16	3.07918E-16
NI	28	65	9.21738E+03	2.78656E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	6.52748E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.60972E+06	5.14350E-19	1.01570E-36	1.59872E-48	4.96952E-78	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	2.83672E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.50096E+06	1.59325E-17	7.42057E-24	4.45872E-28	1.24780E-38	9.77223E-60	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	5.19705E-22	4.82702E-22	4.59457E-22	4.06122E-22	3.17308E-22	2.47917E-22	1.93761E-22	1.18244E-22
SR	38	91	3.48315E+04	3.78822E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	1.84337E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.50895E+02	9.43841E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56098E+01	3.58224E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	6.11151E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	1.22442E-18	1.08146E-23	2.02384E-27	9.69581E-37	2.22530E-55	5.10731E-74	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	1.33553E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	2.96455E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	2.78776E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20663E+06	6.33959E-21	7.03277E-25	1.62369E-27	4.15867E-34	2.72794E-47	1.78943E-60	1.17380E-73	0.00000E+00
ZR	40	89	2.82249E+05	7.23508E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	1.70709E-20	1.70709E-20	1.70709E-20	1.70708E-20	1.70708E-20	1.70707E-20	1.70706E-20	1.70704E-20
ZR	40	95	5.63534E+06	6.32179E-17	5.54099E-22	2.35554E-25	8.77689E-34	1.21851E-50	1.69167E-67	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	1.15611E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	3.51045E-22	3.50003E-22	3.49311E-22	3.47585E-22	3.44160E-22	3.40769E-22	3.37411E-22	3.30794E-22
NB	41	92	8.80746E+05	1.10282E-17	4.83413E-50	1.29476E-71	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	2.45984E-18	2.45959E-18	2.45941E-18	2.45899E-18	2.45813E-18	2.45728E-18	2.45643E-18	2.45472E-18
NB	41	95	3.02684E+06	1.26228E-18	4.84866E-28	2.56211E-34	5.20065E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	2.52780E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	2.31837E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	7.37043E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09996E+00	5.19020E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	2.24099E-20	2.24047E-20	2.24013E-20	2.23927E-20	2.23754E-20	2.23582E-20	2.23410E-20	2.23066E-20
MO	42	99	2.61515E+05	2.07961E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	1.00453E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	5.70518E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84813E+03	2.90476E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.05134E+14	1.42487E-26	1.42487E-26	1.42487E-26	1.42487E-26	1.42487E-26	1.42487E-26	1.42487E-26	1.42486E-26
PD	46	109	4.83704E+04	2.94962E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34422E+05	1.31919E-19	2.06609E-58	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10389E+09	2.37149E-16	2.33387E-16	2.30912E-16	2.24840E-16	2.13169E-16	2.02105E-16	1.91614E-16	1.72239E-16
AG	47	110	2.15826E+07	3.23781E-14	1.54801E-15	2.03918E-16	1.28429E-18	5.09417E-23	2.02061E-27	8.01474E-32	1.26099E-40
CD	48	109	3.99508E+07	2.59025E-20	5.01165E-21	1.67651E-21	1.08511E-22	4.54575E-25	1.90433E-27	7.97756E-30	1.40002E-34
CD	48	111	2.92221E+03	6.15020E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	1.96273E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22399E+04	5.99388E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	3.36263E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42444E+05	9.16918E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.25480E+03	4.98230E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	8.67120E-21	1.89369E-27	6.86748E-32	5.43905E-43	3.41161E-65	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	9.80025E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.40998E+01	4.54335E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.95931E+03	6.33180E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63955E+02	2.38674E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	2.38853E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.40093E+01	5.56215E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.00998E+01	7.34630E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	113	9.94473E+06	2.43775E-17	3.32058E-20	4.08634E-22	6.82987E-27	1.91347E-36	5.36091E-46	1.50193E-55	1.17891E-74
SN	50	121	9.72156E+04	1.18819E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	1.72131E-16	3.94658E-19	6.86219E-21	2.73574E-25	4.34789E-34	6.91005E-43	1.09821E-51	2.77393E-69
SN	50	125	8.12599E+05	2.13291E-15	1.80774E-50	7.51463E-74	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

I 53 130	4.44981E+04	2.16305E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	1.00598E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	1.04573E-17	1.08581E-68	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	1.04085E-13	3.77962E-14	1.92378E-14	3.55568E-15	1.21466E-16	4.14944E-18	1.41750E-19	1.65423E-22	
EU 63 152	4.17559E+08	1.00105E-12	8.55470E-13	7.70377E-13	5.92856E-13	3.51109E-13	2.07938E-13	1.23148E-13	4.31927E-14	
EU 63 154	2.69812E+08	9.91317E-14	7.77295E-14	6.60950E-14	4.40681E-14	1.95900E-14	8.70656E-15	3.87131E-15	7.65032E-16	
LU 71 176	1.22687E+07	4.39149E-24	2.08780E-26	5.90300E-28	7.93484E-32	1.43372E-39	2.59050E-47	4.68062E-55	1.52880E-70	
LU 71 177	1.38242E+07	1.99019E-21	1.72770E-23	7.29420E-25	2.67340E-28	3.59114E-35	4.82390E-42	6.47983E-49	1.16924E-62	
HF 72 174	8.49653E+04	4.87257E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 176	6.04840E+06	5.00352E-15	9.71393E-20	7.01687E-23	9.84053E-31	1.93530E-46	3.80608E-62	7.48527E-78	0.00000E+00	
HF 72 178	9.78261E+08	2.23872E-22	2.09347E-22	2.00191E-22	1.79016E-22	1.43147E-22	1.14465E-22	9.15302E-23	5.85257E-23	
HF 72 179	1.89384E+10	1.07134E-23	1.06764E-23	1.06517E-23	1.05904E-23	1.04688E-23	1.03486E-23	1.02297E-23	9.99612E-24	
HF 72 180	1.98723E+04	1.82104E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 181	3.66357E+06	3.60506E-14	5.99500E-22	3.90579E-27	4.23174E-40	4.96704E-66	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 182	2.84077E+14	1.13833E-28	1.13833E-28	1.13833E-28	1.13833E-28	1.13833E-28	1.13833E-28	1.13833E-28	1.13833E-28	1.13833E-28
TA 73 180	2.93458E+04	2.26886E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA 73 182	9.89362E+06	5.86963E-14	7.72738E-17	9.28208E-19	1.46788E-23	3.67077E-33	9.17962E-43	2.29558E-52	1.43559E-71	
W 74 181	1.20968E+07	1.69215E-17	7.45589E-20	2.00389E-21	2.37309E-25	3.32799E-33	4.66714E-41	6.54504E-49	1.28723E-64	
W 74 185	6.47801E+06	2.70576E-15	1.07867E-19	1.25880E-22	5.85653E-30	1.26757E-44	2.74353E-59	5.93801E-74	0.00000E+00	
W 74 187	8.59984E+04	5.32609E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 203	4.02525E+06	6.32708E-20	5.26085E-27	1.00220E-31	1.58751E-43	3.98291E-67	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 205	3.11947E+02	4.97091E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 204	1.19282E+08	7.53380E-22	4.34600E-22	3.01166E-22	1.20393E-22	1.92391E-23	3.07447E-24	4.91311E-25	1.25467E-26	
TL 81 206	2.52054E+02	1.14088E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 207	2.86188E+02	9.24237E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 203	1.86782E+05	2.53569E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 205	4.76390E+14	1.46256E-22	1.46256E-22	1.46256E-22	1.46256E-22	1.46256E-22	1.46256E-22	1.46256E-22	1.46256E-22	1.46256E-22
PB 82 207	7.95989E+01	2.51232E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)	4.52592E-10	2.27907E-11	1.39846E-11	4.56636E-12	9.56646E-13	4.26239E-13	2.41394E-13	9.33015E-14		
TOTAL (CURIES)	6.51732E-03	3.28185E-04	2.01379E-04	6.57556E-05	1.37757E-05	6.13784E-06	3.47608E-06	1.34354E-06		

COMPONENT : CONCRETE - AXIAL DOWN - FIRST 6 INCHES - R4
VOLUME : 9.67700E+06 CC
: ABOVE VOLUME IS FOR THE FIRST 6 INCHES OF CONCRETE IN THE
: AXIAL DOWN DIRECTION
:
: (INTERVALS 56-58 TOTGDNR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	2.43667E-08	2.05684E-08	1.83711E-08	1.38507E-08	7.87313E-09	4.47531E-09	2.54389E-09	8.21957E-10
HE	2	6	8.09751E-01	3.96202E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	5.21651E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	1.03635E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	2.79764E-19	2.79764E-19	2.79764E-19	2.79764E-19	2.79763E-19	2.79762E-19	2.79761E-19	2.79760E-19
B	5	12	1.99754E-02	7.19708E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	1.22126E-11	1.22082E-11	1.22052E-11	1.21978E-11	1.21831E-11	1.21684E-11	1.21537E-11	1.21244E-11
F	9	20	1.10023E+01	3.65310E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	5.67986E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	9.84087E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	2.93121E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.58629E+02	1.06730E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	1.15610E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	4.15802E-11	3.57177E-34	1.49813E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	1.26854E-09	2.25702E-13	7.13989E-16	4.01873E-22	1.27310E-34	4.03307E-47	1.27766E-59	0.00000E+00
S	16	37	3.04012E+02	2.60916E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	1.14376E-12	1.14376E-12	1.14375E-12	1.14374E-12	1.14371E-12	1.14369E-12	1.14366E-12	1.14361E-12
AR	18	37	3.02684E+06	1.16855E-09	4.48863E-19	2.37186E-25	4.81498E-41	1.98346E-72	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	1.89972E-10	1.88508E-10	1.87539E-10	1.85137E-10	1.80424E-10	1.75832E-10	1.71356E-10	1.62744E-10
AR	18	41	6.60140E+03	1.39900E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	1.59746E-15	1.59746E-15	1.59746E-15	1.59746E-15	1.59746E-15	1.59746E-15	1.59746E-15	1.59746E-15
K	19	42	4.47192E+04	3.39131E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	3.43196E-10	3.43187E-10	3.43181E-10	3.43166E-10	3.43136E-10	3.43106E-10	3.43077E-10	3.43017E-10
CA	20	45	1.42623E+07	1.04744E-07	1.05171E-09	4.89489E-11	2.28750E-14	4.99561E-21	1.09098E-27	2.38258E-34	1.13634E-47
CA	20	47	3.91608E+05	5.40284E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	1.37294E-08	1.61055E-12	3.85942E-15	1.08494E-21	8.57325E-35	6.77453E-48	5.35328E-61	0.00000E+00
SC	21	47	2.96217E+05	2.32320E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	5.36761E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	2.46904E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	8.45262E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.52648E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.46552E-16	1.46851E-17	3.16810E-18	6.84869E-20	3.20052E-23	1.49568E-26	6.98958E-30	1.52644E-36
V	23	52	2.02084E+02	4.04310E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19927E+02	1.38705E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	1.50612E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	5.91303E-09	7.75046E-21	9.28256E-29	1.45729E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	1.32359E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	1.33330E-19	1.33330E-19	1.33330E-19	1.33330E-19	1.33330E-19	1.33329E-19	1.33329E-19	1.33329E-19
MN	25	54	2.61565E+07	1.71702E-10	1.39703E-11	2.62316E-12	4.00752E-14	9.35360E-18	2.18308E-21	5.09529E-25	2.77566E-32
MN	25	56	9.29152E+03	9.17210E-06	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	2.31813E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	2.58068E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.34470E-06	6.04222E-07	3.54468E-07	9.34392E-08	6.49279E-09	4.51164E-10	3.13499E-11	1.51371E-13
FE	26	59	3.89409E+06	1.40356E-08	6.73924E-16	8.90275E-21	5.64717E-33	2.27201E-57	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	3.13115E-25	3.13109E-25	3.13104E-25	3.13094E-25	3.13072E-25	3.13050E-25	3.13029E-25	3.12985E-25
FE	26	61	3.60001E+02	3.07493E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	9.99583E-16	6.11283E-17	9.48838E-18	9.00674E-20	8.11549E-24	7.31239E-28	6.58886E-32	5.34953E-40
CO	27	58	6.13405E+06	4.90801E-13	1.10869E-17	8.85973E-21	1.59932E-28	5.21139E-44	1.69813E-59	5.53335E-75	0.00000E+00
CO	27	60	1.65983E+08	3.16489E-08	2.13137E-08	1.63754E-08	8.47277E-09	2.26826E-09	6.07238E-10	1.62564E-10	1.16509E-11
CO	27	61	5.94007E+03	4.05308E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	1.68688E-14	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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CO 27 64	2.99999E-01	8.41414E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI 28 59	2.52053E+12	9.16886E-14	9.16862E-14	9.16846E-14	9.16806E-14	9.16727E-14	9.16647E-14	9.16568E-14	9.16408E-14	
NI 28 63	2.90020E+09	1.30527E-11	1.27607E-11	1.25697E-11	1.21045E-11	1.12251E-11	1.04095E-11	9.65337E-12	8.30172E-12	
NI 28 65	9.21738E+03	1.41715E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CU 29 64	4.62098E+04	1.85019E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
RB 37 86	1.60972E+06	1.81307E-16	3.58032E-34	5.63544E-46	1.75174E-75	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 87	1.00799E+04	1.07452E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 89	4.50099E+06	7.30879E-15	3.40408E-21	2.04538E-25	5.72410E-36	4.48287E-57	3.51074E-78	0.00000E+00	0.00000E+00	
SR 38 90	8.86377E+08	2.07877E-19	1.93043E-19	1.83746E-19	1.62417E-19	1.26898E-19	9.91471E-20	7.74648E-20	4.72683E-20	
SR 38 91	3.48315E+04	1.43793E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 92	9.75604E+03	6.28991E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SR 38 93	4.50095E+02	3.17099E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 89	1.56998E+01	1.21541E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 90	2.30281E+05	1.80460E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 91	5.09667E+06	1.82001E-15	4.65924E-21	8.71930E-25	4.17725E-34	9.58725E-53	2.20038E-71	0.00000E+00	0.00000E+00	
Y 39 92	1.27440E+04	5.26080E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 94	1.12200E+03	1.06374E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
Y 39 96	9.80406E+00	9.28112E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
ZR 40 88	7.20602E+06	2.96332E-18	3.28733E-22	7.58963E-25	1.94389E-31	1.27512E-44	8.36436E-58	5.48672E-71	0.00000E+00	
ZR 40 89	2.82249E+05	2.96094E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
ZR 40 93	4.74758E+13	4.81747E-16	4.81746E-16	4.81746E-16	4.81745E-16	4.81742E-16	4.81740E-16	4.81738E-16	4.81733E-16	
ZR 40 95	5.63534E+06	2.11022E-14	1.84959E-19	7.86280E-23	2.92973E-31	4.06738E-48	5.64681E-65	0.00000E+00	0.00000E+00	
ZR 40 97	6.04840E+04	9.41404E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 91	2.20888E+10	1.22148E-19	1.21785E-19	1.21544E-19	1.20944E-19	1.19752E-19	1.18572E-19	1.17404E-19	1.15101E-19	
NB 41 92	8.80746E+05	4.16293E-15	1.82479E-47	4.88748E-69	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 94	6.30134E+11	6.02756E-14	6.02693E-14	6.02652E-14	6.02547E-14	6.02338E-14	6.02129E-14	6.01920E-14	6.01502E-14	
NB 41 95	3.02684E+06	5.53838E-16	2.12740E-25	1.12415E-31	2.28183E-47	9.40066E-79	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 96	8.28132E+04	1.00622E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 97	4.33217E+03	9.74243E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 98	3.06025E+03	2.68440E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
NB 41 100	3.09994E+00	1.73569E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
MO 42 93	2.84077E+11	7.45766E-17	7.45594E-17	7.45479E-17	7.45192E-17	7.44619E-17	7.44045E-17	7.43473E-17	7.42329E-17	
MO 42 99	2.41515E+05	3.18711E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
MO 42 101	8.76292E+02	1.75479E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
RH 45 104	2.61565E+02	2.13461E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
RH 45 106	7.84813E+03	1.27086E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PD 46 107	2.05134E+14	5.99385E-24	5.99385E-24	5.99385E-24	5.99385E-24	5.99384E-24	5.99383E-24	5.99383E-24	5.99381E-24	
PD 46 109	4.83704E+04	1.25271E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
AG 47 106	7.34422E+05	4.38986E-17	6.87535E-56	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
AG 47 108	4.10389E+09	6.54465E-12	6.44083E-12	6.37254E-12	6.20495E-12	5.88288E-12	5.57753E-12	5.28803E-12	4.75332E-12	
AG 47 110	2.15826E+07	7.51823E-13	3.59450E-11	4.73500E-12	2.98213E-14	1.18287E-18	4.69187E-23	1.86103E-27	2.92803E-36	
CD 48 109	3.99508E+07	1.10994E-17	2.14752E-18	7.18396E-19	4.64977E-20	1.94788E-22	8.16015E-25	3.41843E-27	5.99918E-32	
CD 48 111	2.92221E+03	2.47190E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CD 48 115	1.92541E+05	6.92995E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CD 48 117	1.22398E+04	1.99499E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CD 48 119	5.97541E+02	1.11898E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 111	2.42444E+05	3.22790E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 112	1.25400E+03	2.09589E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 114	4.27869E+06	3.54097E-18	7.73306E-25	2.80441E-29	2.22109E-40	1.39312E-62	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 115	1.61497E+04	4.17018E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 116	1.40998E+01	1.73946E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 117	6.95931E+03	2.64395E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 118	2.63955E+02	8.55605E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 119	1.26027E+02	9.60943E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 120	4.40093E+01	1.79258E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
IN 49 122	1.00998E+01	2.44462E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SN 50 113	9.94473E+06	8.73802E-14	1.19025E-16	1.46258E-18	2.44814E-23	6.85878E-33	1.92160E-42	5.38361E-52	4.22578E-71	
SN 50 121	9.72156E+04	2.93611E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
SN 50 123	1.07967E+07	4.16010E-12	9.53817E-15	1.65847E-16	6.61179E-21	1.05081E-29	1.67003E-38	2.65416E-47	6.70409E-65	
SN 50 125	8.12599E+05	5.35425E-11	4.53796E-46	1.88640E-69	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
I 53 130	4.44981E+04	9.39420E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
XE 54 133	4.56018E+05	4.59706E-16	1.46670E-78	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CS 55 132	5.58990E+05	3.47988E-15	3.61326E-66	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CS 55 134	6.47801E+07	2.49155E-09	9.04753E-10	4.60508E-10	8.51147E-11	2.90763E-12	9.93280E-14	3.39317E-15	3.95985E-18	
EU 63 152	4.17559E+08	2.97945E-08	2.54615E-08	2.29288E-08	1.76452E-08	1.04501E-08	6.18888E-09	3.66526E-09	1.28555E-09	
EU 63 154	2.69812E+08	2.78749E-08	2.18568E-09	1.85852E-09	1.23915E-09	5.50852E-10	2.44876E-10	1.08857E-10	2.15119E-11	
LU 71 174	1.22687E+07	2.38482E-21	1.13379E-23	3.20565E-25	4.30905E-29	7.78589E-37	1.40678E-44	2.54183E-52	8.29837E-68	
LU 71 177	1.38242E+07	8.51659E-19	7.39122E-21	3.12140E-22	1.14403E-25	1.53675E-32	2.06429E-39	2.77291E-46	5.08351E-60	
HF 72 173	8.49653E+04	1.62144E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 175	6.04840E+06	1.39767E-10	2.71346E-15	1.96007E-18	2.74882E-26	5.40600E-42	1.06318E-57	2.09091E-73	0.00000E+00	
HF 72 178	9.78261E+08	9.02817E-20	8.44243E-20	8.07320E-20	7.21923E-20	5.77274E-20	4.61608E-20	3.69118E-20	2.36019E-20	
HF 72 179	1.89384E+10	4.46728E-21	4.45183E-21	4.44156E-21	4.41598E-21	4.36527E-21	4.31514E-21	4.26559E-21	4.16818E-21	
HF 72 180	1.98723E+04	7.24177E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 181	3.66357E+06	8.59221E-10	1.42883E-17	9.30895E-23	1.00858E-35	1.18383E-61	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 182	2.84077E+14	4.39455E-26	4.39455E-26	4.39455E-26	4.39455E-26	4.39455E-26	4.39454E-26	4.39454E-26	4.39453E-26	
TA 73 180	2.93458E+04	7.63534E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TA 73 182	9.89362E+06	1.21840E-09	1.60403E-12	1.92675E-14	3.04699E-19	7.61970E-29	1.90548E-38	4.76509E-48	2.97997E-67	
W 74 181	1.20968E+07	5.63288E-15	2.48194E-17	6.67060E-19	7.89961E-23	1.10783E-30	1.55361E-38	2.17873E-46	4.28496E-62	
W 74 185	6.47801E+06	6.36722E-11	2.53835E-15	2.96223E-18	1.37816E-25	2.98285E-40	6.45610E-55	1.39734E-69	0.00000E+00	
W 74 187	8.59984E+04	1.26399E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 203	4.02525E+06	2.40445E-17	1.99926E-24	3.80860E-29	6.03292E-41	1.51361E-64	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 205	3.11947E+02	1.74350E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 204	1.19282E+08	2.99587E-19	1.72822E-19	1.19761E-19	4.78750E-20	7.65059E-21	1.22259E-21	1.95373E-22	4.98926E-24	
TL 81 206	2.52054E+02	4.24971E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 207	2.86188E+02	3.59525E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 203	1.86782E+05	8.43966E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 205	4.76390E+14	4.88739E-20	4.88739E-20	4.88739E-20	4.88739E-20	4.88739E-20	4.88739E-20	4.88739E-20	4.88738E-20	
PB 82 207	7.95989E-01	8.51896E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TOTAL (CURIES/CC)		1.29026E-05	6.76325E-07	4.15082E-07	1.35292E-07	2.81922E-08	1.25159E-08	7.05474E-09	2.67306E-09	
TOTAL (CURIES)		1.24859E+02	6.54480E+00	4.01675E+00	1.30922E+00	2.72816E-01	1.21117E-01	6.82687E-02	2.58672E-02	

