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Dose Conversion Factor (and Related) Parameter Summary

Dose Library: Zion BFM 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	Co-60 (Source: FGR 12)	1.622E+01	1.622E+01	DCF1(2)
A-1	Cs-134 (Source: FGR 12)	9.472E+00	9.472E+00	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	Eu-154 (Source: FGR 12)	7.678E+00	7.678E+00	DCF1(6)
A-1	Gd-152 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1(7)
A-1	H-3 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1(8)
A-1	Nd-144 (Source: Zion BFM)	0.000E+00	-1.000E+00	DCF1(9)
A-1	Ni-63 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1(10)
A-1	Sm-148 (Source: Zion BFM)	0.000E+00	-1.000E+00	DCF1(11)
A-1	Sr-90 (Source: FGR 12)	7.043E-04	7.043E-04	DCF1(12)
A-1	Y-90 (Source: FGR 12)	2.391E-02	2.391E-02	DCF1(13)
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	Co-60	2.190E-04	2.190E-04	DCF2(1)
B-1	Cs-134	4.620E-05	4.620E-05	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	Eu-154	2.860E-04	2.860E-04	DCF2(6)
B-1	Gd-152	2.430E-01	2.430E-01	DCF2(7)
B-1	H-3	6.400E-08	6.400E-08	DCF2(8)
B-1	Nd-144	7.040E-02	-1.000E+00	DCF2(9)
B-1	Ni-63	6.290E-06	6.290E-06	DCF2(10)
B-1	Sm-148	7.340E-02	-1.000E+00	DCF2(11)
B-1	Sr-90+D	1.308E-03	1.300E-03	DCF2(12)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	Co-60	2.690E-05	2.690E-05	DCF3(1)
D-1	Cs-134	7.330E-05	7.330E-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	Eu-154	9.550E-06	9.550E-06	DCF3(6)
D-1	Gd-152	1.610E-04	1.610E-04	DCF3(7)
D-1	H-3	6.400E-08	6.400E-08	DCF3(8)
D-1	Nd-144	1.510E-04	-1.000E+00	DCF3(9)
D-1	Ni-63	5.770E-07	5.770E-07	DCF3(10)
D-1	Sm-148	1.580E-04	-1.000E+00	DCF3(11)
D-1	Sr-90+D	1.528E-04	1.420E-04	DCF3(12)
D-34	Food transfer factors:			
D-34	Co-60 , plant/soil concentration ratio, dimensionless	8.000E-02	8.000E-02	RTF(1,1)
D-34	Co-60 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.800E-02	2.000E-02	RTF(1,2)
D-34	Co-60 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.200E-03	2.000E-03	RTF(1,3)
D-34				
D-34	Cs-134 , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF(2,1)
D-34	Cs-134 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	6.500E-02	3.000E-02	RTF(2,2)
D-34	Cs-134 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.400E-02	8.000E-03	RTF(2,3)
D-34				

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Dose Conversion Factor (and Related) Parameter Summary (continued)

