Summary : RESRAD Default Parameters
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Part I: Mixture Sums and Single Radionuclide Guidelines

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Dose Conversion Factor (and Related) Parameter Summary
Dose Library: FCS FGR Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
A-1	DCF's for external ground radiation, (mrem/yr)/(pCi/g)			
A-1	Ba-137m (Source: FGR 12)	3.606E+00	3.606E+00	DCF1(1)
A-1	C-14 (Source: FGR 12)	1.345E-05	1.345E-05	DCF1(2)
A-1	Co-60 (Source: FGR 12)	1.622E+01	1.622E+01	DCF1(3)
A-1	Cs-137 (Source: FGR 12)	7.510E-04	7.510E-04	DCF1(4)
A-1	Eu-152 (Source: FGR 12)	7.006E+00	7.006E+00	DCF1(5)
A-1	Gd-152 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1(6)
A-1	Ni-63 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1(7)
A-1	Sr-90 (Source: FGR 12)	7.043E-04	7.043E-04	DCF1(8)
A-1	Y-90 (Source: FGR 12)	2.391E-02	2.391E-02	DCF1(9)
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	C-14(p) (Class: ORGANIC)	2.090E-06	2.090E-06	DCF2(1)
B-1	C-14(g) (Class: CO2)	2.350E-08	2.350E-08	C14GInhDCF
B-1	Co-60	2.190E-04	2.190E-04	DCF2(2)
B-1	Cs-137+D	3.190E-05	3.190E-05	DCF2(3)
B-1	Eu-152	2.210E-04	2.210E-04	DCF2(4)
B-1	Gd-152	2.430E-01	2.430E-01	DCF2(6)
B-1	Ni-63	6.290E-06	6.290E-06	DCF2(7)
B-1	Sr-90+D	1.308E-03	1.300E-03	DCF2(8)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	C-14	2.090E-06	2.090E-06	DCF3(1)
D-1	Co-60	2.690E-05	2.690E-05	DCF3(2)
D-1	Cs-137+D	5.000E-05	5.000E-05	DCF3(3)
D-1	Eu-152	6.480E-06	6.480E-06	DCF3(4)
D-1	Gd-152	1.610E-04	1.610E-04	DCF3(6)
D-1	Ni-63	5.770E-07	5.770E-07	DCF3(7)
D-1	Sr-90+D	1.528E-04	1.420E-04	DCF3(8)
D-34	Food transfer factors:			
D-34	C-14 , plant/soil concentration ratio, dimensionless	1.280E+00	5.500E+00	RTF(1,1)
D-34	C-14 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	6.110E-02	3.100E-02	RTF(1,2)
D-34	C-14 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.250E-02	1.200E-02	RTF(1,3)
D-34				
D-34	Co-60 , plant/soil concentration ratio, dimensionless	1.460E-01	8.000E-02	RTF(2,1)
D-34	Co-60 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.980E-02	2.000E-02	RTF(2,2)
D-34	Co-60 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.220E-03	2.000E-03	RTF(2,3)
D-34				
D-34	Cs-137+D , plant/soil concentration ratio, dimensionless	7.830E-02	4.000E-02	RTF(3,1)
D-34	Cs-137+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	6.560E-02	3.000E-02	RTF(3,2)
D-34	Cs-137+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.370E-02	8.000E-03	RTF(3,3)
D-34				
D-34	Eu-152 , plant/soil concentration ratio, dimensionless	4.210E-03	2.500E-03	RTF(4,1)
D-34	Eu-152 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	4.020E-03	2.000E-03	RTF(4,2)
D-34	Eu-152 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.120E-04	5.000E-05	RTF(4,3)
D-34				
D-34	Gd-152 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(6,1)
D-34	Gd-152 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-03	2.000E-03	RTF(6,2)
D-34	Gd-152 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-05	2.000E-05	RTF(6,3)