COMPONENT : CONCRETE - AXIAL DOWN - SECOND 6 INCHES - R4
VOLUME : 9.67700E+06 CC
: ABOVE VOLUME IS FOR THE SECOND 6 INCHES OF CONCRETE IN THE
: AXIAL DOWN DIRECTION
:
: (INTERVALS 59-61 TOTGDNR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	1.62633E-09	1.37281E-09	1.22616E-09	9.26451E-10	5.25483E-10	2.98700E-10	1.69789E-10	5.48606E-11
HE	2	6	8.09751E-01	8.33145E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	3.48179E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	2.16537E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	2.29089E-20	2.29088E-20	2.29088E-20	2.29088E-20	2.29087E-20	2.29087E-20	2.29086E-20	2.29085E-20
B	5	12	1.99754E-02	4.80344E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	8.15373E-13	8.15078E-13	8.14881E-13	8.14388E-13	8.13405E-13	8.12422E-13	8.11441E-13	8.09482E-13
F	9	20	1.10023E+01	8.45318E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	1.25812E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	6.56856E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	6.42669E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	7.16977E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	2.47844E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	8.91153E-12	7.65507E-35	3.21080E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	8.47857E-11	1.50856E-14	4.77212E-17	2.68602E-23	8.50908E-36	2.69560E-48	8.53957E-61	0.00000E+00
S	16	37	3.04012E+02	5.80608E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	7.62939E-14	7.62934E-14	7.62930E-14	7.62922E-14	7.62905E-14	7.62887E-14	7.62871E-14	7.62837E-14
AR	18	37	3.02684E+06	2.54925E-10	9.79215E-20	5.17432E-26	1.05030E-41	4.32701E-73	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	1.30219E-11	1.29216E-11	1.28551E-11	1.26904E-11	1.23674E-11	1.20526E-11	1.17459E-11	1.11555E-11
AR	18	41	6.60140E+03	3.06022E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	1.06616E-16	1.06616E-16	1.06616E-16	1.06616E-16	1.06616E-16	1.06616E-16	1.06616E-16	1.06616E-16
K	19	42	4.47192E+04	2.26287E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52653E+12	2.29348E-11	2.29342E-11	2.29338E-11	2.29328E-11	2.29308E-11	2.29288E-11	2.29268E-11	2.29228E-11
CA	20	45	1.42623E+07	6.99353E-09	7.02207E-11	3.26822E-12	1.52752E-15	3.33366E-22	7.28427E-29	1.59080E-35	7.58708E-49
CA	20	47	3.91608E+05	3.61057E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	9.14886E-10	1.07322E-13	2.57180E-16	7.22971E-23	5.71296E-36	4.51435E-49	3.56727E-62	0.00000E+00
SC	21	47	2.96217E+05	4.90433E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	1.22605E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	5.36499E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	1.99761E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.01879E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	3.46744E-17	3.47450E-18	7.49576E-19	1.62041E-20	7.57248E-24	3.53880E-27	1.65374E-30	3.61158E-37
V	23	52	2.02984E+02	2.69880E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	3.10236E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	3.56130E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	5.93966E-10	5.16388E-22	6.18467E-30	9.70944E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	2.89075E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	3.15459E-20	3.15459E-20	3.15459E-20	3.15459E-20	3.15458E-20	3.15458E-20	3.15457E-20	3.15456E-20
MN	25	54	2.61565E+07	3.68920E-11	3.00166E-12	5.63614E-13	8.61059E-15	2.00972E-18	4.69060E-22	1.09478E-25	5.96380E-33
MN	25	56	9.29152E+03	6.11377E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	5.13036E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	6.06791E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	8.98610E-08	4.03778E-08	2.36877E-08	6.24417E-09	4.33888E-10	3.01495E-11	2.09499E-12	1.01155E-14
FE	26	59	3.89409E+06	9.35539E-10	4.49202E-17	5.93410E-22	3.76410E-34	1.51440E-58	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	7.40117E-26	7.40102E-26	7.40092E-26	7.40066E-26	7.40015E-26	7.39963E-26	7.39912E-26	7.39810E-26
FE	26	61	3.60001E+02	7.47482E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	2.36383E-16	1.44557E-17	2.24583E-18	2.12993E-20	1.91916E-24	1.72924E-28	1.55814E-32	1.26502E-40
CO	27	58	6.13405E+06	1.04596E-13	2.36276E-18	1.88812E-21	3.40835E-29	1.11061E-44	3.61892E-60	1.17923E-75	0.00000E+00
CO	27	60	1.65983E+08	2.10656E-09	1.41864E-09	1.08995E-09	5.63950E-10	1.50976E-10	4.04179E-11	1.08203E-11	7.75487E-13
CO	27	61	5.94007E+03	8.86738E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	3.85598E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	1.99062E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	6.11810E-15	6.11794E-15	6.11784E-15	6.11757E-15	6.11704E-15	6.11651E-15	6.11598E-15	6.11492E-15
NI	28	63	2.90020E+09	8.75921E-13	8.56825E-13	8.43504E-13	8.12287E-13	7.53276E-13	6.98551E-13	6.47802E-13	5.57098E-13
NI	28	65	9.21738E+03	3.09688E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	1.23444E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.60972E+06	4.24466E-17	8.38209E-35	1.31934E-46	4.10108E-76	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	2.48351E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.50096E+06	1.62677E-15	7.57670E-22	4.55253E-26	1.27405E-36	9.97783E-58	7.81409E-79	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	4.75247E-20	4.41334E-20	4.20080E-20	3.71317E-20	2.90114E-20	2.26670E-20	1.77100E-20	1.08110E-20
SR	38	91	3.48315E+04	3.32231E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	1.48128E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.50095E+02	7.48920E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	2.86428E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	1.20446E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	4.09811E-16	1.04912E-21	1.96332E-25	9.40591E-35	2.15876E-53	4.95460E-72	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	1.20671E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	2.48236E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	2.19573E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	6.58959E-19	7.31010E-23	1.68772E-25	4.32267E-32	2.83551E-45	1.86000E-58	1.22009E-71	0.00000E+00
ZR	40	89	2.82249E+05	6.73486E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	3.21773E-17	3.21773E-17	3.21772E-17	3.21772E-17	3.21770E-17	3.21769E-17	3.21767E-17	3.21764E-17
ZR	40	95	5.63534E+06	4.98985E-15	4.37356E-20	1.85925E-23	6.92769E-32	9.61781E-49	1.33525E-65	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	5.15160E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	2.86636E-20	2.85785E-20	2.85220E-20	2.83811E-20	2.81015E-20	2.78245E-20	2.75504E-20	2.70101E-20
NB	41	92	8.80746E+05	9.60298E-16	4.20940E-48	1.12744E-69	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	3.98458E-15	3.98416E-15	3.98388E-15	3.98319E-15	3.98181E-15	3.98043E-15	3.97905E-15	3.97628E-15
NB	41	95	3.02684E+06	1.24298E-16	4.77454E-26	2.52294E-32	5.12114E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	2.30198E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	2.20440E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	6.24777E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	4.10288E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	4.68239E-18	4.68131E-18	4.68059E-18	4.67879E-18	4.67519E-18	4.67159E-18	4.66799E-18	4.66081E-18
MO	42	99	2.41515E+05	2.06929E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	1.14077E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	4.94233E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84813E+03	2.86250E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.05134E+14	1.35503E-24	1.35503E-24	1.35503E-24	1.35503E-24	1.35503E-24	1.35503E-24	1.35503E-24	1.35502E-24
PD	46	109	4.83704E+04	2.82638E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34422E+05	1.03864E-17	1.62671E-57	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10389E+09	4.34410E-13	4.27519E-13	4.22986E-13	4.11862E-13	3.90484E-13	3.70216E-13	3.51000E-13	3.15508E-13
AG	47	110	2.15826E+07	4.87905E-11	2.33270E-12	3.07284E-13	1.93530E-15	7.67641E-20	3.04485E-24	1.20774E-28	1.90019E-37
CD	48	109	3.99508E+07	2.50140E-18	4.83975E-19	1.61901E-19	1.04789E-20	4.38983E-23	1.83901E-25	7.70394E-28	1.35200E-32
CD	48	111	2.92221E+03	5.64324E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	1.62172E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22399E+04	4.71998E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	2.64752E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42444E+05	7.55877E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.25400E+03	4.72513E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	8.05593E-19	1.75932E-25	6.38019E-30	5.05311E-41	3.16944E-63	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	9.40851E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.48998E+01	4.01121E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.95931E+03	5.98846E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63055E+02	1.99695E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	2.19342E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.40093E+01	4.25761E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.00998E+01	5.78401E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	113	9.94473E+06	5.24689E-15	7.14704E-18	8.78232E-20	1.47005E-24	4.11846E-36	1.15386E-43	3.23267E-53	2.53744E-72
SN	50	121	9.72156E+04	1.95062E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	2.76722E-13	6.34461E-16	1.10318E-17	4.39884E-22	6.98975E-31	1.11087E-39	1.76550E-48	4.45943E-66
SN	50	125	8.12599E+05	3.53085E-12	2.99256E-47	1.24399E-70	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

I 53 130	4.44981E+04	2.12372E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	1.02234E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	8.23341E-16	8.54900E-07	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	1.62569E-10	5.90335E-11	3.00473E-11	5.55358E-12	1.89717E-13	6.48098E-15	2.21398E-16	2.58373E-19	
EU 63 152	4.17559E+08	1.98[illegible]E-09	1.70040E-09	1.55126E-09	1.17841E-09	6.97890E-10	4.13513E-10	2.44778E-10	8.58531E-11	
EU 63 154	2.69812E+08	1.85138E-10	1.45168E-10	1.23439E-10	8.23015E-11	3.65863E-11	1.62641E-11	7.23004E-12	1.42877E-12	
LU 71 174	1.22687E+07	5.14036E-22	2.44382E-24	6.90962E-26	9.28795E-30	1.67821E-37	3.03225E-45	5.47880E-53	1.78867E-68	
LU 71 177	5.38242E+07	1.91805E-19	1.66460E-21	7.02983E-23	2.57651E-26	3.46098E-33	4.64906E-40	6.24498E-47	1.12686E-60	
HF 72 173	8.49653E+04	3.83635E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 175	6.04840E+06	9.26340E-12	1.79842E-16	1.29909E-19	1.82185E-27	3.58297E-43	7.04649E-59	1.38581E-74	0.00000E+00	
HF 72 178	9.78261E+08	2.05826E-20	1.92472E-20	1.84054E-20	1.64585E-20	1.31608E-20	1.05238E-20	8.41520E-21	5.38080E-21	
HF 72 179	1.89384E+10	1.01160E-21	1.00810E-21	1.00517E-21	9.99979E-22	9.88496E-22	9.77144E-22	9.65923E-22	9.43866E-22	
HF 72 180	1.98723E+04	1.65648E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 181	3.66357E+06	5.56950E-11	9.26174E-19	6.03410E-24	6.53766E-37	7.67[illegible]E-63	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 182	2.84077E+14	1.01133E-26	1.01133E-26	1.01133E-26	1.01133E-26	1.01133E-26	1.01133E-26	1.01133E-26	1.01133E-26	
TA 73 180	2.93458E+04	1.80275E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TA 73 182	9.89362E+06	7.80793E-11	1.02791E-13	1.23473E-15	1.95261E-20	4.88296E-30	1.22110E-39	3.05363E-49	1.90966E-68	
W 74 181	1.20968E+07	1.33266E-15	5.87194E-16	1.57817E-19	1.86893E-23	2.62097E-31	3.67561E-39	5.15456E-47	1.01376E-62	
W 74 185	6.47801E+06	4.1[illegible]01E-12	1.67198E-16	1.95119E-19	9.07780E-27	1.96477E-41	4.25256E-56	9.20430E-71	0.00000E+00	
W 74 187	8.59984E+04	8.22727E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 203	4.02525E+06	5.55334E-18	4.61750E-25	8.79638E-30	1.39337E-41	3.49584E-65	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 205	3.11947E+02	4.08546E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 204	1.19282E+08	6.84785E-20	3.95030E-20	2.73746E-20	1.09431E-20	1.74874E-21	2.79455E-22	4.46577E-23	1.14043E-24	
TL 81 206	2.52054E+02	9.84931E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 207	2.86188E+02	8.26621E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 203	1.86782E+05	1.99676E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 205	4.76390E+14	1.15545E-20	1.15545E-20	1.15545E-20	1.15545E-20	1.15545E-20	1.15545E-20	1.15545E-20	1.15545E-20	
PB 82 207	7.95989E-01	2.00854E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TOTAL (CURIES/CC)		8.61213E-07	4.51876E-08	2.77306E-08	9.03658E-09	1.88235E-09	8.35798E-10	4.71281E-10	1.78775E-10	
TOTAL (CURIES)		8.33395E+00	4.37281E-01	2.68349E-01	8.74469E-02	1.82155E-02	8.08802E-03	4.56059E-03	1.73001E-03	

COMPONENT : CONCRETE - AXIAL DOWN - THIRD 6 INCHES - R4
VOLUME : 9.67790E+06 CC
: ABOVE VOLUME IS FOR THE THIRD 6 INCHES OF CONCRETE IN THE
: AXIAL DOWN DIRECTION
:
: (INTERVALS 62-64 TOTGDNR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	1.42646E-10	1.20410E-10	1.07546E-10	8.10837E-11	4.60902E-11	2.61990E-11	1.48922E-11	4.81183E-12
HE	2	6	8.09755E-01	1.78450E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	5.05428E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	4.66184E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	2.81942E-21	2.81942E-21	2.81942E-21	2.81941E-21	2.81940E-21	2.81940E-21	2.81939E-21	2.81937E-21
B	5	12	1.99754E-02	4.21383E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	7.15680E-14	7.15421E-14	7.15248E-14	7.14816E-14	7.13952E-14	7.13090E-14	7.12228E-14	7.10509E-14
F	9	20	1.10023E+01	1.97443E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	2.83347E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	5.76733E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	1.43308E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	6.38247E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	5.59858E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.94260E-12	1.66670E-35	6.99913E-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	7.44666E-12	1.32494E-15	4.19132E-18	2.35911E-24	7.47346E-37	2.36753E-49	7.50024E-62	0.00000E+00
S	16	37	3.04012E+02	1.51288E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	6.71341E-15	6.71337E-15	6.71334E-15	6.71326E-15	6.71311E-15	6.71296E-15	6.71281E-15	6.71251E-15
AR	18	37	3.02684E+06	5.65648E-11	2.17276E-20	1.14812E-26	2.33049E-42	9.60111E-74	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	1.20696E-12	1.19766E-12	1.19150E-12	1.17623E-12	1.14630E-12	1.11712E-12	1.08869E-12	1.03397E-12
AR	18	41	6.60140E+03	6.81495E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	9.35400E-18	9.35400E-18	9.35400E-18	9.35400E-18	9.35400E-18	9.35400E-18	9.35400E-18	9.35400E-18
K	19	42	4.47192E+04	1.98742E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	2.01125E-12	2.01119E-12	2.01116E-12	2.01107E-12	2.01098E-12	2.01072E-12	2.01055E-12	2.01020E-12
CA	20	45	1.42623E+07	6.14482E-10	6.16990E-12	2.87160E-13	1.34197E-16	2.93068E-23	6.40028E-30	1.39775E-36	6.66634E-50
CA	20	47	3.91600E+05	3.16630E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	8.03529E-11	9.42593E-15	2.25877E-17	6.34973E-24	5.01760E-37	3.96488E-50	3.13307E-63	0.00000E+00
SC	21	47	2.96217E+05	1.06777E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	2.83378E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	2.18707E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	4.74276E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	8.94308E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	8.23954E-18	8.25633E-19	1.78119E-19	3.85052E-21	1.79942E-24	8.40912E-28	3.92973E-31	8.58207E-38
V	23	52	2.02084E+02	2.36833E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19022E+02	7.04564E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	8.45871E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	3.48038E-11	4.56188E-23	5.46366E-31	8.57751E-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	6.42888E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	7.49612E-21	7.49611E-21	7.49611E-21	7.49610E-21	7.49609E-21	7.49608E-21	7.49606E-21	7.49603E-21
MN	25	54	2.61565E+07	8.06279E-12	6.56017E-13	1.23178E-13	1.88185E-15	4.39227E-19	1.02513E-22	2.39265E-26	1.30359E-33
MN	25	56	9.29152E+03	5.37216E-08	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.15439E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.43508E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	7.88145E-09	3.55[illegible]2E-09	2.07758E-09	5.47659E-10	3.80550E-11	2.64432E-12	1.83746E-13	8.87208E-16
FE	26	59	3.89409E+06	8.22393E-11	3.94875E-18	5.21642E-23	3.30886E-35	1.33125E-59	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	1.75743E-26	1.75739E-26	1.75737E-26	1.75731E-26	1.75718E-26	1.75706E-26	1.75694E-26	1.75670E-26
FE	26	61	3.60001E+02	1.72860E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	5.61493E-17	3.43374E-18	5.32988E-19	5.05935E-21	4.55869E-25	4.10757E-29	3.70114E-33	3.00467E-41
CO	27	58	6.13405E+06	2.27983E-14	5.15003E-19	4.11546E-22	7.42906E-30	2.42076E-45	7.88803E-61	2.57031E-76	0.00000E+00
CO	27	60	1.65983E+08	1.85389E-10	1.24849E-10	9.59218E-11	4.96308E-11	1.32867E-11	3.55700E-12	9.52250E-13	6.82472E-14
CO	27	61	5.94007E+03	1.97362E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	8.91855E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