Dose Library: Zion BFM Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-34	Cs-137+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF(3,1)
D-34	Cs-137+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	6.500E-02	3.000E-02	RTF(3,2)
D-34	Cs-137+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.400E-02	8.000E-03	RTF(3,3)
D-34				
D-34	Eu-152 , plant/soil concentration ratio, dimensionless	2.000E-03	2.500E-03	RTF(4,1)
D-34	Eu-152 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	4.000E-03	2.000E-03	RTF(4,2)
D-34	Eu-152 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-05	5.000E-05	RTF(4,3)
D-34				
D-34	Eu-154 , plant/soil concentration ratio, dimensionless	2.000E-03	2.500E-03	RTF(6,1)
D-34	Eu-154 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	4.000E-03	2.000E-03	RTF(6,2)
D-34	Eu-154 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-05	5.000E-05	RTF(6,3)
D-34				
D-34	Gd-152 , plant/soil concentration ratio, dimensionless	2.000E-03	2.500E-03	RTF(7,1)
D-34	Gd-152 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-03	2.000E-03	RTF(7,2)
D-34	Gd-152 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-05	2.000E-05	RTF(7,3)
D-34				
D-34	H-3 , plant/soil concentration ratio, dimensionless	4.800E+00	4.800E+00	RTF(8,1)
D-34	H-3 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.200E-02	1.200E-02	RTF(8,2)
D-34	H-3 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-02	1.000E-02	RTF(8,3)
D-34				
D-34	Nd-144 , plant/soil concentration ratio, dimensionless	2.000E-03	2.400E-03	RTF(9,1)
D-34	Nd-144 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-03	2.000E-03	RTF(9,2)
D-34	Nd-144 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-05	2.000E-05	RTF(9,3)
D-34				
D-34	Ni-63 , plant/soil concentration ratio, dimensionless	5.000E-02	5.000E-02	RTF(10,1)
D-34	Ni-63 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	9.200E-03	5.000E-03	RTF(10,2)
D-34	Ni-63 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.200E-02	2.000E-02	RTF(10,3)
D-34				
D-34	Sm-148 , plant/soil concentration ratio, dimensionless	2.000E-03	2.500E-03	RTF(11,1)
D-34	Sm-148 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-03	2.000E-03	RTF(11,2)
D-34	Sm-148 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-05	2.000E-05	RTF(11,3)
D-34				
D-34	Sr-90+D , plant/soil concentration ratio, dimensionless	5.900E-01	3.000E-01	RTF(12,1)
D-34	Sr-90+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.300E-02	8.000E-03	RTF(12,2)
D-34	Sr-90+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.700E-03	2.000E-03	RTF(12,3)
D-34				
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Co-60 , fish	3.000E+02	3.000E+02	BIOFAC(1,1)
D-5	Co-60 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC(1,2)
D-5				
D-5	Cs-134 , fish	2.000E+03	2.000E+03	BIOFAC(2,1)
D-5	Cs-134 , crustacea and mollusks	1.000E+02	1.000E+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				

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Dose Conversion Factor (and Related) Parameter Summary (continued)

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Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-5	Eu-154 , fish	5.000E+01	5.000E+01	BIOFAC(6,1)
D-5	Eu-154 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(6,2)
D-5				
D-5	Gd-152 , fish	2.500E+01	2.500E+01	BIOFAC(7,1)
D-5	Gd-152 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(7,2)
D-5				
D-5	H-3 , fish	1.000E+00	1.000E+00	BIOFAC(8,1)
D-5	H-3 , crustacea and mollusks	1.000E+00	1.000E+00	BIOFAC(8,2)
D-5				
D-5	Nd-144 , fish	1.000E+02	1.000E+02	BIOFAC(9,1)
D-5	Nd-144 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(9,2)
D-5				
D-5	Ni-63 , fish	1.000E+02	1.000E+02	BIOFAC(10,1)
D-5	Ni-63 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC(10,2)
D-5				
D-5	Sm-148 , fish	2.500E+01	2.500E+01	BIOFAC(11,1)
D-5	Sm-148 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(11,2)
D-5				
D-5	Sr-90+D , fish	6.000E+01	6.000E+01	BIOFAC(12,1)
D-5	Sr-90+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC(12,2)

#For DCF1(xxx) only, factors are for infinite depth & area. See ETEG 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)	6.450E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.120E+01	2.000E+00	---	THICK0
R011	Fraction of contamination that is submerged	1.000E+00	0.000E+00	---	SUBMFRACT
R011	Length parallel to aquifer flow (m)	2.870E+02	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)	1.000E+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)	4.049E+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): Co-60	1.000E+00	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Cs-134	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): Eu-154	1.000E+00	0.000E+00	---	S1(6)
R012	Initial principal radionuclide (pCi/g): H-3	1.000E+00	0.000E+00	---	S1(8)
R012	Initial principal radionuclide (pCi/g): Ni-63	1.000E+00	0.000E+00	---	S1(10)
R012	Initial principal radionuclide (pCi/g): Sr-90	1.000E+00	0.000E+00	---	S1(12)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Cs-134	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): Eu-154	not used	0.000E+00	---	W1(6)
R012	Concentration in groundwater (pCi/L): H-3	not used	0.000E+00	---	W1(8)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(10)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(12)
R013	Cover depth (m)	3.600E+00	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	1.800E+00	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	1.500E-03	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	1.800E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.500E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	3.700E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	6.600E-02	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	2.880E+03	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	2.890E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	4.200E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	7.200E+00	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	6.250E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	8.300E-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	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+06	1.000E+06	---	WAREA