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Dose Conversion Factor (and Related) Parameter Summary (continued)
Dose Library: FCS FGR Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-34	Ni-63 , plant/soil concentration ratio, dimensionless	9.130E-02	5.000E-02	RTF(7,1)
D-34	Ni-63 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	9.260E-03	5.000E-03	RTF(7,2)
D-34	Ni-63 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.190E-02	2.000E-02	RTF(7,3)
D-34				
D-34	Sr-90+D , plant/soil concentration ratio, dimensionless	5.900E-01	3.000E-01	RTF(8,1)
D-34	Sr-90+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.310E-02	8.000E-03	RTF(8,2)
D-34	Sr-90+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.760E-03	2.000E-03	RTF(8,3)
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	C-14 , fish	5.000E+04	5.000E+04	BIOFAC(1,1)
D-5	C-14 , crustacea and mollusks	9.100E+03	9.100E+03	BIOFAC(1,2)
D-5				
D-5	Co-60 , fish	3.000E+02	3.000E+02	BIOFAC(2,1)
D-5	Co-60 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC(2,2)
D-5				
D-5	Cs-137+D , fish	2.000E+03	2.000E+03	BIOFAC(3,1)
D-5	Cs-137+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC(3,2)
D-5				
D-5	Eu-152 , fish	5.000E+01	5.000E+01	BIOFAC(4,1)
D-5	Eu-152 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(4,2)
D-5				
D-5	Gd-152 , fish	2.500E+01	2.500E+01	BIOFAC(6,1)
D-5	Gd-152 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(6,2)
D-5				
D-5	Ni-63 , fish	1.000E+02	1.000E+02	BIOFAC(7,1)
D-5	Ni-63 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC(7,2)
D-5				
D-5	Sr-90+D , fish	6.000E+01	6.000E+01	BIOFAC(8,1)
D-5	Sr-90+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC(8,2)

#For DCF1(xxx) only, factors are for infinite depth & area. See ETFG table in Ground Pathway of Detailed Report.
*Base Case means Default.Lib w/o Associate Nuclide contributions.

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Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+01	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.000E+00	2.000E+00	---	THICK0
R011	Fraction of contamination that is submerged	0.000E+00	0.000E+00	---	SUBMFRACT
R011	Length parallel to aquifer flow (m)	3.160E+00	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	0.000E+00	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T(2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T(3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T(4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T(5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T(6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T(7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T(8)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(9)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(10)
R012	Initial principal radionuclide (pCi/g): C-14	1.000E+00	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	1.000E+00	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-137	1.000E+00	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Eu-152	1.000E+00	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	1.000E+00	0.000E+00	---	S1(7)
R012	Initial principal radionuclide (pCi/g): Sr-90	1.000E+00	0.000E+00	---	S1(8)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Eu-152	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(7)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(8)
R013	Cover depth (m)	0.000E+00	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	not used	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	not used	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	7.590E-04	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.300E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.800E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	3.440E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	2.870E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.270E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	8.700E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	7.600E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	1.900E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	6.300E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+06	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	---	EPS
R014	Density of saturated zone (g/cm**3)	1.490E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	4.500E-01	4.000E-01	---	TPSZ

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ
R014	Saturated zone field capacity	2.400E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	4.350E+03	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	8.400E-04	2.000E-02	---	HGWT
R014	Saturated zone b parameter	not used	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	0.000E+00	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.140E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	4.550E+03	2.500E+02	---	UW
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	1.000E-01	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	4.300E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	1.600E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.800E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	3.600E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	3.440E+01	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	9.670E+01	0.000E+00	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	9.670E+01	0.000E+00	---	DCNUCU(1,1)
R016	Saturated zone (cm**3/g)	1.100E+01	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.215E-04	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	5.050E+03	1.000E+03	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	5.050E+03	1.000E+03	---	DCNUCU(2,1)
R016	Saturated zone (cm**3/g)	2.600E+02	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.086E-06	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	3.500E+03	4.600E+03	---	DCNUCC(3)
R016	Unsaturated zone 1 (cm**3/g)	3.500E+03	4.600E+03	---	DCNUCU(3,1)
R016	Saturated zone (cm**3/g)	5.280E+02	4.600E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.167E-05	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for Eu-152				
R016	Contaminated zone (cm**3/g)	7.270E+03	-1.000E+00	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	7.270E+03	-1.000E+00	---	DCNUCU(4,1)
R016	Saturated zone (cm**3/g)	8.290E+02	-1.000E+00	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.617E-06	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	5.320E+02	1.000E+03	---	DCNUCC(7)
R016	Unsaturated zone 1 (cm**3/g)	5.320E+02	1.000E+03	---	DCNUCU(7,1)
R016	Saturated zone (cm**3/g)	1.300E+02	1.000E+03	---	DCNUCS(7)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.673E-05	ALEACH(7)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(7)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	1.680E+02	3.000E+01	---	DCNUCC(8)
R016	Unsaturated zone 1 (cm**3/g)	1.680E+02	3.000E+01	---	DCNUCU(8,1)
R016	Saturated zone (cm**3/g)	2.200E+01	3.000E+01	---	DCNUCS(8)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.428E-04	ALEACH(8)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(8)
R016	Distribution coefficients for daughter Gd-152				
R016	Contaminated zone (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCU(6,1)
R016	Saturated zone (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.950E-05	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.600E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	2.870E-05	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	7.500E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	5.520E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	6.600E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.200E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	not used	5.000E+01	---	RAD_SHAPE(1)
R017	Outer annular radius (m), ring 2:	not used	7.071E+01	---	RAD_SHAPE(2)
R017	Outer annular radius (m), ring 3:	not used	0.000E+00	---	RAD_SHAPE(3)
R017	Outer annular radius (m), ring 4:	not used	0.000E+00	---	RAD_SHAPE(4)
R017	Outer annular radius (m), ring 5:	not used	0.000E+00	---	RAD_SHAPE(5)
R017	Outer annular radius (m), ring 6:	not used	0.000E+00	---	RAD_SHAPE(6)
R017	Outer annular radius (m), ring 7:	not used	0.000E+00	---	RAD_SHAPE(7)
R017	Outer annular radius (m), ring 8:	not used	0.000E+00	---	RAD_SHAPE(8)
R017	Outer annular radius (m), ring 9:	not used	0.000E+00	---	RAD_SHAPE(9)
R017	Outer annular radius (m), ring 10:	not used	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	not used	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	not used	0.000E+00	---	RAD_SHAPE(12)