CE 58	144	2.84099E-01	4.72994E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI 28	59	2.52053E+12	5.36721E-16	5.36707E-16	5.36697E-16	5.36674E-16	5.36628E-16	5.36581E-16	5.36534E-16	5.36441E-16
NI 28	63	2.96620E+09	7.75910E-14	7.58551E-14	7.47194E-14	7.19541E-14	6.67267E-14	6.18792E-14	5.73837E-14	4.93489E-14
NI 28	65	9.21732E+03	6.88914E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU 29	64	4.62098E+05	1.08409E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB 37	86	1.60972E+06	1.80057E-17	1.97585E-35	3.11000E-47	9.66720E-77	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38	87	1.00799E+04	5.79581E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38	89	4.50096E+06	3.67797E-16	1.71302E-22	1.02929E-26	2.88052E-37	2.25590E-58	0.00000E+00	0.00000E+00	0.00000E+00
SR 38	90	8.86377E+08	1.09928E-20	1.02084E-20	9.71675E-21	8.58881E-21	6.71054E-21	5.24303E-21	4.09644E-21	2.50067E-21
SR 38	91	3.48515E+04	7.75122E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38	92	9.75604E+03	3.50751E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38	93	4.50095E+02	1.77723E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39	89	1.56998E+01	6.78548E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39	90	2.30281E+05	1.05673E-11	9.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39	91	5.09667E+06	3.35840E-17	2.39576E-22	4.48343E-26	2.14792E-35	4.92972E-54	1.13143E-72	0.00000E+00	0.00000E+00
Y 39	92	1.27440E+04	2.79887E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39	94	1.12200E+03	5.83694E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39	95	9.00496E+00	5.21728E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40	88	7.28602E+06	1.48915E-19	1.65198E-23	3.81401E-26	9.76862E-33	6.40785E-46	4.20333E-59	2.75723E-72	0.00000E+00
ZR 40	89	2.82249E+05	1.55119E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40	93	4.74758E+13	2.83389E-18	2.83389E-18	2.83389E-18	2.83388E-18	2.83387E-18	2.83385E-18	2.83384E-18	2.83381E-18
ZR 40	95	5.63534E+06	1.18519E-15	1.03881E-20	4.41610E-24	1.64547E-32	2.28443E-49	3.17150E-66	0.00000E+00	0.00000E+00
ZR 40	97	6.04840E+04	5.75809E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41	91	2.20888E+10	6.76876E-21	6.74868E-21	6.73533E-21	6.70206E-21	6.63602E-21	6.57065E-21	6.50589E-21	6.37830E-21
NB 41	92	8.80746E+05	2.23632E-16	9.80276E-49	2.62555E-70	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41	94	6.30134E+11	3.56325E-16	3.56287E-16	3.56263E-16	3.56201E-16	3.56077E-16	3.55954E-16	3.55830E-16	3.55583E-16
NB 41	95	3.02684E+06	2.83010E-17	1.08710E-26	5.74437E-33	1.16681E-48	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41	96	8.28132E+04	5.32748E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41	97	4.33217E+03	5.05495E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41	98	3.06025E+03	1.46605E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41	100	3.09994E+00	9.74270E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42	93	2.84077E+11	7.62149E-19	7.61856E-19	7.61856E-19	7.61562E-19	7.60976E-19	7.60391E-19	7.59805E-19	7.58636E-19
MO 42	99	2.41515E+05	1.98395E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42	101	2.76292E+02	1.00910E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45	104	2.61565E+02	1.75494E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45	106	7.84883E+03	6.54079E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD 46	107	2.05134E+14	3.10481E-25	3.10481E-25	3.10481E-25	3.10481E-25	3.10480E-25	3.10480E-25	3.10480E-25	3.10479E-25
PD 46	109	4.83704E+04	6.46509E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47	106	7.34422E+05	2.46809E-18	3.86549E-57	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47	108	4.10389E+09	3.83519E-14	3.77239E-14	3.73239E-14	3.63423E-14	3.44560E-14	3.26675E-14	3.09719E-14	2.78401E-14
AG 47	110	2.15826E+07	4.36661E-12	2.08770E-13	2.75010E-14	1.73203E-16	6.87016E-21	2.72585E-25	1.08089E-29	1.70061E-38
CD 48	109	3.99508E+07	5.71659E-19	1.10606E-19	3.70001E-20	2.39481E-21	1.00323E-23	4.20279E-26	1.76062E-28	3.08980E-33
CD 48	111	2.92221E+03	1.30371E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48	115	1.92541E+05	3.82144E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48	117	1.22399E+04	1.12156E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48	119	5.97541E+03	6.29120E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49	111	2.42444E+05	1.78210E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49	112	1.25400E+03	1.08005E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49	114	4.27869E+06	1.85575E-19	4.05273E-26	1.46977E-30	1.16402E-41	7.30106E-64	0.00000E+00	0.00000E+00	0.00000E+00
IN 49	115	1.61497E+04	2.15175E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49	116	1.40698E+01	9.34366E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49	117	6.95931E+03	1.37436E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49	118	2.63955E+02	4.69608E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49	119	1.26027E+02	5.06669E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49	120	4.40093E+01	1.00631E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49	122	1.00998E+01	1.37443E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50	113	9.94473E+06	8.36398E-16	1.13930E-18	1.39996E-20	2.34334E-25	6.56517E-35	1.83934E-44	5.15315E-54	4.04489E-73
SN 50	121	9.72156E+04	1.74468E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50	123	1.07967E+07	2.47434E-14	5.67312E-17	9.86423E-19	3.93257E-23	6.24999E-32	9.93303E-41	1.57865E-49	3.98747E-67
SN 50	125	8.12599E+05	3.14615E-13	2.66650E-48	1.10845E-71	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
I 53	130	4.44981E+04	4.86868E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54	133	4.56018E+05	2.30926E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55	132	5.58990E+05	1.95647E-16	2.03147E-67	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55	134	6.47501E+07	1.45177E-11	5.27178E-12	2.68327E-12	4.95943E-13	1.69420E-14	5.78761E-16	1.97712E-17	2.30731E-20
EU 63	152	4.17559E+08	1.74477E-10	1.49103E-10	1.34272E-10	1.03331E-10	6.11960E-11	3.62423E-11	2.14638E-11	7.52821E-12
EU 63	154	2.69812E+08	1.62963E-11	1.27780E-11	1.08653E-11	7.24435E-12	3.22040E-12	1.43160E-12	6.36404E-13	1.25763E-13
LU 71	174	1.22687E+07	1.12907E-22	5.36780E-25	1.51768E-26	2.04007E-30	3.68614E-38	6.66027E-46	1.20340E-53	3.92877E-69
LU 71	177	1.38242E+07	4.38058E-20	3.80174E-22	1.60552E-23	5.88441E-27	7.90442E-34	1.06178E-40	1.42627E-47	2.57360E-61
HF 72	173	8.49653E+04	9.11618E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72	175	6.04840E+06	8.14837E-13	1.58194E-17	1.14272E-20	1.60256E-28	3.15169E-44	6.19831E-60	1.21980E-75	0.00000E+00
HF 72	178	9.78761E+08	4.74944E-21	4.44130E-21	4.24706E-21	3.79782E-21	3.03686E-21	2.42838E-21	1.94181E-21	1.24162E-21
HF 72	179	1.89384E+10	2.32101E-22	2.31298E-22	2.30765E-22	2.29436E-22	2.26801E-22	2.24197E-22	2.21622E-22	2.16561E-22
HF 72	180	1.98723E+04	3.83302E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72	181	3.66357E+06	4.94346E-12	8.22067E-20	5.35583E-25	5.80278E-38	6.81107E-64	0.00000E+00	0.00000E+00	0.00000E+00
HF 72	182	2.84073E+14	2.35184E-27	2.35184E-27	2.35184E-27	2.35183E-27	2.35183E-27	2.35183E-27	2.35183E-27	2.35183E-27
TA 73	180	2.93458E+04	4.27699E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA 73	182	9.89362E+06	7.07683E-12	9.31665E-15	1.11911E-16	1.76978E-21	4.42574E-31	1.10676E-40	2.76770E-50	1.73085E-69
W 74	181	1.20968E+07	3.16660E-16	1.39525E-18	3.74996E-20	4.44087E-24	6.22782E-32	8.73582E-40	1.22480E-47	2.40884E-63
W 74	185	6.47801E+06	3.76367E-13	1.50042E-17	1.75096E-20	8.14634E-28	1.76317E-42	3.81621E-57	8.25968E-72	0.00000E+00
W 74	187	8.59984E+04	7.34999E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80	203	4.02525E+06	1.29523E-18	1.07696E-25	2.05162E-30	3.24982E-42	8.15350E-66	0.00000E+00	0.00000E+00	0.00000E+00
HG 80	205	3.11047E+02	9.63702E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81	204	1.19282E+08	1.50352E-20	9.13483E-21	6.33020E-21	2.53053E-21	4.04386E-22	6.46222E-23	1.03268E-23	2.63717E-25
TL 81	206	2.52054E+02	2.30349E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81	207	2.86188E+02	1.92096E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82	203	1.86782E+05	4.74470E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82	205	4.76390E+14	2.74403E-21	2.74403E-21	2.74403E-21	2.74403E-21	2.74403E-21	2.74403E-21	2.74403E-21	2.74403E-21
PB 82	207	7.95989E-01	4.76020E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)			7.57931E-08	3.96427E-09	2.43270E-09	7.92820E-10	1.65203E-10	7.33759E-11	4.13948E-11	1.57350E-11
TOTAL (CURIES)			7.33450E-01	3.83622E-02	2.35412E-02	7.67212E-03	1.59867E-03	7.10059E-04	4.00577E-04	1.52267E-04

FORM (A)2742 3946

COMPONENT : CONCRETE - AXIAL DOWN - FOURTH 6 INCHES - R4
VOLUME : 9.67700E+06 CC
: ABOVE VOLUME IS FOR THE FOURTH 6 INCHES OF CONCRETE IN THE
: AXIAL DOWN DIRECTION
:
: (INTERVALS 65-67 TOTGDNR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	1.53973E-11	1.29971E-11	1.16086E-11	8.75224E-12	4.97501E-12	2.82794E-12	1.60748E-12	5.19393E-13
HE	2	6	0.09751E-01	3.89151E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	3.29770E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	1.01953E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	4.57474E-22	4.57473E-22	4.57473E-22	4.57473E-22	4.57471E-22	4.57470E-22	4.57469E-22	4.57466E-22
B	5	12	1.99754E-02	4.54991E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80976E+11	7.73469E-15	7.73188E-15	7.73002E-15	7.72534E-15	7.71601E-15	7.70669E-15	7.69738E-15	7.67880E-15
F	9	20	1.10025E+01	4.64607E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	6.46209E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	6.23792E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	3.23947E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	7.07495E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	1.18914E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	4.28734E-13	3.68285E-36	1.54472E-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	8.05161E-13	1.43257E-16	4.53181E-19	2.55076E-25	8.08059E-38	2.55986E-50	8.10954E-63	0.00000E+00
S	16	37	3.04012E+02	3.00444E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	7.30274E-16	7.30269E-16	7.30266E-16	7.30258E-16	7.30241E-16	7.30225E-16	7.30208E-16	7.30176E-16
AR	18	37	3.02684E+06	1.27165E-11	4.88464E-21	2.58111E-27	5.23923E-43	2.15845E-74	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	1.42479E-13	1.41381E-13	1.40654E-13	1.38853E-13	1.35318E-13	1.31874E-13	1.28517E-13	1.22058E-13
AR	18	41	6.60140E+03	1.53955E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	6.10146E+16	1.01021E-18	1.01021E-18	1.01021E-18	1.01021E-18	1.01021E-18	1.01021E-18	1.01021E-18	1.01021E-18
K	19	42	4.47192E+04	2.15095E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	2.16758E-13	2.16753E-13	2.16749E-13	2.16740E-13	2.16721E-13	2.16702E-13	2.16683E-13	2.16646E-13
CA	20	45	1.42623E+07	6.65413E-11	6.68026E-13	3.10913E-14	1.45297E-17	3.17310E-24	6.92969E-31	1.51336E-37	7.21777E-51
CA	20	47	3.91608E+05	3.41251E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	8.71256E-12	1.02204E-15	2.44916E-18	6.88493E-25	5.44051E-38	4.29906E-51	3.39715E-64	0.00000E+00
SC	21	47	2.96217E+05	2.35859E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	6.60970E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	2.66637E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	1.13187E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	9.66989E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.96784E-18	1.97185E-19	4.25400E-20	9.19617E-22	4.29754E-25	2.00834E-28	9.38533E-32	2.04965E-38
V	23	52	2.02084E+02	2.55889E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	1.61864E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	2.01938E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	3.82233E-12	5.01009E-24	6.00048E-32	9.42027E-52	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	1.45033E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	1.79029E-21	1.79029E-21	1.79028E-21	1.79028E-21	1.79028E-21	1.79028E-21	1.79027E-21	1.79027E-21
MN	25	54	2.61565E+07	1.78589E-12	1.45306E-13	2.72838E-14	4.16826E-16	9.72878E-20	2.27065E-23	5.29967E-27	2.88699E-34
MN	25	56	9.28152E+03	5.82274E-09	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	2.63156E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	3.41334E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.29292E+07	8.49664E-20	3.81784E-10	2.23975E-10	5.90406E-11	4.10254E-12	2.85073E-13	1.98088E-14	9.56454E-17
FE	26	59	3.89409E+06	8.91992E-12	4.28293E-19	5.65788E-24	3.58889E-36	1.44391E-60	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	4.19660E-27	4.19451E-27	4.19445E-27	4.19431E-27	4.19402E-27	4.19373E-27	4.19344E-27	4.19286E-27
FE	26	61	3.60001E+02	4.12822E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	1.34057E-17	8.19810E-19	1.27251E-19	1.20792E-21	1.08839E-25	9.80685E-30	8.83651E-34	7.17415E-42
CO	27	58	6.13405E+06	5.03866E-15	1.13821E-19	9.09559E-23	1.64190E-30	5.35012E-46	1.74334E-61	5.68065E-77	0.00000E+00
CO	27	60	1.65983E+08	2.01669E-11	1.35312E-11	1.04345E-11	5.39891E-12	1.44535E-12	3.86936E-13	1.03587E-13	7.42403E-15
CO	27	61	5.94007E+03	4.45515E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	2.98091E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	1.12959E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	5.79690E-17	5.79675E-17	5.79665E-17	5.79640E-17	5.79590E-17	5.79540E-17	5.79489E-17	5.79389E-17
NI	28	63	2.90020E+09	6.71408E-15	8.32359E-15	8.19898E-15	7.89556E-15	7.32194E-15	6.79001E-15	6.29673E-15	5.41506E-15
NI	28	65	9.21738E+03	1.65536E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	1.17300E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.60972E+06	2.37298E-18	4.68601E-36	7.37579E-48	2.29271E-77	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	1.36257E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.50096E+06	8.42106E-17	3.92213E-23	2.35665E-27	6.59521E-38	5.16569E-59	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	2.56543E-21	2.38236E-21	2.26763E-21	2.00440E-21	1.56606E-21	1.22358E-21	9.56001E-22	5.83590E-22
SR	38	91	3.48315E+04	1.82182E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	8.35140E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.50095E+02	4.23958E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	1.61641E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	1.14122E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	2.16104E-17	5.53229E-23	1.03531E-26	4.95998E-36	1.13837E-54	2.61269E-73	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	6.54619E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	1.38131E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	1.24597E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	3.42961E-20	3.77843E-24	8.72344E-27	2.23429E-33	1.46561E-46	9.61396E-60	6.30637E-73	0.00000E+00
ZR	40	89	2.82249E+05	3.60775E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	3.08231E-19	3.08231E-19	3.08231E-19	3.08230E-19	3.08228E-19	3.08227E-19	3.08226E-19	3.08223E-19
ZR	40	95	5.63534E+06	2.82950E-16	2.48003E-21	1.05429E-24	3.92836E-33	5.45379E-50	7.57157E-67	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	9.33592E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	1.60783E-21	1.60306E-21	1.59988E-21	1.59198E-21	1.57630E-21	1.56076E-21	1.54538E-21	1.51508E-21
NB	41	92	8.80746E+05	5.25158E-17	2.30199E-19	6.16561E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	4.00085E-17	4.00043E-17	4.00015E-17	3.99946E-17	3.99807E-17	3.99668E-17	3.99530E-17	3.99252E-17
NB	41	95	3.02684E+06	6.51845E-18	2.50386E-27	1.52308E-33	2.68562E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	1.24393E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	1.17138E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	3.46313E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	2.32544E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	1.52298E-19	1.52263E-19	1.52239E-19	1.52181E-19	1.52063E-19	1.51946E-19	1.51829E-19	1.51596E-19
MO	42	99	2.41515E+05	2.49962E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	1.30286E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	2.71875E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84813E+03	1.50992E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.05134E+14	7.19132E-26	7.19132E-26	7.19132E-26	7.19131E-26	7.19131E-26	7.19130E-26	7.19129E-26	7.19128E-26
PD	46	109	4.83704E+04	1.49534E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34422E+05	5.89452E-19	9.23193E-58	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10389E+09	4.19622E-15	4.13162E-15	4.08781E-15	3.98031E-15	3.77371E-15	3.57784E-15	3.39213E-15	3.04913E-15
AG	47	110	2.15826E+07	4.98393E-13	2.38284E-14	3.13889E-15	1.97689E-17	7.84141E-22	3.11030E-26	1.23370E-30	1.94103E-39
CD	48	109	3.99508E+07	1.32102E-19	2.55593E-20	8.55019E-21	5.53405E-22	2.31832E-24	9.71203E-27	4.06854E-29	7.14009E-36
CD	48	111	2.92221E+03	3.03971E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	9.06074E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22399E+04	2.67855E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	1.50252E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42444E+05	4.22714E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.25400E+03	2.49619E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	4.31691E-20	9.42761E-27	3.41894E-31	2.70780E-42	1.69840E-64	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	4.97554E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.40998E+01	2.19335E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.95931E+03	3.18722E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63956E+02	1.11144E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	1.18123E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.40093E+01	2.40203E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.00998E+01	5.28255E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	113	9.84473E+06	1.66218E-16	2.26413E-19	2.78218E-21	4.65694E-26	1.30470E-35	3.65534E-45	1.02409E-54	8.03842E-74
SN	50	121	9.72156E+04	1.99315E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	2.77360E-15	6.35924E-18	1.10572E-19	4.40818E-24	7.00587E-33	1.11344E-41	1.76957E-50	4.46972E-68
SN	50	125	8.12599E+05	3.51666E-14	2.98052E-49	1.23898E-72	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