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	Romberg failures occurred	EPS
R014	Density of saturated zone (g/cm**3)	1.800E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.500E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.900E-01	2.000E-01	---	EPSZ
R014	Saturated zone field capacity	6.600E-02	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.695E+03	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	1.800E-03	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)	5.600E+00	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	2.250E+03	2.500E+02	---	UW
R015	Number of unsaturated zone strata	0	1	---	NS
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.294E+03	1.000E+03	---	DCNUCC (1)
R016	Saturated zone (cm**3/g)	1.294E+03	1.000E+03	---	DCNUCS (1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.684E-05	ALEACH (1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (1)
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	2.144E+03	4.600E+03	---	DCNUCC (2)
R016	Saturated zone (cm**3/g)	2.144E+03	4.600E+03	---	DCNUCS (2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.016E-05	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)	2.144E+03	4.600E+03	---	DCNUCC (3)
R016	Saturated zone (cm**3/g)	2.144E+03	4.600E+03	---	DCNUCS (3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.016E-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)	7.268E+03	-1.000E+00	---	DCNUCC (4)
R016	Saturated zone (cm**3/g)	7.268E+03	-1.000E+00	---	DCNUCS (4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.998E-06	ALEACH (4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (4)
R016	Distribution coefficients for Eu-154				
R016	Contaminated zone (cm**3/g)	7.268E+03	-1.000E+00	---	DCNUCC (6)
R016	Saturated zone (cm**3/g)	7.268E+03	-1.000E+00	---	DCNUCS (6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.998E-06	ALEACH (6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (6)
R016	Distribution coefficients for H-3				
R016	Contaminated zone (cm**3/g)	8.000E-02	0.000E+00	---	DCNUCC (8)
R016	Saturated zone (cm**3/g)	8.000E-02	0.000E+00	---	DCNUCS (8)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.631E-02	ALEACH (8)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (8)

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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)	1.132E+03	1.000E+03	---	DCNUCC (10)
R016	Saturated zone (cm**3/g)	1.132E+03	1.000E+03	---	DCNUCS (10)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.925E-05	ALEACH (10)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (10)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	1.310E+02	3.000E+01	---	DCNUCC (12)
R016	Saturated zone (cm**3/g)	1.310E+02	3.000E+01	---	DCNUCS (12)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.661E-04	ALEACH (12)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (12)
R016	Distribution coefficients for daughter Gd-152				
R016	Contaminated zone (cm**3/g)	-1.000E+00	-1.000E+00	9.347E+02	DCNUCC (7)
R016	Saturated zone (cm**3/g)	-1.000E+00	-1.000E+00	9.347E+02	DCNUCS (7)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.331E-05	ALEACH (7)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (7)
R016	Distribution coefficients for daughter Nd-144				
R016	Contaminated zone (cm**3/g)	1.580E+02	1.580E+02	---	DCNUCC (9)
R016	Saturated zone (cm**3/g)	1.580E+02	1.580E+02	---	DCNUCS (9)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.377E-04	ALEACH (9)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (9)
R016	Distribution coefficients for daughter Sm-148				
R016	Contaminated zone (cm**3/g)	-1.000E+00	-1.000E+00	9.347E+02	DCNUCC (11)
R016	Saturated zone (cm**3/g)	-1.000E+00	-1.000E+00	9.347E+02	DCNUCS (11)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.331E-05	ALEACH (11)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (11)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	2.350E-05	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	5.500E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	2.700E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	6.490E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.240E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS

Summary : RESRAD Default

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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	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)
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)	1.120E+02	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	2.140E+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	1.000E+00	-1	---	FPLANT
R018	Contamination fraction of meat	1.000E+00	-1	---	FMEAT
R018	Contamination fraction of milk	1.000E+00	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	2.830E+01	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	6.520E+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)	5.000E-01	5.000E-01	---	LSI

Summary : RESRAD Default

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	3.100E+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)	1.260E+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)	1.910E+00	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	2.500E-01	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	1.200E-01	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	8.200E-02	8.000E-02	---	TE(3)
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	7.000E-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	2.150E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	not used	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07	---	EVSN
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10	---	REVSN
C14	Fraction of grain in beef cattle feed	not used	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	not used	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	1.000E+00	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