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Fractions of annular areas within AREA:				
R017	Ring 1	not used	1.000E+00	---	FRACA(1)
R017	Ring 2	not used	2.732E-01	---	FRACA(2)
R017	Ring 3	not used	0.000E+00	---	FRACA(3)
R017	Ring 4	not used	0.000E+00	---	FRACA(4)
R017	Ring 5	not used	0.000E+00	---	FRACA(5)
R017	Ring 6	not used	0.000E+00	---	FRACA(6)
R017	Ring 7	not used	0.000E+00	---	FRACA(7)
R017	Ring 8	not used	0.000E+00	---	FRACA(8)
R017	Ring 9	not used	0.000E+00	---	FRACA(9)
R017	Ring 10	not used	0.000E+00	---	FRACA(10)
R017	Ring 11	not used	0.000E+00	---	FRACA(11)
R017	Ring 12	not used	0.000E+00	---	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	2.240E+02	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	4.280E+01	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	2.330E+02	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	6.510E+01	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	not used	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	not used	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	1.830E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	4.780E+02	5.100E+02	---	DWI
R018	Contamination fraction of drinking water	1.000E+00	1.000E+00	---	FDW
R018	Contamination fraction of household water	not used	1.000E+00	---	FHHW
R018	Contamination fraction of livestock water	1.000E+00	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	1.000E+00	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	-1	-1	0.500E-02	FPLANT
R018	Contamination fraction of meat	-1	-1	0.500E-03	FMEAT
R018	Contamination fraction of milk	-1	-1	0.500E-03	FMILK
R019	Livestock fodder intake for meat (kg/day)	2.710E+01	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	6.321E+01	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	5.060E+01	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	6.000E+01	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	7.000E-01	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	4.000E-04	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	2.300E-01	1.500E-01	---	DM
R019	Depth of roots (m)	1.230E+00	9.000E-01	---	DROOT
R019	Drinking water fraction from ground water	1.000E+00	1.000E+00	---	FGWDW
R019	Household water fraction from ground water	not used	1.000E+00	---	FGWHH
R019	Livestock water fraction from ground water	1.000E+00	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	1.000E+00	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	1.750E+00	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	2.890E+00	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	1.890E+00	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	2.460E-01	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	1.230E-01	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	8.200E-02	8.000E-02	---	TE(3)

Summary : RESRAD Default Parameters
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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R19B	Translocation Factor for Non-Leafy	1.000E-01	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	1.000E+00	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	1.000E+00	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	3.500E-01	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	3.500E-01	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	3.500E-01	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	3.500E-01	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	5.800E-01	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	3.500E-01	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	3.300E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	2.000E-05	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	3.000E-02	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	2.000E-02	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	9.800E-01	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	3.000E-01	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	7.000E-07	7.000E-07	---	EVSN
C14	C-12 evasion flux rate from soil (1/sec)	1.000E-10	1.000E-10	---	REVSN
C14	Fraction of grain in beef cattle feed	9.000E-02	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	3.000E-02	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	not used	3.000E-07	---	DIFFL
R021	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
R021	Height of the building (room) (m)	not used	2.500E+00	---	HRM
R021	Building interior area factor	not used	0.000E+00	---	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA(1)
R021	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA(2)
TITL	Number of graphical time points	128	---	---	NPTS

Summary : RESRAD Default Parameters
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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
TITL	Maximum number of integration points for dose	17	---	---	LYMAX
TITL	Maximum number of integration points for risk	1	---	---	KYMAX