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I 53 130	4.44981E+04	1.12636E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+0	0.00000E+00	0.00000E+00	0.00000E+00	
XE 54 133	4.56018E+05	5.28508E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CS 55 132	5.58990E+05	4.67264E-17	4.85174E-68	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
CS 55 134	6.47801E+07	1.64376E-12	5.96895E-13	3.05812E-13	5.61530E-14	1.91826E-15	6.55300E-17	2.2385[illegible]-18	2.61245E-21	
EU 63 152	4.17559E+08	1.88131E-11	1.60771E-11	1.44780E-11	1.11418E-11	6.59851E-12	3.90785E-12	2.31436E-12	8.11736E-13	
EU 63 154	2.69812E+08	1.77801E-12	1.39415E-12	1.18547E-12	7.90399E-13	3.51364E-13	1.56196E-13	6.94352E-14	1.37215E-14	
LU 71 174	1.22687E+07	2.52256E-23	1.19927E-25	3.39081E-27	4.55794E-31	8.23559E-39	1.48804E-46	2.68665E-54	8.77767E-70	
LU 71 177	1.38242E+07	1.01199E-20	8.78263E-23	3.70901E-24	1.35940E-27	1.82605E-34	2.45289E-41	3.29492E-48	5.94543E-62	
HF 72 173	8.49653E+04	2.17721E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 175	6.04840E+06	8.90442E-14	1.72872E-18	1.24875E-21	1.75125E-29	3.44412E-45	6.77342E-61	1.33210E-76	0.00000E+00	
HF 72 178	9.78261E+08	1.10651E-21	1.03472E-21	9.89466E-22	8.84803E-22	7.07519E-22	5.65756E-22	4.52397E-22	2.89269E-22	
HF 72 179	1.89384E+10	5.38200E-23	5.36338E-23	5.35101E-23	5.32019E-23	5.25410E-23	5.19871E-23	5.13901E-23	5.02166E-23	
HF 72 180	1.98723E+04	8.94946E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 181	3.66357E+06	5.60896E-13	9.32735E-21	6.07685E-26	6.58397E-39	7.72799E-65	0.00000E+00	0.00000E+00	0.00000E+00	
HF 72 182	2.84077E+14	5.51365E-28	5.51365E-28	5.51365E-28	5.51365E-28	5.51364E-28	5.51364E-28	5.51363E-28	5.51363E-28	
TA 73 180	2.93458E+04	1.02007E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TA 73 182	9.89362E+06	8.31285E-13	1.09439E-15	1.31457E-17	2.07888E-22	5.19873E-32	1.30006E-41	3.25110E-51	2.03316E-70	
W 74 181	1.20968E+07	7.56246E-17	3.33214E-19	8.95564E-21	1.06057E-24	1.48732E-32	2.08580E-40	2.92506E-48	5.75279E-64	
W 74 185	6.47801E+06	4.26288E-14	1.69943E-18	1.98322E-21	9.22687E-29	1.99703E-43	4.32239E-58	9.35524E-73	0.00000E+00	
W 74 187	8.59984E+04	8.34326E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 203	4.02525E+06	3.04360E-19	2.53069E-26	4.82099E-31	7.63658E-43	1.91595E-66	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 205	3.11947E+02	2.28693E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 204	1.19282E+08	3.69598E-21	2.13209E-21	1.47748E-21	5.90630E-22	9.43846E-23	1.50830E-23	2.41030E-24	6.15522E-26	
TL 81 206	2.52054E+02	5.42593E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TL 81 207	2.86188E+02	4.50017E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 203	1.86782E+05	1.13315E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
PB 82 205	4.76390E+14	6.55021E-22	6.55021E-22	6.55021E-22	6.55021E-22	6.55021E-22	6.55021E-22	6.55020E-22	6.55020E-22	
PB 82 207	7.95989E-01	1.13427E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
TOTAL (CURIES/CC)		8.23555E-09	4.27648E-10	2.62424E-10	8.55565E-11	1.78464E-11	7.93154E-12	4.47808E-12	1.70865E-12	
TOTAL (CURIES)		7.96954E-02	4.13835E-03	2.53947E-03	8.27930E-04	1.72699E-04	7.67535E-05	4.33344E-05	1.65287E-05	

COMPONENT : CONCRETE - AXIAL DOWN - FIFTH 6 INCHES - R4
VOLUME : 9.67700E+06 CC
: ABOVE VOLUME IS FOR THE FIFTH 6 INCHES OF CONCRETE IN THE
: AXIAL DOWN DIRECTION
:
: (INTERVALS 68-70 TOTGDNR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	1.99883E-12	1.68724E-12	1.50700E-12	1.13619E-12	6.45842E-13	3.67114E-13	2.08678E-13	6.74260E-14
HE	2	6	8.09751E-01	8.60268E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	4.28273E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	5.00064E-16	2.25608E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	8.74730E-23	8.74730E-23	8.74729E-23	8.74728E-23	8.74726E-23	8.74723E-23	8.74721E-23	8.74716E-23
B	5	12	1.99754E-02	5.90937E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	1.00586E-15	1.00550E-15	1.00525E-15	1.00465E-15	1.00343E-15	1.00222E-15	1.00101E-15	9.98593E-16
F	9	20	1.10023E+01	1.09849E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	1.48654E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	8.12251E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	7.39419E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	9.53747E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	2.64335E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	9.55558E-14	8.20831E-37	3.44285E-52	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	1.04752E-15	1.86379E-17	5.89592E-20	3.31856E-26	1.05129E-38	3.33040E-51	1.05506E-63	0.00000E+00
S	16	37	3.04012E+02	6.93184E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	9.58843E-17	9.58837E-17	9.58833E-17	9.58822E-17	9.58800E-17	9.58779E-17	9.58758E-17	9.58715E-17
AR	18	37	3.02684E+06	2.88660E-12	1.10880E-21	5.85905E-28	1.18929E-43	4.89962E-75	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	2.07163E-14	2.05567E-14	2.04510E-14	2.01890E-14	1.96752E-14	1.91744E-14	1.86863E-14	1.77472E-14
AR	18	41	6.60140E+03	3.51305E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	1.31243E-19	1.31243E-19	1.31243E-19	1.31243E-19	1.31243E-19	1.31243E-19	1.31243E-19	1.31243E-19
K	19	42	4.47192E+04	2.80327E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	2.80681E-14	2.80673E-14	2.80669E-14	2.80656E-14	2.80632E-14	2.80608E-14	2.80583E-14	2.80535E-14
CA	20	45	1.42623E+07	8.67514E-12	8.71054E-14	4.05407E-15	1.89456E-18	4.13748E-25	9.03578E-32	1.97331E-38	9.41142E-52
CA	20	47	3.91608E+05	4.41905E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	1.13893E-12	1.33604E-16	3.20160E-19	9.00015E-26	7.11198E-39	5.61985E-52	4.44084E-65	0.00000E+00
SC	21	47	2.96217E+05	5.26678E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	1.55098E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	6.05384E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	2.70967E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	1.25854E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	4.71409E-19	4.72370E-20	1.01907E-20	2.20300E-22	1.02950E-25	4.81112E-29	2.24832E-32	4.91006E-39
V	23	52	2.02084E+02	3.32673E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	3.74778E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	4.83586E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	5.09017E-13	6.67190E-25	7.99080E-33	1.25449E-52	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E-02	3.50485E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	4.28874E-22	4.28873E-22	4.28873E-22	4.28873E-22	4.28872E-22	4.28871E-22	4.28871E-22	4.28869E-22
MN	25	54	2.61565E+07	3.99661E-13	3.25178E-14	6.10578E-15	9.32808E-17	2.17719E-20	5.08145E-24	1.18600E-27	6.46075E-35
MN	25	56	9.2915[illegible]E+03	7.60587E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	6.05319E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	8.14710E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.10072E-10	4.94593E-11	2.90154E-11	7.64858E-12	5.31475E-13	3.69305E-14	2.56618E-15	1.23906E-17
FE	26	59	3.89409E+06	1.16632E-12	5.60010E-20	7.39792E-25	4.69263E-37	1.88797E-61	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	1.00428E-27	1.00426E-27	1.00425E-27	1.00421E-27	1.00414E-27	1.00407E-27	1.00400E-27	1.00386E-27
FE	26	61	3.60001E+02	9.88903E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	3.21048E-18	1.96333E-19	3.04750E-20	2.89280E-22	2.60655E-26	2.34861E-30	2.11622E-34	1.71811E-42
CO	27	58	6.13405E+06	1.12553E-15	2.54251E-20	2.03175E-23	3.66763E-31	1.19510E-46	3.89422E-62	1.26893E-77	0.00000E+00
CO	27	60	1.65983E+08	2.64856E-12	1.78365E-12	1.37038E-12	7.09050E-13	1.89821E-13	5.08171E-14	1.36043E-14	9.75012E-16
CO	27	61	5.94007E+03	1.01586E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	4.86317E-17	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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CD 27 64	2.99999E-01	2.70587E	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI 28 59	2.52053E+12	7.53242E-18	7.53222E-18	7.53209E-18	7.53176E-18	7.53111E-18	7.53046E-18	7.52980E-18	7.52850E-18	
NI 28 63	2.90020E+09	1.13031E-15	1.10502E-15	1.08848E-15	1.04819E-15	9.72043E-16	9.01426E-16	8.35039E-16	7.18891E-16	
NI 28 65	9.21738E+03	3.56840E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU 29 64	4.62098E+04	1.52819E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB 37 86	1.60972E+06	5.64924E-19	1.11557E-36	1.76592E-48	5.45815E-78	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 87	1.00799E+04	3.21845E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 89	4.50096E+06	1.94492E-17	9.05849E-24	5.44288E-28	1.52322E-38	1.19202E-59	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 90	8.86377E+08	6.02213E-22	5.69230E-22	5.32307E-22	4.70516E-22	3.67620E-22	2.87226E-22	2.24413E-22	1.36993E-22	
SR 38 91	3.48315E+04	4.30228E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 92	9.75604E+03	1.99820E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 93	4.50095E+02	1.01457E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 89	1.56998E+01	3.86370E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 90	2.30281E+05	1.48262E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 91	5.09667E+06	5.02820E-16	1.28722E-23	2.40891E-27	1.15406E-36	2.64871E-55	6.07908E-74	0.00000E+00	0.00000E+00	
Y 39 92	1.27440E+04	1.53942E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 94	1.12200E+03	3.28206E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 96	9.80406E+03	2.98466E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 88	7.20602E+06	7.85451E-21	8.71333E-25	2.01169E-27	5.15244E-34	3.37982E-47	2.21704E-60	1.45430E-73	0.00000E+00	
ZR 40 89	2.82249E+05	8.44647E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 93	4.74758E+13	4.04712E-20	4.04711E-20	4.04711E-20	4.04710E-20	4.04708E-20	4.04706E-20	4.04704E-20	4.04701E-20	
ZR 40 95	5.63534E+06	6.77599E-17	5.93909E-22	2.52478E-25	9.40748E-34	1.30605E-50	1.81321E-67	0.00000E+00	0.00000E+00	
ZR 40 97	6.04840E+04	1.82413E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 91	2.20888E+10	3.83306E-22	3.82169E-22	3.81412E-22	3.79528E-22	3.75789E-22	3.72086E-22	3.68419E-22	3.61194E-22	
NB 41 92	8.80746E+05	1.24005E-17	5.43568E-50	1.45588E-71	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 94	6.30134E+11	5.49398E-18	5.49341E-18	5.49303E-18	5.49207E-18	5.49017E-18	5.48826E-18	5.48636E-18	5.48255E-18	
NB 41 95	3.02684E+06	1.51325E-18	5.81266E-28	3.07150E-34	6.23463E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 96	8.28132E+04	2.92145E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 97	4.33217E+03	2.73362E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 98	3.06025E+03	8.21526E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 100	3.09994E+00	5.56775E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 93	2.84077E+11	3.31509E-20	3.31432E-20	3.31381E-20	3.31253E-20	3.30998E-20	3.30744E-20	3.30489E-20	3.29981E-20	
MO 42 99	2.41515E+05	3.93482E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 101	8.76292E+02	1.97869E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 104	2.61565E+02	6.43006E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 106	7.84813E+03	3.50947E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD 46 107	2.05134E+14	1.67781E-26	1.67780E-26	1.67780E-26	1.67780E-26	1.67780E-26	1.67780E-26	1.67780E-26	1.67779E-26	
PD 46 109	4.83704E+04	3.48474E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 106	7.34422E+05	1.41207E-19	2.21157E-58	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 108	4.10389E+09	5.56932E-16	5.48097E-16	5.42286E-16	5.28024E-16	5.00617E-16	4.74633E-16	4.49997E-16	4.04495E-16	
AG 47 110	2.15826E+07	7.00836E-14	3.35073E-15	4.41388E-16	2.77990E-18	1.10265E-22	4.37368E-27	1.73482E-31	2.72946E-40	
CD 48 109	3.99508E+07	3.07568E-20	5.95088E-21	1.99071E-21	1.23847E-22	5.39767E-25	2.26171E-27	9.47263E-30	1.66240E-34	
CD 48 111	2.92221E+03	7.13060E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 115	1.92541E+05	2.15662E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 117	1.22399E+04	6.41648E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 119	5.97541E+02	2.59938E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 111	2.42444E+05	1.00648E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 112	1.25400E+03	5.81258E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 114	4.27869E+06	1.01077E-20	2.20740E-27	8.00518E-32	6.34810E-43	3.97667E-65	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 115	1.61497E+04	1.15913E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 116	1.40998E+01	5.17442E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 117	6.95931E+03	7.44312E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 118	2.63955E+02	2.64114E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 119	1.26027E+02	2.77074E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 120	4.40093E+01	5.75133E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 122	1.00998E+01	7.86355E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 113	9.94473E+06	3.61282E-17	4.92119E-20	6.04719E-22	1.01221E-26	2.83582E-36	7.94504E-46	2.22598E-55	1.74719E-74	
SN 50 121	9.72156E+04	2.66997E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 123	1.07967E+07	3.80149E-16	8.71596E-19	1.51550E-20	6.04184E-25	9.60223E-34	1.52607E-42	2.42539E-51	6.12618E-69	
SN 50 125	8.12599E+05	4.80134E-15	4.06935E-50	1.69160E-73	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
I 53 130	4.44981E+04	2.62147E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	1.22067E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	1.11936E-17	1.16226E-68	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	2.28606E-13	8.30132E-14	4.22527E-14	7.80948E-15	2.66781E-16	9.11359E-18	3.11332E-19	3.63326E-22	
EU 63 152	4.17559E+08	2.45818E-12	2.08359E-12	1.87634E-12	1.44397E-12	8.55165E-13	5.06457E-13	2.99940E-13	1.05201E-13	
EU 63 154	2.69812E+08	2.34622E-13	1.83968E-13	1.56432E-13	1.04299E-13	4.63652E-14	2.06112E-14	9.16250E-15	1.81066E-15	
LU 71 174	1.22687E+07	5.70556E-24	2.71253E-26	7.66936E-28	1.03092E-31	1.86273E-39	3.36866E-47	6.08120E-55	1.98534E-70	
LU 71 177	1.38242E+07	2.35608E-21	2.04475E-23	8.63524E-25	3.16492E-28	4.25137E-35	5.71078E-42	7.67115E-49	1.38420E-62	
HF 72 173	8.49653E+04	5.21566E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 175	6.04840E+06	1.17828E-14	2.28753E-19	1.65240E-22	2.31735E-30	4.55744E-46	8.96294E-62	1.76271E-77	0.00000E+00	
HF 72 178	9.78261E+08	2.59439E-22	2.42606E-22	2.31996E-22	2.07456E-22	1.65889E-22	1.32650E-22	1.06072E-22	6.78238E-23	
HF 72 179	1.89384E+10	1.25690E-23	1.25256E-23	1.24967E-23	1.24247E-23	1.22820E-23	1.21410E-23	1.20016E-23	1.17275E-23	
HF 72 180	1.98723E+04	2.10195E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 181	3.66357E+06	7.84029E-14	1.39379E-21	8.49432E-27	9.20318E-40	1.08023E-65	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 182	2.84077E+14	1.29943E-28	1.29943E-28	1.29943E-28	1.29943E-28	1.29943E-28	1.29943E-28	1.29943E-28	1.29943E-28	1.29943E-28
TA 73 180	2.93458E+04	2.44068E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA 73 182	9.89362E+06	1.21282E-13	1.59668E-16	1.91792E-18	3.03303E-23	7.58478E-33	1.89675E-42	4.74326E-52	2.96631E-71	
W 74 181	1.20968E+07	1.81156E-17	7.98204E-20	2.14530E-21	2.54055E-25	3.56284E-33	4.99649E-41	7.00690E-49	1.37806E-64	
W 74 185	6.47801E+06	5.92493E-15	2.36203E-19	2.75647E-22	1.28243E-29	2.77566E-44	6.00765E-59	1.30028E-73	0.00000E+00	
W 74 187	8.59984E+04	1.16449E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 203	4.02525E+06	7.18640E-20	5.97535E-27	1.13831E-31	1.80311E-43	4.52385E-67	0.00000E+00	0.00000E+00	0.00000E+00	
HG 80 205	3.11947E+02	5.44734E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 204	1.19282E+08	8.67960E-22	5.00698E-22	3.46971E-22	1.38703E-22	2.21652E-23	3.54207E-24	5.66034E-25	1.44549E-26	
TL 81 206	2.52054E+02	1.28394E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 207	2.86188E+02	1.05977E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 203	1.86782E+05	2.71446E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 205	4.76390E+14	1.56843E-22	1.56843E-22	1.56843E-22	1.56843E-22	1.56843E-22	1.56843E-22	1.56843E-22	1.56843E-22	1.56843E-22
PB 82 207	7.95989E-01	2.71168E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)		1.07955E-09	5.54553E-11	3.40296E-11	1.11009E-11	2.31925E-12	1.03166E-12	5.83092E-13	2.23456E-13	
TOTAL (CURIES)		1.04468E-02	5.36641E-04	3.29304E-04	1.07424E-04	2.24434E-05	9.98338E-06	5.64258E-06	2.16238E-06	