Summary : RESRAD Default

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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	32	---	---	NPTS
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	active

Summary : RESRAD Default

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Contaminated Zone Dimensions	Initial Soil Concentrations, pCi/g	
Area: 64500.00 square meters	Co-60	1.000E+00
Thickness: 11.20 meters	Cs-134	1.000E+00
Cover Depth: 3.60 meters	Cs-137	1.000E+00
	Eu-152	1.000E+00
	Eu-154	1.000E+00
	H-3	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	4.049E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	1.081E+00	1.027E+00	9.383E-01	7.297E-01	3.276E-01	7.771E-02	7.209E-04	6.531E-06
M(t):	4.323E-02	4.109E-02	3.753E-02	2.919E-02	1.310E-02	3.109E-03	2.884E-05	2.612E-07

Maximum TDOSE(t): 1.081E+00 mrem/yr at t = 0.000E+00 years

Summary : RESRAD Default

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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- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Co-60	4.753E-22	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-134	1.519E-26	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	1.742E-27	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
Eu-152	4.313E-24	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
Eu-154	8.905E-24	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
H-3	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
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	0.000E+00	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	0.000E+00	0.0000
Total	4.886E-22	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

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- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Co-60	9.310E-03	0.0086	0.000E+00	0.0000	0.000E+00	0.0000	1.383E-03	0.0013	6.521E-03	0.0060	2.145E-03	0.0020	1.936E-02	0.0179
Cs-134	1.388E-02	0.0128	0.000E+00	0.0000	0.000E+00	0.0000	2.043E-03	0.0019	1.089E-02	0.0101	1.398E-02	0.0129	4.079E-02	0.0377
Cs-137	1.102E-02	0.0102	0.000E+00	0.0000	0.000E+00	0.0000	1.622E-03	0.0015	8.645E-03	0.0080	1.110E-02	0.0103	3.238E-02	0.0300
Eu-152	4.154E-04	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	6.061E-05	0.0001	2.004E-05	0.0000	1.792E-06	0.0000	4.979E-04	0.0005
Eu-154	6.034E-04	0.0006	0.000E+00	0.0000	0.000E+00	0.0000	8.803E-05	0.0001	2.911E-05	0.0000	2.603E-06	0.0000	7.231E-04	0.0007
H-3	1.007E-01	0.0932	0.000E+00	0.0000	0.000E+00	0.0000	1.512E-02	0.0140	6.296E-03	0.0058	2.798E-02	0.0259	1.501E-01	0.1389
Ni-63	2.428E-04	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	3.581E-05	0.0000	2.696E-05	0.0000	5.590E-04	0.0005	8.645E-04	0.0008
Sr-90	5.500E-01	0.5089	0.000E+00	0.0000	0.000E+00	0.0000	9.108E-02	0.0843	8.697E-02	0.0805	1.080E-01	0.0999	8.360E-01	0.7735
Total	6.862E-01	0.6349	0.000E+00	0.0000	0.000E+00	0.0000	1.114E-01	0.1031	1.194E-01	0.1105	1.638E-01	0.1515	1.081E+00	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default

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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- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Co-60	4.256E-22	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-134	1.113E-26	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	1.746E-27	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
Eu-152	4.192E-24	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
Eu-154	8.401E-24	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
H-3	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
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	0.000E+00	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	0.000E+00	0.0000
Total	4.382E-22	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