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	active
4 -- meat ingestion	active
5 -- milk ingestion	active
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	suppressed

Summary : RESRAD Default Parameters

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Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
Area:	10.00 square meters	C-14	1.000E+00
Thickness:	1.00 meters	Co-60	1.000E+00
Cover Depth:	0.00 meters	Cs-137	1.000E+00
		Eu-152	1.000E+00
		Ni-63	1.000E+00
		Sr-90	1.000E+00

Total Dose TDOSE(t), mrem/yr

Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)

t (years):	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	5.783E+00	5.269E+00	4.400E+00	2.506E+00	8.184E-01	9.281E-02	8.080E-04	1.226E-08
M(t):	2.313E-01	2.107E-01	1.760E-01	1.003E-01	3.274E-02	3.712E-03	3.232E-05	4.905E-10

Maximum TDOSE(t): 5.783E+00 mrem/yr at t = 0.000E+00 years

Summary : RESRAD Default Parameters

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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio-	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	5.097E-07	0.0000	1.810E-06	0.0000	0.000E+00	0.0000	2.231E-04	0.0000	6.810E-06	0.0000	5.510E-06	0.0000	4.489E-08	0.0000
Co-60	3.379E+00	0.5842	1.990E-06	0.0000	0.000E+00	0.0000	3.990E-03	0.0007	1.921E-04	0.0000	7.755E-05	0.0000	3.598E-06	0.0000
Cs-137	7.580E-01	0.1311	3.058E-07	0.0000	0.000E+00	0.0000	4.196E-03	0.0007	2.559E-04	0.0000	3.726E-04	0.0001	7.055E-06	0.0000
Eu-152	1.533E+00	0.2650	2.088E-06	0.0000	0.000E+00	0.0000	2.883E-05	0.0000	6.551E-07	0.0000	7.552E-08	0.0000	9.013E-07	0.0000
Ni-63	0.000E+00	0.0000	6.077E-08	0.0000	0.000E+00	0.0000	5.691E-05	0.0000	4.698E-07	0.0000	1.152E-05	0.0000	8.206E-08	0.0000
Sr-90	5.453E-03	0.0009	1.254E-05	0.0000	0.000E+00	0.0000	9.657E-02	0.0167	8.817E-04	0.0002	1.506E-03	0.0003	2.155E-05	0.0000
Total	5.675E+00	0.9813	1.879E-05	0.0000	0.000E+00	0.0000	1.051E-01	0.0182	1.338E-03	0.0002	1.973E-03	0.0003	3.323E-05	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Water Dependent Pathways

Radio-	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.377E-04	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.383E+00	0.5850
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.629E-01	0.1319
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.533E+00	0.2650
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.904E-05	0.0000
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.044E-01	0.0181
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.783E+00	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters
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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio-	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	6.642E-10	0.0000	2.358E-09	0.0000	0.000E+00	0.0000	3.375E-07	0.0000	1.525E-08	0.0000	1.092E-08	0.0000	5.849E-11	0.0000
Co-60	2.963E+00	0.5623	1.745E-06	0.0000	0.000E+00	0.0000	3.496E-03	0.0007	1.684E-04	0.0000	6.794E-05	0.0000	3.155E-06	0.0000
Cs-137	7.407E-01	0.1406	2.988E-07	0.0000	0.000E+00	0.0000	4.097E-03	0.0008	2.499E-04	0.0000	3.638E-04	0.0001	6.894E-06	0.0000
Eu-152	1.455E+00	0.2761	1.982E-06	0.0000	0.000E+00	0.0000	2.735E-05	0.0000	6.218E-07	0.0000	7.168E-08	0.0000	8.556E-07	0.0000
Ni-63	0.000E+00	0.0000	6.033E-08	0.0000	0.000E+00	0.0000	5.645E-05	0.0000	4.661E-07	0.0000	1.143E-05	0.0000	8.146E-08	0.0000
Sr-90	5.323E-03	0.0010	1.224E-05	0.0000	0.000E+00	0.0000	9.421E-02	0.0179	8.602E-04	0.0002	1.469E-03	0.0003	2.104E-05	0.0000
Total	5.163E+00	0.9800	1.633E-05	0.0000	0.000E+00	0.0000	1.019E-01	0.0193	1.280E-03	0.0002	1.912E-03	0.0004	3.202E-05	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Dependent Pathways