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COMPONENT : CONCRETE - AXIAL DOWN - SIXTH 6 INCHES - R4
VOLUME : 9.67700E+06 CC
: ABOVE VOLUME IS FOR THE SIXTH 6 INCHES OF CONCRETE IN THE
: AXIAL DOWN DIRECTION
:
: (INTERVALS 71-73 TOTGD:R4)

NUCLIDE SYM	Z	h	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.8[illegible]233E+08	3.29018E-13	2.77730E-13	2.48060E-13	1.87[illegible]23E-13	1.06309E-13	6.04291E-14	3.43496E-14	1.10987E-14
HE	2	6	8.09751E-01	1.92384E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	7.05242E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	5.03940E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	1.84529E-23	1.84529E-23	1.84528E-23	1.84528E-23	1.84528E-23	1.84527E-23	1.84527E-23	1.84526E-23
B	5	12	1.99754E-02	9.73076E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	1.65815E-16	1.65755E-16	1.65715E-16	1.65615E-16	1.65415E-16	1.65215E-16	1.65016E-16	1.64617E-16
F	9	20	1.10023E+01	2.60659E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	3.44303E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	1.34059E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	1.70101E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	1.62424E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	5.92586E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	2.14855E-14	1.84562E-37	7.74117E-53	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	1.72787E-14	3.07429E-18	9.72523E-21	5.47391E-27	1.73409E-39	5.49344E-52	1.74030E-64	0.00000E+00
S	16	37	3.04012E+02	1.60962E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	1.59333E-17	1.59332E-17	1.59331E-17	1.59329E-17	1.59326E-17	1.59322E-17	1.59319E-17	1.59312E-17
AR	18	37	3.02684E+06	6.60539E-13	2.53725E-22	1.34072E-28	2.72144E-44	1.12118E-75	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	3.72888E-15	3.70015E-15	3.68112E-15	3.63397E-15	3.54147E-15	3.45133E-15	3.36348E-15	3.19444E-15
AR	18	41	6.60140E+03	8.08070E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	2.16161E-20	2.16161E-20	2.16161E-20	2.16161E-20	2.16161E-20	2.16161E-20	2.16161E-20	2.16161E-20
K	19	42	4.47192E+04	4.62849E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	4.61113E-15	4.61101E-15	4.61093E-15	4.61073E-15	4.61033E-15	4.60993E-15	4.60953E-15	4.60873E-15
CA	20	45	1.42623E+07	1.43296E-12	1.43881E-14	6.69653E-16	3.12945E-19	6.83431E-26	1.49253E-32	3.25982E-39	1.55458E-52
CA	20	47	3.91608E+05	7.26006E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	1.88540E-13	2.21169E-17	5.29997E-20	1.48990E-26	1.17733E-39	9.30317E-53	7.35142E-66	0.00000E+00
SC	21	47	2.96217E+05	1.18599E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	3.65627E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	1.38644E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	6.50169E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	2.07616E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.13179E-19	1.13410E-20	2.44665E-21	5.28910E-23	2.47170E-26	1.15508E-29	5.39790E-33	1.17884E-39
V	23	52	2.02084E+02	5.48326E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	8.73086E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	1.16066E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	8.55928E-14	1.12190E-25	1.34368E-33	2.10946E-53	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	7.59107E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	1.02967E-22	1.02967E-22	1.02967E-22	1.02966E-22	1.02966E-22	1.02966E-22	1.02966E-22	1.02966E-22
MN	25	54	2.61565E+07	9.02426E-14	7.34245E-15	1.37867E-15	2.10626E-17	4.91604E-21	1.14738E-24	2.67797E-28	1.45882E-35
MN	25	56	9.29152E+03	1.25789E-10	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.40229E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.99961E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.80894E-11	8.12821E-12	4.76843E-12	1.25698E-12	8.73434E-14	6.06921E-15	4.21730E-16	2.03630E-18
FE	26	59	3.89409E+06	1.93050E-13	9.26936E-21	1.22451E-25	7.76728E-38	3.12499E-62	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	2.40994E-28	2.40989E-28	2.40985E-28	2.40977E-28	2.40960E-28	2.40943E-28	2.40927E-28	2.40893E-28
FE	26	61	3.60001E+02	2.37413E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	7.70591E-19	4.71246E-20	7.31472E-21	6.96342E-23	6.25634E-27	5.63722E-31	5.07944E-35	4.12387E-43
CO	27	58	6.13405E+06	2.53638E-16	5.72955E-21	4.57857E-24	8.26504E-32	2.69316E-47	8.77566E-63	2.85955E-78	0.00000E+00
CO	27	60	1.65983E+08	4.39863E-13	2.96222E-13	2.27589E-13	1.17756E-13	3.15247E-14	8.43952E-15	2.25936E-15	1.61927E-16
CO	27	61	5.94007E+03	2.33527E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	1.15098E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	6.49612E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	1.24079E-18	1.24075E-18	1.24073E-18	1.24068E-18	1.24057E-18	1.24046E-18	1.24036E-18	1.24014E-18
NI	28	63	2.90020E+09	1.89680E-16	1.85436E-16	1.82660E-16	1.75900E-16	1.63121E-16	1.51271E-16	1.40281E-16	1.20639E-16
NI	28	65	9.21738E+03	8.16303E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	2.52241E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.60972E+06	1.34871E-19	2.66334E-37	4.19210E-49	1.30308E-78	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	7.62954E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.50096E+06	4.52274E-18	2.30648E-24	1.26570E-28	3.54213E-39	2.77404E-60	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	1.42000E-22	1.31867E-22	1.25517E-22	1.10947E-22	8.66840E-23	6.77273E-23	5.29161E-23	3.23026E-23
SR	38	91	3.48315E+04	1.01967E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	4.77855E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.50095E+02	2.43357E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	9.25857E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	2.44192E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	1.17683E-18	3.01270E-24	5.63797E-28	2.70104E-37	6.19919E-56	1.42278E-74	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	3.63523E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	7.82199E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	7.16541E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	1.82305E-21	2.02239E-25	4.66919E-28	1.19589E-34	7.84464E-48	5.14581E-61	3.37546E-74	0.00000E+00
ZR	40	89	2.82249E+05	1.98692E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	6.72849E-21	6.72848E-21	6.72847E-21	6.72846E-21	6.72843E-21	6.72840E-21	6.72836E-21	6.72830E-21
ZR	40	95	5.63534E+06	1.62633E-17	1.42547E-22	6.05983E-26	2.25793E-34	3.13472E-51	4.35196E-68	0.00000E+00	0.00000E+00
ZR	40	97	6.04849E+04	3.78269E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	9.16275E-23	9.13557E-23	9.11749E-23	9.07246E-23	8.98306E-23	8.89454E-23	8.80690E-23	8.63419E-23
NB	41	92	8.80746E+05	2.94050E-18	1.28895E-50	3.45228E-72	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	9.42536E-19	9.42437E-19	9.42372E-19	9.42208E-19	9.41882E-19	9.41555E-19	9.41228E-19	9.40575E-19
NB	41	95	3.02684E+06	3.53472E-19	1.35775E-28	7.17457E-35	1.45632E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28152E+04	6.89196E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	6.41425E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	1.95503E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	1.33610E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	7.16243E-21	7.16077E-21	7.15967E-21	7.15691E-21	7.15141E-21	7.14590E-21	7.14040E-21	7.12941E-21
MO	42	99	2.41515E+05	7.35856E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	3.62285E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	1.52618E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84813E+03	8.20057E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.05134E+14	3.93656E-27	3.93656E-27	3.93655E-27	3.93655E-27	3.93655E-27	3.93655E-27	3.93654E-27	3.93653E-27
PD	46	109	4.83704E+04	8.16817E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34422E+05	3.39019E-20	5.30968E-59	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10589E+09	9.31963E-17	9.17179E-17	9.07454E-17	8.83589E-17	8.37726E-17	7.94244E-17	7.53019E-17	6.76870E-17
AG	47	110	2.15826E+07	1.22265E-14	5.84460E-16	7.69904E-17	4.84891E-19	1.92333E-23	7.62891E-28	3.02601E-32	4.76078E-41
CD	48	109	3.99508E+07	7.20278E-21	1.39361E-21	4.66193E-22	3.01740E-23	1.26405E-25	5.29542E-28	2.21835E-30	3.89569E-35
CD	48	111	2.92221E+03	1.68055E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	5.14797E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22389E+04	1.54048E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	8.64163E-25	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42444E+05	2.40319E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.25400E+03	1.36142E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	2.37853E-21	5.19443E-28	1.88377E-32	1.49194E-43	9.35785E-66	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	2.71614E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.40998E+01	1.22536E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.95931E+03	1.74760E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63955E+02	6.29501E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	6.52959E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.40093E+01	1.38020E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.00998E+01	1.88793E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	113	9.94473E+06	7.79617E-18	1.06195E-20	1.30494E-22	2.18426E-27	6.11948E-37	1.71448E-46	4.80332E-56	3.77070E-75
SN	50	121	9.72156E+04	4.56632E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	6.53176E-17	1.49759E-19	2.60395E-21	1.03812E-25	1.64987E-34	2.62211E-43	4.16730E-52	1.05261E-69
SN	50	125	8.12599E+05	8.20407E-16	6.95332E-51	2.89045E-74	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

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I 53 130	4.44981E+04	6.12976E	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	2.83961E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	2.68743E-18	2.79644E-69	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	3.95742E-14	1.43705E-14	7.31442E-15	1.35191E-15	4.61829E-17	1.57766E-18	5.38950E-20	6.28958E-23	
EU 63 152	4.17559E+08	4.00814E-13	3.46023E-13	3.08453E-13	2.37375E-13	1.40581E-13	8.32567E-14	4.93073E-14	1.72940E-14	
EU 63 154	2.69812E+08	3.91066E-14	3.06637E-14	2.60739E-14	1.73845E-14	7.72810E-15	3.43545E-15	1.52720E-15	3.01799E-16	
LU 71 174	1.22687E+07	1.30333E-24	6.19626E-27	1.75192E-28	2.35494E-32	4.25506E-40	7.68821E-48	1.38914E-55	4.53514E-71	
LU 71 177	1.38242E+07	5.51853E-22	4.78932E-24	2.02259E-25	7.41302E-29	9.95777E-36	1.33761E-42	1.79678E-49	3.24214E-63	
HF 72 173	8.49653E+04	1.25221E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 175	6.04840E+06	1.96830E-15	3.82129E-20	2.76032E-23	3.87109E-31	7.61313E-47	1.49725E-62	2.94458E-78	0.00000E+00	
HF 72 177	9.78261E+08	6.11279E-23	5.71619E-23	5.46619E-23	4.88799E-23	3.90860E-23	3.12545E-23	2.49922E-23	1.59804E-23	
HF 72 178	1.89384E+10	2.95155E-24	2.94134E-24	2.93456E-24	2.91766E-24	2.88415E-24	2.85103E-24	2.81829E-24	2.75394E-24	
HF 72 180	1.98723E+04	4.95926E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 181	3.66357E+06	1.36221E-14	2.26527E-22	1.47584E-27	1.59900E-40	1.87684E-66	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 182	2.84077E+14	3.07477E-29	3.07477E-29	3.07477E-29	3.07477E-29	3.07476E-29	3.07476E-29	3.07476E-29	3.07475E-29	3.07475E-29
TA 73 180	2.93458E+04	5.85334E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA 73 182	9.89362E+06	2.16717E-14	2.85308E-17	3.42711E-19	5.41967E-24	1.35531E-33	3.38927E-43	8.47566E-53	5.30046E-72	
W 74 181	1.20968E+07	4.34918E-18	1.98632E-20	5.15041E-22	6.09933E-26	8.55363E-34	1.19955E-41	1.68221E-49	3.30844E-65	
W 74 185	6.47801E+06	1.02573E-15	4.08915E-20	4.77200E-23	2.22015E-30	4.80523E-45	1.04004E-59	2.25104E-74	0.00000E+00	
W 74 187	8.59984E+04	2.02089E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 203	4.02525E+06	1.70305E-20	1.41695E-27	2.69759E-32	4.27305E-44	1.07207E-67	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 205	3.11947E+02	1.30114E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 204	1.19222E+08	2.04792E-22	1.18138E-22	8.18663E-23	3.27264E-23	5.22979E-24	8.35736E-25	1.33553E-25	3.41056E-27	
TL 81 206	2.52054E+02	3.04876E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 207	2.86188E+02	2.50571E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 203	1.86782E+05	6.51695E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 205	4.76390E+14	3.76407E-23	3.76407E-23	3.76407E-23	3.76407E-23	3.76407E-23	3.76407E-23	3.76407E-23	3.76406E-23	
PB 82 207	7.95989E-01	6.49847E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)	1.79176E-10	9.12086E-12	5.59679E-12	1.82658E-12	3.82115E-13	1.70106E-13	9.62369E-14	3.70327E-14		
TOTAL (CURIES)	1.73388E-03	8.82625E-05	5.41602E-05	1.76758E-05	3.69772E-06	1.64612E-06	9.31285E-07	3.58366E-07		