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- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Co-60	8.162E-03	0.0079	0.000E+00	0.0000	0.000E+00	0.0000	1.212E-03	0.0012	5.717E-03	0.0056	1.881E-03	0.0018	1.697E-02	0.0165
Cs-134	9.922E-03	0.0097	0.000E+00	0.0000	0.000E+00	0.0000	1.460E-03	0.0014	7.784E-03	0.0076	9.994E-03	0.0097	2.916E-02	0.0284
Cs-137	1.077E-02	0.0105	0.000E+00	0.0000	0.000E+00	0.0000	1.585E-03	0.0015	8.448E-03	0.0082	1.085E-02	0.0106	3.165E-02	0.0308
Eu-152	3.947E-04	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	5.758E-05	0.0001	1.904E-05	0.0000	1.702E-06	0.0000	4.730E-04	0.0005
Eu-154	5.566E-04	0.0005	0.000E+00	0.0000	0.000E+00	0.0000	8.121E-05	0.0001	2.686E-05	0.0000	2.401E-06	0.0000	6.671E-04	0.0006
H-3	8.823E-02	0.0859	0.000E+00	0.0000	0.000E+00	0.0000	1.325E-02	0.0129	5.515E-03	0.0054	2.451E-02	0.0239	1.315E-01	0.1280
Ni-63	2.411E-04	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	3.556E-05	0.0000	2.677E-05	0.0000	5.551E-04	0.0005	8.585E-04	0.0008
Sr-90	5.368E-01	0.5225	0.000E+00	0.0000	0.000E+00	0.0000	8.890E-02	0.0865	8.489E-02	0.0826	1.054E-01	0.1026	8.160E-01	0.7943
Total	6.551E-01	0.6377	0.000E+00	0.0000	0.000E+00	0.0000	1.066E-01	0.1037	1.124E-01	0.1094	1.532E-01	0.1491	1.027E+00	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default

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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- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Co-60	3.413E-22	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-134	5.982E-27	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	1.756E-27	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
Eu-152	3.960E-24	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
Eu-154	7.477E-24	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
H-3	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
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	0.000E+00	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	0.000E+00	0.0000
Total	3.527E-22	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

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- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Co-60	6.275E-03	0.0067	0.000E+00	0.0000	0.000E+00	0.0000	9.319E-04	0.0010	4.395E-03	0.0047	1.446E-03	0.0015	1.305E-02	0.0139
Cs-134	5.070E-03	0.0054	0.000E+00	0.0000	0.000E+00	0.0000	7.462E-04	0.0008	3.978E-03	0.0042	5.107E-03	0.0054	1.490E-02	0.0159
Cs-137	1.028E-02	0.0110	0.000E+00	0.0000	0.000E+00	0.0000	1.514E-03	0.0016	8.068E-03	0.0086	1.036E-02	0.0110	3.023E-02	0.0322
Eu-152	3.563E-04	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	5.198E-05	0.0001	1.719E-05	0.0000	1.537E-06	0.0000	4.270E-04	0.0005
Eu-154	4.737E-04	0.0005	0.000E+00	0.0000	0.000E+00	0.0000	6.911E-05	0.0001	2.286E-05	0.0000	2.043E-06	0.0000	5.677E-04	0.0006
H-3	6.768E-02	0.0721	0.000E+00	0.0000	0.000E+00	0.0000	1.016E-02	0.0108	4.230E-03	0.0045	1.880E-02	0.0200	1.009E-01	0.1075
Ni-63	2.378E-04	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	3.507E-05	0.0000	2.640E-05	0.0000	5.474E-04	0.0006	8.467E-04	0.0009
Sr-90	5.114E-01	0.5450	0.000E+00	0.0000	0.000E+00	0.0000	8.469E-02	0.0903	8.087E-02	0.0862	1.004E-01	0.1070	7.774E-01	0.8285
Total	6.018E-01	0.6414	0.000E+00	0.0000	0.000E+00	0.0000	9.820E-02	0.1047	1.016E-01	0.1083	1.367E-01	0.1457	9.383E-01	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default

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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- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Co-60	1.575E-22	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-134	6.801E-28	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	1.789E-27	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
Eu-152	3.243E-24	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
Eu-154	4.973E-24	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
H-3	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
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	0.000E+00	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	0.000E+00	0.0000
Total	1.657E-22	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