Radio-	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.667E-07	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.966E+00	0.5630
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.454E-01	0.1415
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.455E+00	0.2762
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.848E-05	0.0000
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.019E-01	0.0193
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.269E+00	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters
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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio-	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	1.094E-15	0.0000	3.884E-15	0.0000	0.000E+00	0.0000	5.559E-13	0.0000	2.520E-14	0.0000	1.803E-14	0.0000	9.634E-17	0.0000
Co-60	2.277E+00	0.5176	1.341E-06	0.0000	0.000E+00	0.0000	2.683E-03	0.0006	1.293E-04	0.0000	5.216E-05	0.0000	2.425E-06	0.0000
Cs-137	7.073E-01	0.1607	2.853E-07	0.0000	0.000E+00	0.0000	3.906E-03	0.0009	2.384E-04	0.0001	3.469E-04	0.0001	6.582E-06	0.0000
Eu-152	1.311E+00	0.2980	1.787E-06	0.0000	0.000E+00	0.0000	2.461E-05	0.0000	5.603E-07	0.0000	6.457E-08	0.0000	7.711E-07	0.0000
Ni-63	0.000E+00	0.0000	5.946E-08	0.0000	0.000E+00	0.0000	5.555E-05	0.0000	4.589E-07	0.0000	1.125E-05	0.0000	8.028E-08	0.0000
Sr-90	5.073E-03	0.0012	1.166E-05	0.0000	0.000E+00	0.0000	8.965E-02	0.0204	8.186E-04	0.0002	1.398E-03	0.0003	2.005E-05	0.0000
Total	4.301E+00	0.9774	1.514E-05	0.0000	0.000E+00	0.0000	9.632E-02	0.0219	1.187E-03	0.0003	1.808E-03	0.0004	2.991E-05	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 3.000E+00 years

Water Dependent Pathways

Radio-	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.042E-13	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.280E+00	0.5182
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.118E-01	0.1618
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.311E+00	0.2980
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.739E-05	0.0000
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.697E-02	0.0220
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.400E+00	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters
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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio-	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	9.071E-01	0.3619	5.342E-07	0.0000	0.000E+00	0.0000	1.063E-03	0.0004	5.126E-05	0.0000	2.067E-05	0.0000	9.659E-07	0.0000
Cs-137	6.016E-01	0.2400	2.427E-07	0.0000	0.000E+00	0.0000	3.305E-03	0.0013	2.020E-04	0.0001	2.938E-04	0.0001	5.599E-06	0.0000
Eu-152	9.111E-01	0.3635	1.241E-06	0.0000	0.000E+00	0.0000	1.701E-05	0.0000	3.891E-07	0.0000	4.481E-08	0.0000	5.358E-07	0.0000
Ni-63	0.000E+00	0.0000	5.650E-08	0.0000	0.000E+00	0.0000	5.250E-05	0.0000	4.343E-07	0.0000	1.064E-05	0.0000	7.629E-08	0.0000
Sr-90	4.288E-03	0.0017	9.857E-06	0.0000	0.000E+00	0.0000	7.536E-02	0.0301	6.883E-04	0.0003	1.175E-03	0.0005	1.694E-05	0.0000
Total	2.424E+00	0.9672	1.193E-05	0.0000	0.000E+00	0.0000	7.979E-02	0.0318	9.424E-04	0.0004	1.500E-03	0.0006	2.412E-05	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Dependent Pathways

Radio-	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.082E-01	0.3624
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.054E-01	0.2415
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.111E-01	0.3635
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.370E-05	0.0000
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.153E-02	0.0325
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.506E+00	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters
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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio-	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	6.537E-02	0.0799	3.850E-08	0.0000	0.000E+00	0.0000	7.543E-05	0.0001	3.647E-06	0.0000	1.469E-06	0.0000	6.960E-08	0.0000
Cs-137	3.789E-01	0.4629	1.528E-07	0.0000	0.000E+00	0.0000	2.049E-03	0.0025	1.258E-04	0.0002	1.826E-04	0.0002	3.526E-06	0.0000
Eu-152	3.220E-01	0.3934	4.388E-07	0.0000	0.000E+00	0.0000	5.919E-06	0.0000	1.373E-07	0.0000	1.578E-08	0.0000	1.894E-07	0.0000
Ni-63	0.000E+00	0.0000	4.883E-08	0.0000	0.000E+00	0.0000	4.468E-05	0.0001	3.711E-07	0.0000	9.070E-06	0.0000	6.593E-08	0.0000
Sr-90	2.651E-03	0.0032	6.094E-06	0.0000	0.000E+00	0.0000	4.587E-02	0.0561	4.193E-04	0.0005	7.155E-04	0.0009	1.048E-05	0.0000
Total	7.689E-01	0.9395	6.773E-06	0.0000	0.000E+00	0.0000	4.805E-02	0.0587	5.493E-04	0.0007	9.087E-04	0.0011	1.433E-05	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 3.000E+01 years