COMPONENT : CONCRETE - AXIAL DOWN - SEVENTH 6 INCHES - R4
VOLUME : 9.67700E+06 CC
: ABOVE VOLUME IS FOR THE SEVENTH 6 INCHES OF CONCRETE IN THE
: AXIAL DOWN DIRECTION
:
: (INTERVALS 74-76 TOTGDNR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	6.10447E-14	5.15289E-14	4.60242E-14	3.46995E-14	1.97242E-14	1.12118E-14	6.37308E-15	2.05921E-15
HE	2	6	8.09751E-01	4.54445E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	1.30896E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	1.13555E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	4.05132E-24	4.05132E-24	4.05131E-24	4.05131E-24	4.05130E-24	4.05129E-24	4.05128E-24	4.05125E-24
B	5	12	1.99754E-02	1.80599E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	3.08026E-17	3.07914E-17	3.07840E-17	3.07654E-17	3.07282E-17	3.06911E-17	3.06540E-17	3.05800E-17
F	9	20	1.10023E+01	6.20341E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	8.01921E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	2.49324E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	3.93861E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	3.10265E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	1.33903E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	4.86990E-15	4.18329E-38	1.75462E-53	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	3.21114E-15	5.71337E-19	1.80737E-21	1.01729E-27	3.22270E-40	1.02092E-52	3.23424E-65	0.00000E+00
S	16	37	3.04012E+02	3.75739E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	2.97990E-18	2.97988E-18	2.97987E-18	2.97983E-18	2.97977E-18	2.97970E-18	2.97963E-18	2.97950E-18
AR	18	37	3.02684E+06	1.52200E-13	5.84629E-23	3.08926E-29	6.27059E-45	2.58339E-76	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	7.40644E-16	7.34938E-16	7.31158E-16	7.21793E-16	7.03421E-16	6.85517E-16	6.68068E-16	6.34492E-16
AR	18	41	6.60140E+03	1.87092E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	4.01266E-21	4.01266E-21	4.01266E-21	4.01266E-21	4.01266E-21	4.01266E-21	4.01266E-21	4.01266E-21
K	19	42	4.47192E+04	8.61026E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	8.54058E-16	8.54036E-16	8.54021E-16	8.53984E-16	8.53910E-16	8.53836E-16	8.53762E-16	8.53614E-16
CA	20	45	1.42623E+07	2.66663E-13	2.67751E-15	1.24617E-16	5.82365E-20	1.27181E-26	2.77749E-33	6.06571E-40	2.89295E-53
CA	20	47	3.91608E+05	1.34473E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	3.51533E-14	4.12372E-18	9.88182E-21	2.77792E-27	2.19513E-40	1.73458E-53	1.37068E-66	0.00000E+00
SC	21	47	2.96217E+05	2.69234E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	8.65167E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	3.19793E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	1.56286E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	3.85936E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	2.72201E-20	2.72756E-21	5.88434E-22	1.27206E-23	5.94456E-27	2.77804E-30	1.29822E-33	2.83517E-40
V	23	52	2.02084E+02	1.01856E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	2.04416E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	2.79065E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	1.61717E-14	2.11969E-26	2.53871E-34	3.98558E-54	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	1.75511E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	2.47639E-23	2.47639E-23	2.47639E-23	2.47639E-23	2.47638E-23	2.47638E-23	2.47637E-23	2.47636E-23
MN	25	54	2.61565E+07	2.05381E-14	1.67105E-15	3.13769E-16	4.79359E-18	1.11883E-21	2.61130E-25	6.09474E-29	3.32810E-36
MN	25	56	9.29152E+03	2.34378E-11	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	3.26746E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	4.67511E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	3.35149E-12	1.50594E-12	8.83465E-13	2.32885E-13	1.61824E-14	1.12447E-15	7.81355E-17	3.77272E-19
FE	26	59	3.89409E+06	3.59905E-14	1.72810E-21	2.28287E-26	1.44806E-38	5.82595E-63	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	5.79341E-29	5.79329E-29	5.79321E-29	5.79301E-29	5.79261E-29	5.79221E-29	5.79181E-29	5.79100E-29
FE	26	61	3.60001E+02	5.70974E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	1.85288E-19	1.13311E-20	1.75882E-21	1.66954E-23	1.50433E-27	1.35546E-31	1.22135E-35	9.91532E-44
CO	27	58	6.13405E+06	5.76224E-17	1.30166E-21	1.04018E-24	1.87768E-32	6.11842E-48	1.99369E-63	6.49642E-79	0.00000E+00
CO	27	60	1.65983E+08	8.22410E-14	5.53845E-14	4.25522E-14	2.20169E-14	5.89417E-15	1.57794E-15	4.22431E-16	3.02754E-17
CO	27	61	5.94007E+03	5.40447E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	1.72273E-18	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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CD	27	64	2.99999E-01	1.56229E-22	0.99999E+00	0.00000E+00	0.00000E+00	0.00000E+0.	.000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	2.30357E-19	2.30351E-19	2.30347E-19	2.30337E-19	2.30317E-19	.30297E-19	2.30277E-19	2.30237E-19
NI	28	63	2.98820E+09	3.57435E-17	3.49438E-17	3.44207E-17	3.31468E-17	3.07387E-17	2.85056E-17	2.64347E-17	2.27533E-17
NI	28	65	9.21738E+03	1.89068E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	4.69120E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.68972E+06	3.22731E-20	6.37507E-38	1.00312E-49	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	1.81398E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.58096E+06	1.05758E-18	4.92569E-25	2.95965E-29	8.28275E-40	6.48669E-61	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	3.36064E-23	3.12082E-23	2.97053E-23	2.62571E-23	2.05150E-23	1.60386E-23	1.25213E-23	7.64486E-24
SR	38	91	3.48516E+04	2.42388E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	1.14675E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.58095E+02	5.84799E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	2.22306E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	4.53300E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	2.76748E-19	7.68479E-25	1.32585E-28	6.35188E-38	1.45783E-56	3.34588E-75	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	8.61401E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	1.86877E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	1.72325E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.28602E+06	4.25389E-22	4.71902E-26	1.08950E-28	2.79649E-35	1.83046E-48	1.20072E-61	7.87627E-75	0.00000E+00
ZR	40	89	2.82249E+05	4.69354E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	1.25969E-21	1.25968E-21	1.25968E-21	1.25968E-21	1.25967E-21	1.25967E-21	1.25966E-21	1.25965E-21
ZR	40	95	5.63634E+06	3.91037E-18	3.42740E-23	1.45703E-26	5.62899E-35	7.53713E-52	1.04639E-68	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	8.28203E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	2.19506E-23	2.16855E-23	2.18422E-23	2.17343E-23	2.15201E-23	2.13081E-23	2.10981E-23	2.06844E-23
NB	41	92	8.80746E+05	6.99635E-19	3.06680E-51	8.21404E-73	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	1.81073E-19	1.81054E-19	1.81042E-19	1.81010E-19	1.80945E-19	1.80885E-19	1.80822E-19	1.80696E-19
NB	41	95	3.02684E+06	8.29812E-20	3.18747E-29	1.68430E-35	3.41886E-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	1.63181E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	1.51171E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	4.66459E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	3.21201E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	1.60518E-21	1.60481E-21	1.60457E-21	1.60395E-21	1.60271E-21	1.60148E-21	1.60025E-21	1.59778E-21
MO	42	99	2.41515E+05	1.50843E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	7.31468E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	5.63294E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84813E+03	1.92469E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.05134E+14	9.27817E-28	9.27817E-28	9.27817E-28	9.27816E-28	9.27815E-28	9.27814E-28	9.27813E-28	9.27811E-28
PD	46	109	4.83704E+04	1.92361E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34622E+05	8.15358E-21	1.27702E-59	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10389E+09	1.75378E-17	1.72596E-17	1.70766E-17	1.66275E-17	1.57644E-17	1.49462E-17	1.41704E-17	1.27375E-17
AG	47	110	2.15826E+07	2.37947E-15	1.13763E-16	1.49859E-17	9.43825E-20	3.74371E-24	1.48495E-28	5.89004E-33	9.26704E-42
CD	48	109	3.99508E+07	1.69475E-21	3.27902E-22	1.09691E-22	7.09967E-24	2.97419E-26	1.24596E-28	5.21956E-31	9.16007E-36
CD	48	111	2.92221E+03	3.97587E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	1.23171E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22399E+04	3.70486E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	2.07836E-25	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42446E+05	5.75123E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.28400E+03	3.20382E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	5.61987E-22	1.22731E-28	4.45067E-33	3.52509E-44	2.21102E-66	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	6.39658E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.40998E+01	2.91082E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.95931E+03	4.12125E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63955E+02	1.58409E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	1.54465E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.49093E+01	3.31813E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.08098E+01	4.54057E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	113	9.94473E+06	1.74678E-18	2.37937E-21	2.92378E-23	4.89397E-28	1.57111E-37	3.84139E-47	1.07621E-56	8.44756E-76
SN	50	121	9.72156E+04	8.75089E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	1.25749E-17	2.88314E-20	5.01311E-22	1.99857E-26	3.17631E-35	5.04807E-44	8.02185E-53	2.02647E-70
SN	50	125	8.12599E+05	1.57087E-16	1.33138E-51	5.53445E-75	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
I	53	130	4.44981E+04	1.43896E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE	54	133	4.56018E+05	6.64410E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS	55	132	5.58990E+05	6.46341E-19	6.71116E-70	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS	55	134	6.47801E+07	7.65713E-15	2.78052E-15	1.41525E-15	2.61578E-16	8.93583E-18	3.05259E-19	1.04280E-20	1.21696E-23
EU	63	152	4.17559E+08	7.42808E-14	6.34781E-14	5.71640E-14	4.39915E-14	2.60532E-14	1.54295E-14	9.13788E-15	3.20501E-15
EU	63	154	2.69812E+08	7.33454E-15	5.75104E-15	4.89022E-15	3.26050E-15	1.44942E-15	6.44527E-16	2.86429E-16	5.66030E-17
LU	71	174	1.22687E+07	3.00124E-25	1.42684E-27	4.03424E-29	5.42283E-33	9.79835E-41	1.77040E-48	3.19884E-56	1.04433E-71
LU	71	177	1.38242E+07	1.29885E-22	1.12722E-24	4.76039E-26	1.74474E-29	2.34367E-36	3.14820E-43	4.22891E-50	7.63075E-64
HF	72	173	8.49653E+04	3.01162E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF	72	175	6.04840E+06	3.69857E-16	7.18048E-21	3.18683E-24	7.27406E-32	1.43056E-47	2.81343E-63	5.53306E-79	0.00000E+00
HF	72	178	9.78261E+08	1.44598E-23	1.35216E-23	1.29303E-23	1.15625E-23	9.24578E-24	7.39324E-24	5.91188E-24	3.78014E-24
HF	72	179	1.89384E+10	6.96188E-25	6.93780E-25	6.92179E-25	6.88193E-25	6.80298E-25	6.72478E-25	6.64755E-25	6.49575E-25
HF	72	180	1.98723E+04	1.17439E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF	72	181	3.66357E+06	2.64343E-15	4.39587E-23	2.86394E-28	3.10254E-41	3.64211E-67	0.00000E+00	0.00000E+00	0.00000E+00
HF	72	182	2.84077E+14	7.29949E-30	7.29949E-30	7.29949E-30	7.29949E-30	7.29948E-30	7.29948E-30	7.29947E-30	7.29946E-30
TA	73	180	2.93458E+04	1.48638E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA	73	182	9.89362E+06	4.29729E-15	5.65739E-18	6.79562E-20	1.07467E-24	2.68746E-34	6.72060E-44	1.68064E-53	1.05103E-72
W	74	181	1.20968E+07	1.04597E-18	4.60871E-21	1.23866E-22	1.40688E-26	2.05713E-34	2.88490E-42	4.04569E-50	7.95674E-66
W	74	185	6.47801E+06	1.98517E-16	7.91406E-21	9.23564E-24	4.29684E-31	9.29995E-46	2.01288E-60	4.35662E-75	0.00000E+00
W	74	187	8.59984E+04	3.91784E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG	80	205	4.02525E+06	4.04896E-21	3.36589E-28	6.41204E-33	1.01568E-44	2.54826E-68	0.00000E+00	0.00000E+00	0.00000E+00
HG	80	205	3.11947E+02	3.11487E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL	81	204	1.19282E+08	4.85035E-23	2.79801E-23	1.93895E-23	7.75102E-24	1.23864E-24	1.97938E-25	3.16312E-26	8.07769E-28
TL	81	206	2.52054E+02	7.25987E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL	81	207	2.86188E+02	5.96395E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB	82	203	1.86782E+05	1.56733E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB	82	205	4.76390E+14	9.04946E-24	9.04946E-24	9.04946E-24	9.04946E-24	9.04945E-24	9.04944E-24	9.04943E-24	9.04943E-24
PB	82	207	7.95989E-01	1.56035E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
			TOTAL (CURIES/CC)	3.34850E-11	1.69101E-12	1.03763E-12	3.38779E-13	7.09502E-14	3.16052E-14	1.78944E-14	6.90901E-15
			TOTAL (CURIES)	3.24015E-04	1.63639E-05	1.00412E-05	3.27337E-06	6.86586E-07	3.05844E-07	1.73164E-07	6.68585E-08

FORM (AJ)292 12 3546

COMPONENT : CONCRETE - AXIAL DOWN /N 6 INCHES - R4
VOLUME : 9.67700E+06 CC
: ABOVE VOLUME IS FOR THE EIGHTH 6 INCHES OF CONCRETE IN THE
: AXIAL DOWN DIRECTION
:
: (INTERVALS 77-79 TOTGDNPS)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	SHUTDOWN	3 YEARS	CONCENTRATION (CURIES/CC) AT TIME 3 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	1.32326E-14	1.11699E-14	9.97661E-15	7.52178E-15	4.27559E-15	2.43037E-15	1.38149E-15	4.46372E-16
HE	2	6	0.00761E-01	9.89206E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	2.83789E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	2.57793E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	9.18285E-25	9.18284E-25	9.18283E-25	9.18282E-25	9.18279E-25	9.18277E-25	9.18274E-25	9.18269E-25
B	5	12	1.99754E-02	3.91493E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	6.67896E-18	6.67654E-18	6.67492E-18	6.67089E-18	6.66283E-18	6.65478E-18	6.64674E-18	6.63078E-18
F	9	20	1.10023E+01	1.48001E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	1.87660E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	5.40850E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	9.16984E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	6.80055E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	3.04778E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	1.11181E-15	9.55050E-39	4.00581E-54	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	6.96600E-16	1.23942E-19	3.92078E-22	2.20684E-26	6.99107E-41	2.21471E-55	7.01612E-66	0.00000E+00
S	16	37	3.04012E+02	8.81018E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	6.47063E-19	6.47058E-19	6.47055E-19	6.47048E-19	6.47034E-19	6.47019E-19	6.47005E-19	6.46976E-19
AR	18	37	3.02684E+06	3.52783E-14	1.35511E-23	7.16058E-30	1.45348E-45	5.98802E-77	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	1.63566E-16	1.62306E-16	1.61471E-16	1.59403E-16	1.55346E-16	1.51392E-16	1.47538E-16	1.40123E-16
AR	18	41	6.60140E+03	4.35557E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	6.10146E+16	8.69854E-22	8.69854E-22	8.69854E-22	8.69854E-22	8.69854E-22	8.69854E-22	8.69854E-22	8.69854E-22
K	19	42	4.47192E+04	1.86693E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	1.85118E-16	1.85113E-16	1.85110E-16	1.85102E-16	1.85086E-16	1.85070E-16	1.85054E-16	1.85022E-16
CA	20	45	1.42623E+07	5.78268E-14	5.80628E-16	2.70236E-17	1.26288E-20	2.75797E-27	6.02308E-34	1.31537E-40	6.27347E-54
CA	20	47	3.91608E+05	2.91475E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	7.62627E-15	8.94612E-19	2.14379E-21	6.02651E-28	4.76215E-41	3.76305E-54	2.97359E-67	0.00000E+00
SC	21	47	2.96217E+05	6.15346E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	2.05366E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	7.42041E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	3.76228E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	3.48315E+02	8.36975E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	6.55585E-21	6.56921E-22	1.41722E-22	3.06369E-24	1.43172E-27	6.69078E-31	3.12671E-34	6.82839E-41
V	23	52	2.02084E+02	2.20884E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.1992.E+02	4.80624E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	6.71943E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	3.52098E-15	4.61510E-27	5.52740E-35	8.67757E-55	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	4.08038E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	5.96429E-24	5.96428E-24	5.96428E-24	5.96427E-24	5.96426E-24	5.96425E-24	5.96424E-24	5.96422E-24
MN	25	54	2.61565E+07	4.70688E-15	3.82963E-16	7.19068E-17	1.09857E-18	2.56408E-22	5.98443E-26	1.39676E-29	7.60884E-37
MN	25	56	9.29152E+03	5.08237E-12	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	7.65047E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	1.12299E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	7.26461E-13	3.26425E-13	1.91498E-13	5.04796E-14	3.50767E-15	2.43737E-16	1.69365E-17	8.17766E-20
FE	26	59	3.89409E+06	7.80460E-15	3.74748E-22	4.95044E-27	3.14015E-39	1.26337E-63	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	1.39475E-29	1.39472E-29	1.39470E-29	1.39465E-29	1.39456E-29	1.39446E-29	1.39436E-29	1.39417E-29
FE	26	61	3.60001E+02	1.37512E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	4.46163E-20	2.72869E-21	4.23514E-22	4.02016E-24	3.62234E-28	3.26388E-32	2.94094E-36	2.38767E-44
CO	27	58	6.13405E+06	1.31818E-17	2.97771E-22	2.37953E-25	4.29543E-33	1.39967E-48	4.56081E-64	0.00000E+00	0.00000E+00
CO	27	60	1.65983E+08	1.78375E-14	1.20125E-14	9.22928E-15	4.77531E-15	1.27840E-15	3.42243E-16	9.16224E-17	6.56652E-18
CO	27	61	5.94007E+03	1.25783E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	6.46063E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	3.76258E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	4.99370E-20	4.99357E-20	4.99349E-20	4.99326E-20	4.99283E-20	4.99240E-20	4.99196E-20	4.99110E-20
NI	28	63	2.90020E+09	7.78394E-18	7.60979E-18	7.49586E-18	7.21844E-18	6.69403E-18	6.20772E-18	5.75674E-18	4.95069E-18
NI	28	65	9.21738E+03	4.40393E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	1.61710E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.60972E+06	7.73733E-21	1.52792E-38	2.40495E-50	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	4.32369E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.50096E+06	2.48443E-19	1.15713E-25	6.95273E-30	1.94576E-40	1.52384E-61	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	7.97800E-24	7.40869E-24	7.05190E-24	6.23331E-24	4.87016E-24	3.80512E-24	2.97298E-24	1.81485E-24
SR	38	91	3.48515E+04	5.77640E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	2.75644E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.50095E+02	1.40741E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	5.34641E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	9.82677E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	6.53400E-20	1.67271E-27	3.13031E-29	1.49967E-38	3.44192E-57	7.89958E-76	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	2.04706E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	4.47393E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	4.15022E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	9.97065E-23	1.10608E-26	2.55367E-29	6.54059E-36	4.29039E-49	2.81434E-62	1.84611E-75	0.00000E+00
ZR	40	89	2.82249E+05	1.11247E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	2.73839E-22	2.73838E-22	2.73838E-22	2.73838E-22	2.73836E-22	2.73835E-22	2.73834E-22	2.73831E-22
ZR	40	95	5.63534E+06	9.41571E-19	8.25279E-24	3.50836E-27	1.30724E-35	1.81485E-52	2.51959E-69	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	1.81566E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	5.26808E-24	5.25245E-24	5.24206E-24	5.21616E-24	5.16476E-24	5.11387E-24	5.06348E-24	4.96418E-24
NB	41	92	8.80746E+05	1.66928E-19	7.31717E-52	1.99981E-73	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	3.93533E-20	3.93492E-20	3.93464E-20	3.93396E-20	3.93259E-20	3.93123E-20	3.92987E-20	3.92714E-20
NB	41	95	3.02684E+06	1.95622E-20	7.61422E-30	3.97063E-36	8.05971E-52	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	3.87549E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	3.57595E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	1.11538E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	7.73300E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	3.53244E-22	3.53163E-22	3.53108E-22	3.52972E-22	3.52701E-22	3.52429E-22	3.52158E-22	3.51616E-22
MO	42	90	2.41515E+05	3.29673E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	1.59566E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	8.66911E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84813E+03	4.53432E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.05134E+14	2.19502E-28	2.19502E-28	2.19502E-28	2.19502E-28	2.19502E-28	2.19502E-28	2.19502E-28	2.19501E-28
PD	46	109	4.83704E+04	4.54769E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34422E+05	1.96375E-21	3.87561E-60	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10389E+09	3.80558E-18	3.74521E-18	3.70550E-18	3.60805E-18	3.42077E-18	3.24522E-18	3.07488E-18	2.76396E-18
AG	47	110	2.15826E+07	5.17516E-16	2.47426E-17	3.25933E-18	2.05275E-20	8.14228E-25	3.22964E-29	1.28104E-33	2.01551E-42
CD	48	109	3.99508E+07	4.00317E-22	7.74541E-23	2.59102E-23	1.67702E-24	7.02537E-27	2.94310E-29	1.23292E-31	2.16371E-36
CD	48	111	2.92221E+03	9.43618E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	2.95268E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22399E+04	8.92287E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	5.00564E-26	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42444E+05	1.37898E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.25400E+03	7.56914E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	1.33234E-22	2.90966E-29	1.05519E-33	8.35714E-45	5.24181E-67	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	1.51136E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.40998E+01	6.93288E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.95931E+03	9.75619E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63955E+02	3.60117E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	3.66574E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.46093E+01	7.98869E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.00998E+01	1.09358E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	113	9.94473E+06	3.83945E-19	5.22990E-22	6.62653E-24	1.07570E-28	3.01372E-38	8.44344E-48	2.36553E-57	1.85679E-76
SN	50	121	9.72156E+04	1.90206E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	2.74645E-18	6.29696E-21	1.05589E-22	4.36501E-27	6.93726E-36	1.10253E-44	1.75224E-53	4.42594E-71
SN	50	125	8.12599E+05	3.41306E-17	2.89272E-52	1.20248E-75	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