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- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Co-60	2.499E-03	0.0034	0.000E+00	0.0000	0.000E+00	0.0000	3.712E-04	0.0005	1.750E-03	0.0024	5.758E-04	0.0008	5.196E-03	0.0071
Cs-134	4.836E-04	0.0007	0.000E+00	0.0000	0.000E+00	0.0000	7.117E-05	0.0001	3.794E-04	0.0005	4.870E-04	0.0007	1.421E-03	0.0019
Cs-137	8.756E-03	0.0120	0.000E+00	0.0000	0.000E+00	0.0000	1.289E-03	0.0018	6.869E-03	0.0094	8.819E-03	0.0121	2.573E-02	0.0353
Eu-152	2.490E-04	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	3.632E-05	0.0000	1.201E-05	0.0000	1.074E-06	0.0000	2.984E-04	0.0004
Eu-154	2.693E-04	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.929E-05	0.0001	1.299E-05	0.0000	1.162E-06	0.0000	3.228E-04	0.0004
H-3	2.676E-02	0.0367	0.000E+00	0.0000	0.000E+00	0.0000	4.018E-03	0.0055	1.672E-03	0.0023	7.433E-03	0.0102	3.988E-02	0.0547
Ni-63	2.265E-04	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	3.341E-05	0.0000	2.515E-05	0.0000	5.215E-04	0.0007	8.065E-04	0.0011
Sr-90	4.316E-01	0.5914	0.000E+00	0.0000	0.000E+00	0.0000	7.147E-02	0.0979	6.825E-02	0.0935	8.475E-02	0.1161	6.561E-01	0.8991
Total	4.708E-01	0.6452	0.000E+00	0.0000	0.000E+00	0.0000	7.733E-02	0.1060	7.897E-02	0.1082	1.026E-01	0.1406	7.297E-01	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default

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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 = 4.049E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Co-60	5.429E-24	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-134	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	1.940E-27	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
Eu-152	1.359E-24	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
Eu-154	8.418E-25	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
H-3	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
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	0.000E+00	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	0.000E+00	0.0000
Total	7.632E-24	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

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 4.049E+01 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Co-60	4.533E-05	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	6.732E-06	0.0000	3.175E-05	0.0001	1.044E-05	0.0000	9.425E-05	0.0003
Cs-134	1.734E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.552E-09	0.0000	1.361E-08	0.0000	1.747E-08	0.0000	5.097E-08	0.0000
Cs-137	4.344E-03	0.0133	0.000E+00	0.0000	0.000E+00	0.0000	6.394E-04	0.0020	3.408E-03	0.0104	4.376E-03	0.0134	1.277E-02	0.0390
Eu-152	5.225E-05	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	7.622E-06	0.0000	2.521E-06	0.0000	2.253E-07	0.0000	6.261E-05	0.0002
Eu-154	2.302E-05	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	3.358E-06	0.0000	1.111E-06	0.0000	9.929E-08	0.0000	2.759E-05	0.0001
H-3	4.698E-04	0.0014	0.000E+00	0.0000	0.000E+00	0.0000	7.055E-05	0.0002	2.937E-05	0.0001	1.305E-04	0.0004	7.003E-04	0.0021
Ni-63	1.833E-04	0.0006	0.000E+00	0.0000	0.000E+00	0.0000	2.703E-05	0.0001	2.035E-05	0.0001	4.220E-04	0.0013	6.526E-04	0.0020
Sr-90	2.061E-01	0.6291	0.000E+00	0.0000	0.000E+00	0.0000	3.413E-02	0.1042	3.259E-02	0.0995	4.047E-02	0.1235	3.133E-01	0.9563
Total	2.112E-01	0.6447	0.000E+00	0.0000	0.000E+00	0.0000	3.488E-02	0.1065	3.608E-02	0.1102	4.541E-02	0.1386	3.276E-01	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default

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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- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Co-60	7.588E-27	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-134	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	2.273E-27	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
Eu-152	2.488E-25	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
Eu-154	2.627E-26	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
H-3	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
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	0.000E+00	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	0.000E+00	0.0000
Total	2.850E-25	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