Water Dependent Pathways

Radio-	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.545E-02	0.0800
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.813E-01	0.4658
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.220E-01	0.3934
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.423E-05	0.0001
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.968E-02	0.0607
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.184E-01	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters
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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Water Independent Pathways (Inhalation excludes radon)

Radio-	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	6.567E-06	0.0001	3.868E-12	0.0000	0.000E+00	0.0000	7.166E-09	0.0000	3.501E-10	0.0000	1.402E-10	0.0000	6.993E-12	0.0000
Cs-137	7.512E-02	0.8094	3.030E-08	0.0000	0.000E+00	0.0000	3.842E-04	0.0041	2.399E-05	0.0003	3.453E-05	0.0004	6.991E-07	0.0000
Eu-152	8.451E-03	0.0911	1.151E-08	0.0000	0.000E+00	0.0000	1.469E-07	0.0000	3.580E-09	0.0000	4.089E-10	0.0000	4.970E-09	0.0000
Ni-63	0.000E+00	0.0000	2.930E-08	0.0000	0.000E+00	0.0000	2.535E-05	0.0003	2.137E-07	0.0000	5.185E-06	0.0001	3.956E-08	0.0000
Sr-90	4.924E-04	0.0053	1.132E-06	0.0000	0.000E+00	0.0000	8.059E-03	0.0868	7.389E-05	0.0008	1.259E-04	0.0014	1.946E-06	0.0000
Total	8.407E-02	0.9059	1.203E-06	0.0000	0.000E+00	0.0000	8.469E-03	0.0913	9.810E-05	0.0011	1.656E-04	0.0018	2.690E-06	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 1.000E+02 years

Water Dependent Pathways

Radio-	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	3.167E-24	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.214E-27	0.0000	1.187E-27	0.0000	5.378E-28	0.0000	3.169E-24	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.575E-06	0.0001
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.556E-02	0.8142
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.451E-03	0.0911
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.082E-05	0.0003
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.754E-03	0.0943
Total	3.167E-24	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.214E-27	0.0000	1.187E-27	0.0000	5.378E-28	0.0000	9.281E-02	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters
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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Water Independent Pathways (Inhalation excludes radon)

Radio-	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	2.480E-17	0.0000	1.461E-23	0.0000	0.000E+00	0.0000	2.262E-20	0.0000	1.147E-21	0.0000	4.507E-22	0.0000	2.641E-23	0.0000
Cs-137	7.377E-04	0.9130	2.976E-10	0.0000	0.000E+00	0.0000	3.153E-06	0.0039	2.087E-07	0.0003	2.922E-07	0.0004	6.866E-09	0.0000
Eu-152	2.569E-07	0.0003	3.502E-13	0.0000	0.000E+00	0.0000	3.732E-12	0.0000	1.069E-13	0.0000	1.198E-14	0.0000	1.511E-13	0.0000
Ni-63	0.000E+00	0.0000	6.808E-09	0.0000	0.000E+00	0.0000	4.923E-06	0.0061	4.374E-08	0.0001	1.035E-06	0.0013	9.192E-09	0.0000
Sr-90	4.015E-06	0.0050	9.232E-09	0.0000	0.000E+00	0.0000	5.492E-05	0.0680	5.090E-07	0.0006	8.618E-07	0.0011	1.587E-08	0.0000
Total	7.420E-04	0.9183	1.634E-08	0.0000	0.000E+00	0.0000	6.299E-05	0.0780	7.614E-07	0.0009	2.189E-06	0.0027	3.193E-08	0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

Water Dependent Pathways

Radio-	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.483E-17	0.0000
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.413E-04	0.9175
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.569E-07	0.0003
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.017E-06	0.0074
Sr-90	3.949E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.856E-11	0.0000	2.758E-12	0.0000	3.310E-12	0.0000	6.037E-05	0.0747
Total	3.949E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.856E-11	0.0000	2.758E-12	0.0000	3.310E-12	0.0000	8.080E-04	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters
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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Water Independent Pathways (Inhalation excludes radon)