I 53 130	4.44981E+04	3.38966E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	1.56201E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 132	5.58990E+05	1.55668E-19	1.61635E-70	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.67801E+07	1.66673E-15	6.04509E-16	3.07688E-16	5.68693E-17	1.94273E-18	6.63659E-20	2.26714E-21	2.66577E-24	
EU 63 152	4.17559E+08	1.61005E-14	1.37590E-14	1.23904E-14	9.53526E-15	5.66[illegible]E-15	3.36639E-15	1.98065E-15	6.99693E-16	
EU 63 154	2.69612E+08	1.59111E-15	1.24759E-15	1.00005E-15	7.07513E-16	3.1[illegible]E-16	1.39776E-16	6.21362E-17	1.22791E-17	
LU 71 174	1.22687E+07	6.95711E-26	3.50754E-28	9.35169E-30	1.25706E-33	2.27[illegible]E-41	4.16394E-49	7.41516E-57	2.42084E-72	
LU 71 177	1.38240E+07	3.06922E-23	2.66366E-25	1.12489E-26	4.12287E-30	5.53817E-37	7.43930E-44	9.99305E-51	1.80317E-64	
HF 72 173	8.49655E+04	7.25335E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 175	6.04840E+06	8.02523E-17	1.55803E-21	1.12565E-24	1.67834E-32	3.10406E-48	6.10466E-64	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 178	9.78261E+08	3.43171E-24	3.20966E-24	3.06871E-24	2.74611E-24	2.19428E-24	1.75662E-24	1.40306E-24	8.97134E-25	
HF 72 179	1.89384E+10	1.66816E-25	1.56246E-25	1.63867E-25	1.62923E-25	1.61052E-25	1.59203E-25	1.57374E-25	1.53781E-25	
HF 72 180	1.98723E+04	2.78962E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 181	3.66357E+06	5.74718E-16	9.55722E-24	6.22660E-29	6.74622E-42	7.91844E-68	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 182	2.84077E+14	1.73767E-30	1.73767E-30	1.73767E-30	1.73767E-30	1.73767E-30	1.73767E-30	1.73767E-30	1.73767E-30	1.73767E-30
TA 73 180	2.93458E+04	3.58622E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA 73 182	9.89362E+06	9.35829E-16	1.23202E-18	1.47989E-20	2.34052E-25	5.85252E-35	1.46356E-44	3.65996E-54	2.28885E-73	
W 74 181	1.20968E+07	2.51910E-19	1.10996E-21	2.98318E-23	5.53281E-27	4.95438E-35	6.94796E-43	9.74368E-51	1.91629E-66	
W 74 185	6.47801E+06	4.32111E-17	1.72265E-21	2.01031E-24	9.35290E-32	2.02431E-46	4.38143E-61	9.48303E-76	0.00000E+00	
W 74 187	8.59984E+04	8.51872E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 203	4.02525E+06	9.64659E-22	8.02095E-29	1.52800E-33	2.42039E-45	6.07254E-69	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 205	3.11947E+02	7.47078E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 204	1.19282E+08	1.15240E-23	6.64781E-24	4.60676E-24	1.84157E-24	2.94289E-25	4.70284E-26	7.51528E-27	1.91919E-28	
TL 81 206	2.52054E+02	1.73290E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 207	2.86188E+02	1.41395E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 203	1.86782E+05	3.77479E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 205	4.76390E+14	2.17881E-24	2.17881E-24	2.17881E-24	2.17881E-24	2.17881E-24	2.17881E-24	2.17881E-24	2.17881E-24	2.17881E-24
PB 82 207	7.95989E-01	3.75249E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)		7.27153E-12	5.66575E-13	2.24930E-13	7.34397E-14	1.53830E-14	6.85387E-15	3.88164E-15	1.50022E-15	
TOTAL (CURIES)		7.03666E-05	3.54[illegible]E-06	2.17665E-06	7.10676E-07	1.48862E-07	6.63249E-08	3.75626E-08	1.45176E-08	

COMPONENT : CONCRETE - AXIAL DOWN - NINTH 6 INCHES - R4
VOLUME : 9.67700E+06 CC
: ABOVE VOLUME IS FOR THE NINTH 6 INCHES OF CONCRETE IN THE
: AXIAL DOWN DIRECTION
:
: (INTERVALS 80-82 TOTGDNR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	CONCENTRATION (CURIES/CC) AT TIME SHUTDOWN	3 YEARS	5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	2.87104E-15	2.42350E-15	2.16460E-15	1.63198E-15	9.27663E-16	5.27310E-16	2.99737E-16	9.68483E-17
HE	2	6	8.09751E-01	2.26672E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	6.15847E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	5.88872E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	2.09411E-25	2.09410E-25	2.09410E-25	2.09410E-25	2.09409E-25	2.09409E-25	2.09408E-25	2.09407E-25
B	5	12	1.99754E-02	8.49458E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80078E+11	1.44966E-18	1.44914E-18	1.44879E-18	1.44791E-18	1.44616E-18	1.44442E-18	1.44267E-18	1.43919E-18
F	9	20	1.10023E+01	3.53722E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	4.40751E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	1.17462E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68153E+02	2.14397E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	1.49381E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	6.97758E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	2.55285E-16	2.19292E-39	9.19767E-55	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	1.51239E-16	2.69089E-20	8.51240E-23	4.79126E-29	1.51783E-41	4.80836E-54	1.52327E-66	0.00000E+00
S	16	37	3.04012E+02	2.07291E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	1.40744E-19	1.40743E-19	1.40742E-19	1.40741E-19	1.40738E-19	1.40736E-19	1.40731E-19	1.40725E-19
AR	18	37	3.02684E+06	8.21523E-15	3.15662E-24	1.66748E-30	3.38470E-46	1.39442E-77	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	3.62492E-17	3.59699E-17	3.57849E-17	3.53265E-17	3.44273E-17	3.35511E-17	3.26971E-17	3.10538E-17
AR	18	41	6.60140E+03	1.01829E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	1.88758E-22	1.88758E-22	1.88758E-22	1.88758E-22	1.88758E-22	1.88758E-22	1.88758E-22	1.88758E-22
K	19	42	4.47192E+04	4.65357E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	4.01466E-17	4.01466E-17	4.01459E-17	4.01441E-17	4.01407E-17	4.01372E-17	4.01337E-17	4.01267E-17
CA	20	45	1.42623E+07	1.25573E-14	1.26085E-16	5.86826E-18	2.74238E-21	5.98900E-28	1.30793E-34	2.85637E-41	1.36230E-54
CA	20	47	3.91608E+05	6.32147E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	1.65714E-15	1.94393E-19	4.65832E-22	1.30952E-28	1.03479E-41	8.17686E-55	6.46141E-68	0.00000E+00
SC	21	47	2.96217E+05	1.41454E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	4.88615E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	1.72976E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.83147E+02	9.06476E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	5.48316E+02	1.81719E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	1.58023E-21	1.58345E-22	3.41607E-23	7.38476E-25	3.45104E-28	1.61275E-31	7.53667E-35	1.64592E-41
V	23	52	2.02084E+02	4.79494E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	1.13370E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	1.61929E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	7.68700E-16	1.80757E-27	1.20674E-35	1.89449E-55	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10046E+02	9.52701E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	1.43763E-24	1.43763E-24	1.43763E-24	1.43763E-24	1.43763E-24	1.43762E-24	1.43762E-24	1.43762E-24
MN	25	54	2.61565E+07	1.08461E-15	8.82478E-17	1.65700E-17	2.53148E-19	5.90851E-23	1.37902E-26	3.21861E-30	1.75334E-37
MN	25	56	9.29152E+03	1.10395E-12	0.90000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	1.70795E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	2.70042E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	1.57565E-13	7.87996E-14	4.15348E-14	1.09487E-14	7.60792E-16	5.28650E-17	3.67342E-18	1.77369E-20
FE	26	59	3.89409E+06	1.69552E-15	8.14111E-23	1.07547E-27	6.82187E-40	2.74463E-64	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	3.36071E-30	3.36064E-30	3.36059E-30	3.36047E-30	3.36024E-30	3.36001E-30	3.35977E-30	3.35931E-30
FE	26	61	3.60081E+02	3.31453E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34836E+07	1.07523E-20	6.57547E-22	1.02065E-22	9.68840E-25	8.72969E-29	7.86581E-33	7.08753E-37	5.75418E-45
CO	27	58	6.13405E+06	3.03271E-18	6.85074E-23	5.47453E-26	9.88239E-34	3.22017E-49	1.04929E-64	0.00000E+00	0.00000E+00
CO	27	60	1.65983E+08	3.87797E-15	2.61159E-15	2.00649E-15	1.03818E-15	2.77932E-16	7.44055E-17	1.99192E-17	1.42760E-18
CO	27	61	5.94007E+03	2.94017E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34812E+02	1.53652E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

CO 27 64	2.99999E-01	9.06908E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI 28 59	2.52053E+12	1.08365E-20	1.08362E-20	1.08360E-20	1.08355E-20	1.08346E-20	1.08337E-20	1.08327E-20	1.08308E-20	
NI 28 63	2.90020E+09	1.60751E-18	1.65956E-18	1.63469E-18	1.57419E-18	1.45983E-18	1.35377E-18	1.25562E-18	1.07964E-18	
NI 28 65	9.21738E+03	1.03024E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU 29 64	4.62098E+04	2.20622E-15	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB 37 86	1.60972E+06	1.85735E-21	3.06777E-39	5.77308E-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 87	1.00799E+04	1.03265E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 89	4.50096E+06	5.85672E-20	2.72778E-26	1.63901E-30	4.58687E-41	3.59224E-62	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 90	8.86377E+08	1.89827E-24	1.76281E-24	1.67791E-24	1.48314E-24	1.16879E-24	9.05380E-25	7.07584E-25	4.31822E-25	
SR 38 91	3.48315E+04	1.37911E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 92	9.75604E+03	6.63238E-26	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR 38 93	4.50095E+02	3.39816E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 89	1.56998E+01	1.28707E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 90	2.30281E+05	2.13245E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 91	5.09667E+06	1.56723E-20	3.96893E-26	7.41249E-30	3.55118E-39	8.15036E-58	1.87060E-76	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 92	1.27440E+04	4.87514E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 94	1.12200E+03	1.07259E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y 39 96	9.80446E+00	1.00034E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 88	7.20602E+06	2.34513E-23	2.68155E-27	6.00632E-30	1.53837E-36	1.09911E-49	6.61943E-63	4.34211E-76	0.00000E+00	
ZR 40 89	2.82249E+05	2.64340E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR 40 93	4.74758E+13	5.96430E-23	5.96429E-23	5.96429E-23	5.96428E-23	5.96425E-23	5.96422E-23	5.96419E-23	5.96414E-23	
ZR 40 95	5.63534E+06	2.26909E-19	1.98884E-24	8.45677E-28	3.15030E-36	4.37361E-53	6.07194E-70	0.00000E+00	0.00000E+00	
ZR 40 97	6.04840E+04	4.09598E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 91	2.20888E+10	1.26579E-24	1.26204E-24	1.25954E-24	1.25332E-24	1.24097E-24	1.22874E-24	1.21663E-24	1.19277E-24	
NB 41 92	8.80746E+05	3.99049E-20	1.74920E-52	6.68503E-76	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 94	6.30134E+11	8.61689E-21	8.61599E-21	8.61539E-21	8.61390E-21	8.61091E-21	8.60792E-21	8.60493E-21	8.59896E-21	
NB 41 95	3.02684E+06	4.62610E-21	1.77697E-30	9.38978E-37	1.90597E-52	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 96	8.28132E+04	9.22489E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 97	4.33217E+03	8.48205E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 98	3.06025E+03	2.67110E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB 41 100	3.09994E+00	1.86332E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 93	2.84077E+11	8.82236E-23	8.82112E-23	8.81804E-23	8.81186E-23	8.80570E-23	7.99954E-23	7.98723E-23		
MO 42 99	2.41515E+05	7.33944E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO 42 101	8.76292E+02	3.83727E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 104	2.61565E+02	2.07227E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH 45 106	7.84813E+03	1.07134E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD 46 107	2.05156E+14	5.20741E-29	5.20741E-29	5.20741E-29	5.20740E-29	5.20740E-29	5.20739E-29	5.20739E-29	5.20738E-29	
PD 46 109	4.63706E+04	1.07823E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 106	7.34422E+05	4.73345E-22	7.41347E-61	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG 47 108	4.10389E+09	8.28736E-19	8.15689E-19	8.06941E-19	7.85720E-19	7.44937E-19	7.06271E-19	6.69612E-19	6.01903E-19	
AG 47 110	2.15826E+07	1.13638E-16	5.43310E-18	7.15697E-19	4.50751E-21	1.78792E-25	7.09178E-30	2.81796E-34	4.42574E-43	
CD 48 109	3.99508E+07	9.48356E-23	1.83469E-23	6.13815E-24	3.97268E-25	1.66432E-27	6.97223E-30	2.92079E-32	5.12584E-37	
CD 48 111	2.92221E+03	2.24481E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 115	1.92541E+05	7.08739E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 117	1.22396E+04	2.15075E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD 48 119	5.97541E+02	1.20656E-26	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 111	2.42444E+05	3.31055E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 112	1.25400E+03	1.79345E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 114	4.27869E+06	3.16653E-23	6.91533E-30	2.50785E-34	1.98622E-45	1.24581E-67	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 115	1.61497E+04	3.58242E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 116	1.40998E+01	1.65440E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 117	6.95931E+03	2.31485E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 118	2.63955E+02	8.63415E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 119	1.26027E+02	8.71995E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 120	4.40093E+01	1.92698E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN 49 122	1.00998E+01	2.63597E-25	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 113	9.94473E+06	8.72158E-20	1.18801E-22	1.45983E-24	2.44353E-29	6.84587E-39	1.91799E-48	5.37347E-58	4.21783E-77	
SN 50 121	9.72156E+04	4.16329E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN 50 123	1.07967E+07	6.03544E-19	1.58379E-21	2.40609E-23	9.59235E-28	1.52450E-36	2.42287E-45	3.85064E-54	9.72625E-72	
SN 50 125	8.12599E+05	7.46559E-18	6.32742E-53	2.63026E-76	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
I 53 130	4.44981E+04	8.00665E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE 54 133	4.56018E+05	3.68528E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 132	5.58990E+05	3.75224E-20	3.89607E-71	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS 55 134	6.47801E+07	3.65033E-16	1.32564E-16	6.74683E-17	1.24700E-17	4.25992E-19	1.45524E-20	4.97128E-22	5.86152E-25	
EU 63 152	4.17559E+08	3.49227E-15	2.98439E-15	2.68753E-15	2.06824E-15	1.22488E-15	7.25412E-16	4.29612E-16	1.50682E-16	
EU 63 154	2.69812E+08	3.46183E-16	2.71443E-16	2.30814E-16	1.53892E-16	6.84114E-17	3.04116E-17	1.35192E-17	2.67161E-18	
LU 71 174	1.22687E+07	1.62082E-26	7.70567E-29	2.17869E-30	2.92860E-34	5.29159E-42	9.56105E-50	1.72755E-57	5.63990E-73	
LU 71 177	1.38242E+07	7.27406E-24	6.31287E-26	2.66600E-27	9.77120E-31	1.31255E-37	1.76312E-44	2.36835E-51	4.27351E-65	
HF 72 173	8.49653E+04	1.74836E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 175	6.04868E+06	1.74695E-17	5.39156E-22	2.44990E-25	3.43576E-33	6.75698E-49	1.32887E-64	0.00000E+00	0.00000E+00	
HF 72 178	9.78761E+08	8.16400E-25	7.63432E-25	7.30044E-25	6.52821E-25	5.22018E-25	4.17423E-25	3.33786E-25	2.13427E-25	
HF 72 179	1.89384E+10	3.93244E-26	3.89890E-26	3.88991E-26	3.86751E-26	3.82309E-26	3.77919E-26	3.73579E-26	3.65048E-26	
HF 72 180	1.98773E+04	6.64140E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 181	3.66357E+06	1.26086E-16	2.89673E-20	1.36604E-29	1.48003E-42	1.73720E-68	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF 72 182	2.84077E+14	4.14488E-31	4.14488E-31	4.14488E-31	4.14488E-31	4.14488E-31	4.14487E-31	4.14487E-31	4.14486E-31	
TA 73 180	2.93458E+04	8.15091E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA 73 182	9.89362E+06	2.06419E-16	2.71751E-19	3.26476E-21	5.16214E-26	1.29091E-35	3.22822E-45	8.07292E-55	5.04860E-74	
W 74 181	1.20968E+07	6.07193E-20	2.67539E-22	7.19054E-24	8.51534E-28	1.19418E-35	1.67471E-43	2.34855E-51	4.61895E-67	
W 74 185	6.47801E+06	9.48456E-18	3.78102E-22	4.41262E-25	2.05286E-32	4.44315E-47	9.61676E-62	2.08142E-76	0.00000E+00	
W 74 187	8.59984E+04	1.86878E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 203	4.02525E+06	2.30305E-22	1.91494E-29	3.64799E-34	5.77851E-46	1.44978E-69	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG 80 205	3.11947E+02	1.79401E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 204	1.19282E+08	2.74427E-24	1.58308E-24	1.09703E-24	4.38543E-25	7.00807E-26	1.11991E-26	1.78965E-27	4.57026E-29	
TL 81 206	2.52054E+02	4.14337E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL 81 207	2.86188E+02	3.57028E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 203	1.86782E+05	9.09866E-20	9.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB 82 205	4.76390E+14	5.25029E-25	5.25029E-25	5.25029E-25	5.25029E-25	5.25029E-25	5.25028E-25	5.25028E-25	5.25028E-25	
PB 82 207	7.95989E-01	9.03503E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TOTAL (CURIES/CC)		1.58176E-12	7.95234E-14	4.87948E-14	1.59332E-14	3.33848E-15	1.48777E-15	8.42819E-16	3.26109E-16	
TOTAL (CURIES)		1.53067E-05	7.69548E-07	4.72187E-07	1.54185E-07	3.23065E-08	1.43972E-08	8.15596E-09	3.15575E-09	

FORM (A)292-12-3546

COMPONENT : CONCRETE - AXIAL DOWN - TENTH 6 INCHES - R4
VOLUME : 9.67700E+06 CC
: ABOVE VOLUME IS FOR THE TENTH 6 INCHES OF CONCRETE IN THE
: AXIAL DOWN DIRECTION
:
: (INTERVALS 83-85 TOTGDNR4)