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- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Co-60	1.809E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.687E-09	0.0000	1.267E-08	0.0000	4.168E-09	0.0000	3.762E-08	0.0000
Cs-134	3.654E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.378E-18	0.0000	2.867E-17	0.0000	3.681E-17	0.0000	1.074E-16	0.0000
Cs-137	1.106E-03	0.0142	0.000E+00	0.0000	0.000E+00	0.0000	1.628E-04	0.0021	8.678E-04	0.0112	1.114E-03	0.0143	3.251E-03	0.0418
Eu-152	2.481E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.619E-07	0.0000	1.197E-07	0.0000	1.070E-08	0.0000	2.973E-06	0.0000
Eu-154	1.894E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.762E-08	0.0000	9.136E-09	0.0000	8.167E-10	0.0000	2.269E-07	0.0000
H-3	1.760E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.643E-08	0.0000	1.100E-08	0.0000	4.890E-08	0.0000	2.624E-07	0.0000
Ni-63	1.212E-04	0.0016	0.000E+00	0.0000	0.000E+00	0.0000	1.788E-05	0.0002	1.346E-05	0.0002	2.791E-04	0.0036	4.317E-04	0.0056
Sr-90	4.870E-02	0.6266	0.000E+00	0.0000	0.000E+00	0.0000	8.065E-03	0.1038	7.701E-03	0.0991	9.563E-03	0.1231	7.403E-02	0.9526
Total	4.993E-02	0.6425	0.000E+00	0.0000	0.000E+00	0.0000	8.246E-03	0.1061	8.583E-03	0.1104	1.096E-02	0.1410	7.771E-02	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default

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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- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
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-134	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	3.872E-27	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
Eu-152	8.281E-28	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
Eu-154	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
H-3	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
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	0.000E+00	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	0.000E+00	0.0000
Total	4.700E-27	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

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- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Co-60	6.832E-20	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.015E-20	0.0000	4.785E-20	0.0000	1.574E-20	0.0000	1.421E-19	0.0000
Cs-134	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	1.115E-05	0.0155	0.000E+00	0.0000	0.000E+00	0.0000	1.641E-06	0.0023	8.746E-06	0.0121	1.123E-05	0.0156	3.276E-05	0.0454
Eu-152	8.849E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.291E-11	0.0000	4.269E-12	0.0000	3.817E-13	0.0000	1.060E-10	0.0000
Eu-154	1.865E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.721E-15	0.0000	8.998E-16	0.0000	8.044E-17	0.0000	2.235E-14	0.0000
H-3	5.375E-19	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.072E-20	0.0000	3.360E-20	0.0000	1.493E-19	0.0000	8.011E-19	0.0000
Ni-63	3.023E-05	0.0419	0.000E+00	0.0000	0.000E+00	0.0000	4.460E-06	0.0062	3.358E-06	0.0047	6.962E-05	0.0966	1.077E-04	0.1493
Sr-90	3.819E-04	0.5297	0.000E+00	0.0000	0.000E+00	0.0000	6.324E-05	0.0877	6.039E-05	0.0838	7.499E-05	0.1040	5.805E-04	0.8052
Total	4.233E-04	0.5871	0.000E+00	0.0000	0.000E+00	0.0000	6.934E-05	0.0962	7.249E-05	0.1006	1.558E-04	0.2162	7.209E-04	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default

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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- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
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-134	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	2.497E-26	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.851E-12	0.0000	7.944E-12	0.0000	1.411E-11	0.0000	0.000E+00	0.0000
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.739E-16	0.0000	1.309E-17	0.0000	3.238E-18	0.0000	0.000E+00	0.0000
Eu-154	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
H-3	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
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.194E-06	0.1828	1.517E-07	0.0232	4.351E-06	0.6662	0.000E+00	0.0000
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.137E-10	0.0000	2.040E-11	0.0000	3.495E-11	0.0000	0.000E+00	0.0000
Total	2.497E-26	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.194E-06	0.1829	1.517E-07	0.0232	4.351E-06	0.6662	0.000E+00	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+03 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
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-134	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	1.145E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.685E-13	0.0000	8.984E-13	0.0000	1.153E-12	0.0000	3.427E-11	0.0000
Eu-152	2.961E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.319E-16	0.0000	7.142E-17	0.0000	1.277E-17	0.0000	3.967E-15	0.0000
Eu-154	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
H-3	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
Ni-63	2.341E-07	0.0358	0.000E+00	0.0000	0.000E+00	0.0000	3.453E-08	0.0053	2.600E-08	0.0040	5.391E-07	0.0825	6.531E-06	1.0000
Sr-90	1.629E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.698E-12	0.0000	2.577E-12	0.0000	3.200E-12	0.0000	1.938E-10	0.0000
Total	2.341E-07	0.0358	0.000E+00	0.0000	0.000E+00	0.0000	3.453E-08	0.0053	2.600E-08	0.0040	5.391E-07	0.0825	6.531E-06	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default