Radio-	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cs-137	6.297E-11	0.0051	2.793E-17	0.0000	0.000E+00	0.0000	9.225E-14	0.0000	1.075E-14	0.0000	1.202E-14	0.0000	6.443E-16	0.0000
Eu-152	3.540E-23	0.0000	7.735E-17	0.0000	0.000E+00	0.0000	3.454E-18	0.0000	2.454E-19	0.0000	9.003E-21	0.0000	7.543E-19	0.0000
Ni-63	0.000E+00	0.0000	4.118E-11	0.0034	0.000E+00	0.0000	9.282E-09	0.7570	1.391E-10	0.0113	2.649E-09	0.2160	5.560E-11	0.0045
Sr-90	1.810E-13	0.0000	4.520E-16	0.0000	0.000E+00	0.0000	8.383E-13	0.0001	8.890E-15	0.0000	1.400E-14	0.0000	7.770E-16	0.0000
Total	6.315E-11	0.0051	4.118E-11	0.0034	0.000E+00	0.0000	9.283E-09	0.7571	1.391E-10	0.0113	2.649E-09	0.2160	5.560E-11	0.0045

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

Water Dependent Pathways

Radio-	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
Nuclide	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.308E-11	0.0051
Eu-152	1.898E-19	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.479E-22	0.0000	2.005E-24	0.0000	1.137E-25	0.0000	8.200E-17	0.0000
Ni-63	3.123E-11	0.0025	0.000E+00	0.0000	0.000E+00	0.0000	2.526E-14	0.0000	1.530E-15	0.0000	2.991E-14	0.0000	1.220E-08	0.9948
Sr-90	7.833E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.648E-19	0.0000	5.472E-20	0.0000	6.565E-20	0.0000	1.044E-12	0.0001
Total	3.123E-11	0.0025	0.000E+00	0.0000	0.000E+00	0.0000	2.526E-14	0.0000	1.530E-15	0.0000	2.991E-14	0.0000	1.226E-08	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters
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Dose/Source Ratios Summed Over All Pathways
Parent and Progeny Principal Radionuclide Contributions Indicated

Parent (i)	Product (j)	Thread Fraction	DSR(j,t) At Time in Years (mrem/yr)/(pCi/g) 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
C-14	C-14	1.000E+00	2.377E-04	3.667E-07	6.042E-13	2.518E-33	0.000E+00	3.169E-24	0.000E+00	0.000E+00
Co-60	Co-60	1.000E+00	3.383E+00	2.966E+00	2.280E+00	9.082E-01	6.545E-02	6.575E-06	2.483E-17	0.000E+00
Cs-137+D	Cs-137+D	1.000E+00	7.629E-01	7.454E-01	7.118E-01	6.054E-01	3.813E-01	7.556E-02	7.413E-04	6.308E-11
Eu-152	Eu-152	7.208E-01	1.105E+00	1.049E+00	9.451E-01	6.567E-01	2.321E-01	6.091E-03	1.852E-07	2.551E-23
Eu-152	Eu-152	2.792E-01	4.279E-01	4.062E-01	3.661E-01	2.544E-01	8.991E-02	2.359E-03	7.173E-08	9.883E-24
Eu-152	Gd-152	2.792E-01	2.502E-18	7.308E-18	1.619E-17	4.089E-17	7.705E-17	9.527E-17	9.259E-17	8.200E-17
Eu-152	∑DSR(j)		4.279E-01	4.062E-01	3.661E-01	2.544E-01	8.991E-02	2.359E-03	7.173E-08	8.200E-17
Ni-63	Ni-63	1.000E+00	6.904E-05	6.848E-05	6.739E-05	6.370E-05	5.423E-05	3.082E-05	6.017E-06	1.220E-08
Sr-90+D	Sr-90+D	1.000E+00	1.044E-01	1.019E-01	9.697E-02	8.153E-02	4.968E-02	8.754E-03	6.037E-05	1.044E-12

The DSR includes contributions from associated (half-life ≤ 30 days) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g
Basic Radiation Dose Limit = 2.500E+01 mrem/yr

Nuclide (i)	t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
C-14	1.052E+05	6.817E+07	*4.455E+12	*4.455E+12	*4.455E+12	*4.455E+12	*4.455E+12	*4.455E+12
Co-60	7.390E+00	8.428E+00	1.096E+01	2.753E+01	3.820E+02	3.803E+06	*1.132E+15	*1.132E+15
Cs-137	3.277E+01	3.354E+01	3.512E+01	4.130E+01	6.557E+01	3.308E+02	3.372E+04	3.963E+11
Eu-152	1.631E+01	1.718E+01	1.907E+01	2.744E+01	7.764E+01	2.958E+03	9.730E+07	*1.765E+14
Ni-63	3.621E+05	3.650E+05	3.710E+05	3.924E+05	4.610E+05	8.112E+05	4.155E+06	2.049E+09
Sr-90	2.394E+02	2.454E+02	2.578E+02	3.066E+02	5.033E+02	2.856E+03	4.141E+05	2.394E+13