NUCLIDE SYM	Z	M	HALF-LIFE (SECONDS)	SHUTDOWN	3 YEARS	CONCENTRATION (CURIES/CC) AT TIME 5 YEARS	10 YEARS	20 YEARS	30 YEARS	40 YEARS	60 YEARS
H	1	3	3.87233E+08	5.36998E-16	4.53269E-16	4.04865E-16	5.05245E-16	1.73510E-16	9.86277E-17	5.60627E-17	1.81144E-17
HE	2	6	8.09751E-01	5.08522E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
LI	3	8	8.40178E-01	1.15244E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	8	3.00064E-16	1.31239E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
BE	4	10	7.88563E+13	4.58378E-26	4.58378E-26	4.58378E-26	4.58377E-26	4.58376E-26	4.58375E-26	4.58373E-26	4.58371E-26
B	5	12	1.99764E-02	1.58906E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
C	6	14	1.80978E+11	2.71492E-19	2.71394E-19	2.71328E-19	2.71164E-19	2.70837E-19	2.70509E-19	2.70183E-19	2.69530E-19
F	9	20	1.10023E+01	8.35393E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NE	10	23	3.76710E+01	1.02237E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NA	11	24	5.41521E+04	2.20228E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MG	12	27	5.68155E+02	4.94285E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AL	13	28	1.38629E+02	2.90123E-14	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SI	14	31	9.43057E+03	1.56053E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
P	15	32	1.23556E+06	6.73424E-17	4.92576E-40	2.06603E-55	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
S	16	35	7.60030E+06	2.83782E-17	5.04914E-21	1.59725E-23	8.99023E-30	2.84803E-42	9.02231E-55	2.85823E-67	0.00000E+00
S	16	37	3.04012E+02	4.81825E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CL	17	36	9.77641E+12	2.65065E-20	2.65063E-20	2.65062E-20	2.65059E-20	2.65053E-20	2.65047E-20	2.65041E-20	2.65029E-20
AR	18	37	3.02684E+06	1.88271E-15	7.23184E-26	3.82141E-31	7.75683E-47	3.19565E-78	0.00000E+00	0.00000E+00	0.00000E+00
AR	18	39	8.48405E+09	7.30855E-18	7.24430E-18	7.20704E-18	7.11477E-18	6.93363E-18	6.75715E-18	6.58516E-18	6.25428E-18
AR	18	41	6.60148E+03	2.34848E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
K	19	40	4.10146E+16	3.53117E-23	3.53117E-23	3.53117E-23	3.53117E-23	3.53117E-23	3.53117E-23	3.53117E-23	3.53117E-23
K	19	42	4.47192E+04	7.59111E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CA	20	41	2.52053E+12	7.50768E-18	7.50749E-18	7.50736E-18	7.50703E-18	7.50638E-18	7.50573E-18	7.50508E-18	7.50377E-18
CA	20	45	1.42623E+07	2.35332E-15	2.36293E-17	1.09975E-18	5.13942E-22	1.12238E-28	2.45115E-35	5.35304E-42	2.55305E-55
CA	20	47	3.91608E+05	1.18217E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	46	7.25049E+06	3.10847E-16	3.04644E-20	8.73810E-23	2.45641E-29	1.94107E-42	1.53382E-55	1.21203E-68	0.00000E+00
SC	21	47	2.96217E+05	3.17847E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	48	1.58253E+05	1.14868E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	49	3.44849E+03	3.97343E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SC	21	50	1.03147E+02	2.15645E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TI	22	51	5.48315E+02	3.40462E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	49	2.85246E+07	3.76067E-22	3.76834E-23	8.12967E-24	1.75745E-25	8.21287E-29	3.83807E-32	1.79360E-35	3.91701E-42
V	23	52	2.02084E+02	8.98099E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	53	1.19922E+02	2.64182E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
V	23	54	5.50117E+01	3.85287E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	51	2.39843E+06	1.46059E-16	1.91446E-28	2.29291E-36	3.59968E-56	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CR	24	55	2.10045E+02	2.19461E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	53	1.16760E+14	3.42131E-25	3.42131E-25	3.42131E-25	3.42131E-25	3.42130E-25	3.42129E-25	3.42128E-25	3.42128E-25
MN	25	54	2.61565E+07	2.45113E-16	1.99632E-17	3.74468E-18	5.72092E-20	1.33527E-23	3.11646E-27	7.27377E-31	3.96238E-38
MN	25	56	9.29152E+03	2.06762E-13	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	57	1.01933E+02	4.17105E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MN	25	58	6.60140E+01	6.41326E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	55	8.20292E+07	2.94698E-14	1.32418E-14	7.76836E-15	2.04777E-15	1.42293E-16	9.88749E-18	6.87050E-19	3.31737E-21
FE	26	59	3.89409E+06	3.17618E-16	1.52505E-23	2.01465E-28	1.27792E-40	5.14144E-65	0.00000E+00	0.00000E+00	0.00000E+00
FE	26	60	3.15569E+12	7.99540E-31	7.99523E-31	7.99513E-31	7.99485E-31	7.99429E-31	7.99374E-31	7.99319E-31	7.99208E-31
FE	26	61	3.60001E+02	7.88783E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	57	2.34838E+07	2.55845E-21	1.56459E-22	2.62857E-23	2.30529E-25	2.07717E-29	1.87162E-33	1.68643E-37	1.36917E-45
CO	27	58	6.13405E+06	6.83230E-19	1.54338E-23	1.73334E-26	2.12637E-34	7.25462E-50	2.36392E-65	0.00000E+00	0.00000E+00
CO	27	60	1.65983E+08	7.26947E-16	4.89557E-16	3.76129E-16	1.96612E-16	5.20999E-17	1.39477E-17	3.73397E-18	2.67611E-19
CO	27	61	5.94007E+03	6.77432E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	62	8.34012E+02	3.61193E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CO	27	64	2.99999E-01	2.15822E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NI	28	59	2.52053E+12	2.02729E-21	2.02724E-21	2.02720E-21	2.02712E-21	2.02694E-21	2.02676E-21	2.02659E-21	2.02624E-21
NI	28	63	2.90020E+09	3.23739E-19	3.16496E-19	3.11758E-19	3.00220E-19	2.78410E-19	2.58183E-19	2.39427E-19	2.05982E-19
NI	28	65	9.21758E+03	2.37611E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CU	29	64	4.62098E+04	4.13370E-16	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RB	37	86	1.60972E+06	4.40439E-22	8.69750E-40	1.36899E-51	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	87	1.00799E+04	2.43677E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	89	4.50096E+06	1.36270E-20	6.34660E-27	5.81354E-31	1.06724E-41	8.35817E-63	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	90	8.86377E+08	4.46347E-25	4.19496E-25	3.94535E-25	3.48737E-25	2.72472E-25	2.12886E-25	1.66330E-25	1.01536E-25
SR	38	91	3.48315E+04	3.25650E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	92	9.75604E+03	1.57597E-25	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SR	38	93	4.50095E+02	8.06329E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	89	1.56998E+01	3.05913E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	90	2.30281E+05	3.98956E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	91	5.09667E+06	3.61799E-21	9.26210E-27	1.73331E-30	8.30395E-40	1.90585E-58	4.37414E-77	0.00000E+00	0.00000E+00
Y	39	92	1.27440E+04	1.14756E-21	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	94	1.12200E+03	2.54057E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
Y	39	96	9.80406E+00	2.38057E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	88	7.20602E+06	5.44909E-24	6.04490E-28	1.39562E-30	3.57452E-37	2.34476E-50	1.53808E-63	1.00892E-76	0.00000E+00
ZR	40	89	2.82249E+05	6.20529E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
ZR	40	93	4.74758E+13	1.12586E-23	1.12586E-23	1.12586E-23	1.12585E-23	1.12585E-23	1.12584E-23	1.12584E-23	1.12583E-23
ZR	40	95	5.63534E+06	5.39902E-20	4.73219E-25	2.01171E-28	7.49577E-37	1.04065E-53	1.44474E-70	0.00000E+00	0.00000E+00
ZR	40	97	6.04840E+04	7.98843E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	91	2.20888E+10	3.00408E-25	2.99517E-25	2.98924E-25	2.97448E-25	2.94517E-25	2.91614E-25	2.88741E-25	2.83079E-25
NB	41	92	8.80746E+05	9.41764E-21	4.12815E-53	1.10567E-74	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	94	6.30134E+11	1.62933E-21	1.62916E-21	1.62905E-21	1.62877E-21	1.62820E-21	1.62764E-21	1.62707E-21	1.62594E-21
NB	41	95	3.02684E+06	1.08004E-21	4.14863E-31	2.19220E-37	4.44980E-53	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	96	8.28132E+04	2.16951E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	97	4.33217E+03	1.98724E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	98	3.06025E+03	6.32074E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
NB	41	100	3.09994E+00	4.43306E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	93	2.84077E+11	1.60801E-23	1.60764E-23	1.60739E-23	1.60678E-23	1.60554E-23	1.60430E-23	1.60307E-23	1.60060E-23
MO	42	99	2.41515E+05	1.41982E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
MO	42	101	8.76292E+02	6.79001E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	104	2.61565E+02	4.89498E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
RH	45	106	7.84815E+03	2.50247E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PD	46	107	2.05154E+14	1.21994E-29	1.21994E-29	1.21994E-29	1.21994E-29	1.21994E-29	1.21994E-29	1.21994E-29	1.21993E-29
PD	46	109	4.83704E+04	2.52413E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	106	7.34422E+05	1.12648E-22	1.76428E-61	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
AG	47	108	4.10389E+09	1.55632E-19	1.53163E-19	1.51539E-19	1.47556E-19	1.39895E-19	1.32634E-19	1.25749E-19	1.13034E-19
AG	47	110	2.15826E+07	2.15130E-17	1.02855E-18	1.35489E-19	8.53322E-22	3.38473E-26	1.34255E-30	5.32525E-35	8.37842E-44
CD	48	109	3.99508E+07	2.21863E-23	4.29265E-24	1.43599E-24	9.29436E-26	3.89359E-28	1.63112E-30	6.83306E-33	1.19917E-37
CD	48	111	2.92221E+03	5.27629E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	115	1.92541E+05	1.68048E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	117	1.22399E+04	5.11833E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CD	48	119	5.97541E+02	2.87141E-27	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	111	2.42444E+05	7.85107E-25	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	112	1.25400E+03	4.19588E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	114	4.27869E+06	7.43450E-24	1.62360E-30	5.88803E-35	4.66332E-46	2.92495E-68	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	115	1.61497E+04	8.38382E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	116	1.40998E+01	3.90186E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	117	6.95931E+03	5.42596E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	118	2.63955E+02	2.04524E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	119	1.26027E+02	2.04949E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	120	4.40093E+01	4.57983E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
IN	49	122	1.08998E+01	6.27315E-26	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	113	9.94473E+06	1.73683E-20	2.36581E-23	2.90712E-25	4.86608E-30	1.36329E-39	3.81950E-49	1.07008E-58	8.39942E-78
SN	50	121	9.72156E+04	7.88066E-19	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
SN	50	123	1.07967E+07	1.15750E-19	2.65388E-22	4.61448E-24	1.83965E-28	2.92574E-37	4.64666E-46	7.38488E-55	1.86533E-72
SN	50	125	8.12599E+05	1.40899E-18	1.19418E-53	4.96415E-77	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

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I	53	130	4.44981E+04	1.87132E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE	54	133	4.56018E+05	8.57638E-22	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
XE	54	132	4.58990E+05	8.92969E-21	9.27196E-72	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
CS	55	134	6.47801E+07	6.90709E-17	2.60635E-17	1.27570E-17	2.35785E-18	8.05470E-20	2.75158E-21	9.39976E-23
EU	63	152	4.17559E+08	6.53008E-16	5.58041E-16	5.02533E-16	3.86732E-16	2.29036E-16	1.35642E-16	8.03318E-17
EU	63	154	2.69812E+08	6.49368E-17	5.09172E-17	4.32959E-17	2.88670E-17	1.28326E-17	5.70459E-18	2.53592E-18
LU	71	174	1.22687E+07	3.71542E-27	1.76638E-29	4.99623E-31	6.71327E-35	1.21300E-42	2.19169E-50	3.96004E-58
LU	71	177	1.58242E+07	1.70190E-24	1.47701E-26	6.23759E-28	2.28615E-31	5.07094E-38	4.12513E-45	5.54119E-52
HF	72	173	8.49653E+04	4.16079E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF	72	175	6.04840E+06	3.27859E-18	6.36512E-23	4.59785E-26	6.44807E-34	1.26812E-49	2.49396E-65	0.00000E+00
HF	72	178	9.78261E+08	1.91869E-25	1.79402E-25	1.71556E-25	1.53409E-25	1.22671E-25	9.80921E-26	7.84378E-26
HF	72	179	1.89384E+10	9.17130E-27	9.13958E-27	9.11849E-27	9.06598E-27	8.96187E-27	8.85895E-27	8.75722E-27
HF	72	180	1.98723E+04	1.56224E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HF	72	181	3.66357E+06	2.58300E-17	3.96279E-25	2.56179E-30	2.79724E-43	3.28329E-69	0.00000E+00	0.00000E+00
HF	72	182	2.84077E+14	9.77008E-32	9.77008E-32	9.77007E-32	9.77007E-32	9.77006E-32	9.77006E-32	9.77005E-32
TA	73	180	2.93458E+04	1.93845E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TA	73	182	9.89362E+06	3.92652E-17	5.16927E-20	6.20930E-22	9.81948E-27	2.45559E-36	6.14076E-46	1.53564E-55
W	74	181	1.20966E+07	1.44498E-20	6.36683E-23	1.71119E-24	2.02646E-27	2.84188E-36	3.98542E-44	5.58902E-52
W	74	185	6.47801E+06	1.80157E-18	7.18211E-23	8.38145E-26	5.89944E-33	8.43982E-48	1.82672E-62	3.95369E-77
W	74	187	8.59986E+04	3.53450E-17	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
HG	80	203	4.82525E+06	5.43443E-23	4.51862E-30	8.60801E-35	1.36353E-46	3.42098E-70	0.00000E+00	0.00000E+00
HG	80	205	3.11947E+02	4.25555E-23	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL	81	204	1.19282E+08	6.45531E-25	3.72385E-25	2.58053E-25	1.03158E-25	1.64850E-26	2.63435E-27	4.20978E-28
TL	81	206	2.52054E+02	9.79014E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
TL	81	207	2.86188E+02	7.94006E-24	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB	82	203	1.86782E+05	2.16530E-20	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
PB	82	205	4.76390E+14	1.24916E-25	1.24916E-25	1.24916E-25	1.24916E-25	1.24916E-25	1.24916E-25	1.24916E-25
PB	82	207	7.95989E-01	2.14723E-18	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
		TOTAL (CURIES/CC)		2.97834E-13	1.48789E-14	9.12838E-15	2.98101E-15	6.25010E-16	2.78767E-16	1.58107E-16	6.14386E-17
		TOTAL (CURIES)		2.88214E-06	1.43983E-07	8.83353E-08	2.88473E-08	6.04822E-09	2.69763E-09	1.53000E-09	5.94541E-10

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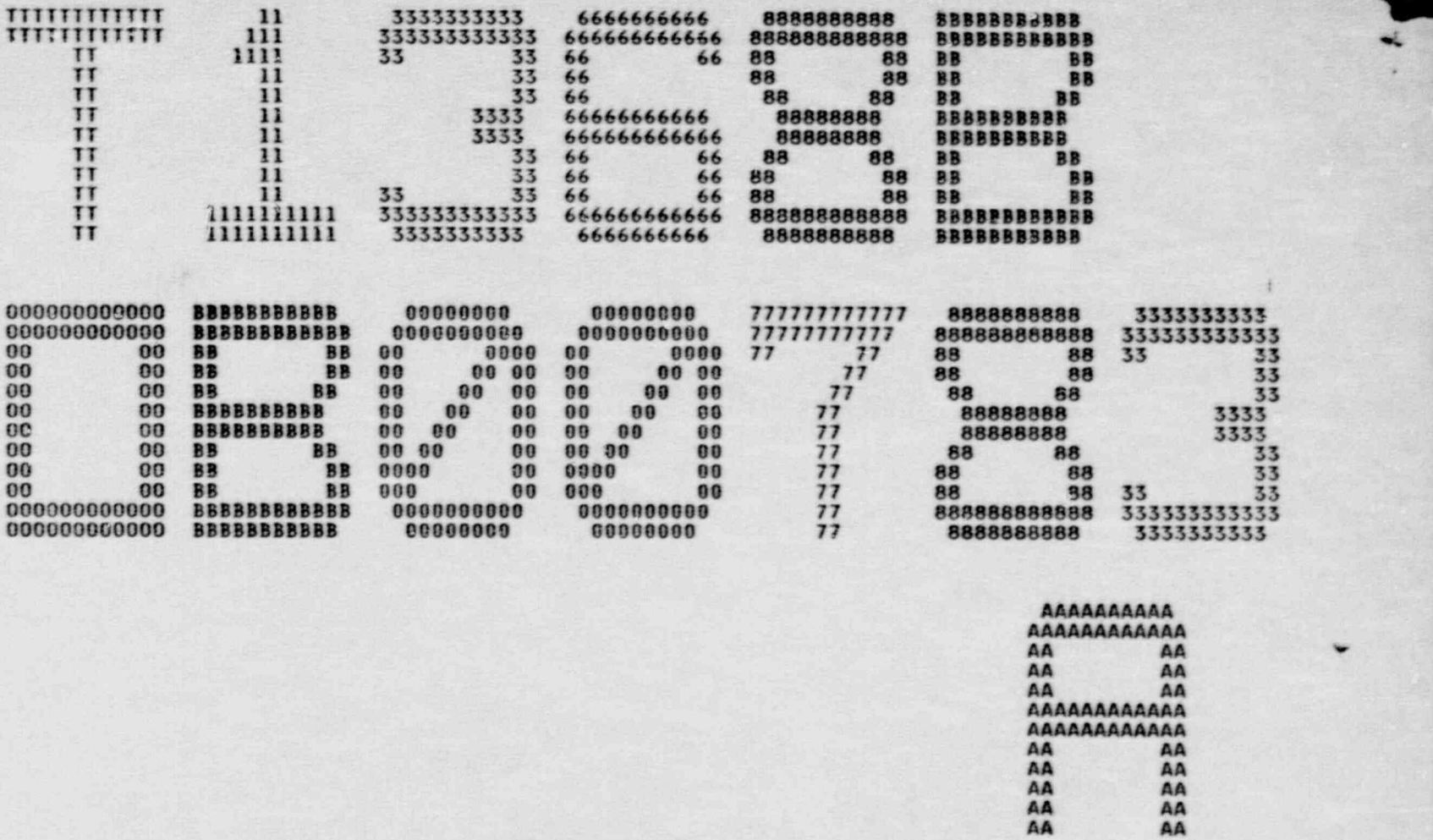

*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*
*END	JOB00783	T1368B	1	001	001	LOCAL	DIA HILL 1368 WALKER ROOM	8.56.20 AM	11 JUL 89	PRT15	DDDD END	A*

ATTACHMENT 7

FORT ST. VRAIN PLATEOUT ANALYSIS
FOR DECOMMISSIONING STUDY

(GA Document No. 909658, Issue A, dated 2/27/89).