*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)
and Single Radionuclide Soil Guidelines G(i,t) in pCi/g
at tmin = time of minimum single radionuclide soil guideline
and at tmax = time of maximum total dose = 0.000E+00 years

Nuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
C-14	1.000E+00	0.000E+00	2.377E-04	1.052E+05	2.377E-04	1.052E+05
Co-60	1.000E+00	0.000E+00	3.383E+00	7.390E+00	3.383E+00	7.390E+00
Cs-137	1.000E+00	0.000E+00	7.629E-01	3.277E+01	7.629E-01	3.277E+01
Eu-152	1.000E+00	0.000E+00	1.533E+00	1.631E+01	1.533E+00	1.631E+01
Ni-63	1.000E+00	0.000E+00	6.904E-05	3.621E+05	6.904E-05	3.621E+05
Sr-90	1.000E+00	0.000E+00	1.044E-01	2.394E+02	1.044E-01	2.394E+02

Summary : RESRAD Default Parameters
File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\AREA FACTOR\1M\FCS SOIL AF 10 DCGL 1M.RAD

Individual Nuclide Dose Summed Over All Pathways
Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	DOSE(j,t), mrem/yr							
		t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
C-14	C-14	1.000E+00	2.377E-04	3.667E-07	6.042E-13	0.000E+00	0.000E+00	3.169E-24	0.000E+00	0.000E+00
Co-60	Co-60	1.000E+00	3.383E+00	2.966E+00	2.280E+00	9.082E-01	6.545E-02	6.575E-06	2.483E-17	0.000E+00
Cs-137	Cs-137	1.000E+00	7.629E-01	7.454E-01	7.118E-01	6.054E-01	3.813E-01	7.556E-02	7.413E-04	6.308E-11
Eu-152	Eu-152	7.208E-01	1.105E+00	1.049E+00	9.451E-01	6.567E-01	2.321E-01	6.091E-03	1.852E-07	2.551E-23
Eu-152	Eu-152	2.792E-01	4.279E-01	4.062E-01	3.661E-01	2.544E-01	8.991E-02	2.359E-03	7.173E-08	9.883E-24
Eu-152	∑DOSE(j)		1.533E+00	1.455E+00	1.311E+00	9.111E-01	3.220E-01	8.451E-03	2.569E-07	3.540E-23
Gd-152	Eu-152	2.792E-01	2.502E-18	7.308E-18	1.619E-17	4.089E-17	7.705E-17	9.527E-17	9.259E-17	8.200E-17
Ni-63	Ni-63	1.000E+00	6.904E-05	6.848E-05	6.739E-05	6.370E-05	5.423E-05	3.082E-05	6.017E-06	1.220E-08
Sr-90	Sr-90	1.000E+00	1.044E-01	1.019E-01	9.697E-02	8.153E-02	4.968E-02	8.754E-03	6.037E-05	1.044E-12

THF(i) is the thread fraction of the parent nuclide.

Individual Nuclide Soil Concentration
Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	S(j,t), pCi/g							
		t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
C-14	C-14	1.000E+00	1.000E+00	1.305E-03	2.156E-09	9.067E-30	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	Co-60	1.000E+00	1.000E+00	8.768E-01	6.740E-01	2.684E-01	1.935E-02	1.944E-06	7.341E-18	0.000E+00
Cs-137	Cs-137	1.000E+00	1.000E+00	9.771E-01	9.330E-01	7.936E-01	4.998E-01	9.910E-02	9.732E-04	9.133E-11
Eu-152	Eu-152	7.208E-01	7.208E-01	6.843E-01	6.167E-01	4.285E-01	1.514E-01	3.974E-03	1.208E-07	1.873E-23
Eu-152	Eu-152	2.792E-01	2.792E-01	2.651E-01	2.389E-01	1.660E-01	5.866E-02	1.540E-03	4.681E-08	7.254E-24
Eu-152	∑S(j):		1.000E+00	9.493E-01	8.555E-01	5.945E-01	2.101E-01	5.514E-03	1.676E-07	2.598E-23
Gd-152	Eu-152	2.792E-01	0.000E+00	1.746E-15	4.977E-15	1.397E-14	2.719E-14	3.413E-14	3.398E-14	3.282E-14
Ni-63	Ni-63	1.000E+00	1.000E+00	9.927E-01	9.783E-01	9.296E-01	8.034E-01	4.821E-01	1.120E-01	6.776E-04
Sr-90	Sr-90	1.000E+00	1.000E+00	9.762E-01	9.304E-01	7.863E-01	4.861E-01	9.030E-02	7.364E-04	3.606E-11

THF(i) is the thread fraction of the parent nuclide.

RESCALC.EXE execution time = 0.89 seconds