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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	4.049E+01	1.000E+02	3.000E+02	1.000E+03
Co-60	Co-60	1.000E+00	1.936E-02	1.697E-02	1.305E-02	5.196E-03	9.425E-05	3.762E-08	1.421E-19	0.000E+00
Cs-134	Cs-134	1.000E+00	4.079E-02	2.916E-02	1.490E-02	1.421E-03	5.097E-08	1.074E-16	0.000E+00	0.000E+00
Cs-137+D	Cs-137+D	1.000E+00	3.238E-02	3.165E-02	3.023E-02	2.573E-02	1.277E-02	3.251E-03	3.276E-05	3.427E-11
Eu-152	Eu-152	7.210E-01	3.590E-04	3.411E-04	3.079E-04	2.151E-04	4.514E-05	2.144E-06	7.646E-11	4.474E-26
Eu-152	Eu-152	2.790E-01	1.389E-04	1.320E-04	1.191E-04	8.324E-05	1.747E-05	8.295E-07	2.959E-11	1.731E-26
Eu-152	Gd-152	2.790E-01	2.545E-16	4.193E-16	7.248E-16	1.578E-15	3.140E-15	3.531E-15	3.535E-15	3.967E-15
Eu-152	Sm-148	2.790E-01	6.277E-30	5.964E-30	5.384E-30	3.763E-30	7.913E-31	3.963E-32	2.143E-33	4.673E-29
Eu-152	Nd-144	2.790E-01	4.525E-38	4.524E-38	4.523E-38	4.519E-38	4.500E-38	4.463E-38	4.342E-38	3.942E-38
Eu-152	∑DSR(j)		1.389E-04	1.320E-04	1.191E-04	8.324E-05	1.747E-05	8.295E-07	2.959E-11	3.967E-15
Eu-154	Eu-154	1.000E+00	7.231E-04	6.671E-04	5.677E-04	3.228E-04	2.759E-05	2.269E-07	2.235E-14	1.447E-38
H-3	H-3	1.000E+00	1.501E-01	1.315E-01	1.009E-01	3.988E-02	7.003E-04	2.624E-07	8.011E-19	0.000E+00
Ni-63	Ni-63	1.000E+00	8.645E-04	8.585E-04	8.467E-04	8.065E-04	6.526E-04	4.317E-04	1.077E-04	6.531E-06
Sr-90+D	Sr-90+D	1.000E+00	8.360E-01	8.160E-01	7.774E-01	6.561E-01	3.133E-01	7.403E-02	5.805E-04	1.938E-10

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	4.049E+01	1.000E+02	3.000E+02	1.000E+03
Co-60		1.291E+03	1.473E+03	1.916E+03	4.811E+03	2.653E+05	6.646E+08	*1.113E+15	*1.113E+15
Cs-134		6.128E+02	8.573E+02	1.678E+03	1.759E+04	4.905E+08	*1.283E+15	*1.283E+15	*1.283E+15
Cs-137		7.720E+02	7.899E+02	8.271E+02	9.715E+02	1.958E+03	7.690E+03	7.630E+05	7.295E+11
Eu-152		5.021E+04	5.285E+04	5.855E+04	8.379E+04	3.993E+05	8.408E+06	2.357E+11	*1.727E+14
Eu-154		3.457E+04	3.748E+04	4.404E+04	7.745E+04	9.062E+05	1.102E+08	*2.685E+14	*2.685E+14
H-3		1.665E+02	1.901E+02	2.478E+02	6.269E+02	3.570E+04	9.529E+07	*9.621E+15	*9.621E+15
Ni-63		2.892E+04	2.912E+04	2.953E+04	3.100E+04	3.831E+04	5.791E+04	2.322E+05	3.828E+06
Sr-90		2.990E+01	3.064E+01	3.216E+01	3.811E+01	7.980E+01	3.377E+02	4.307E+04	1.290E+11

*At specific activity limit

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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)
Co-60	1.000E+00	0.000E+00	1.936E-02	1.291E+03	1.936E-02	1.291E+03
Cs-134	1.000E+00	0.000E+00	4.079E-02	6.128E+02	4.079E-02	6.128E+02
Cs-137	1.000E+00	0.000E+00	3.238E-02	7.720E+02	3.238E-02	7.720E+02
Eu-152	1.000E+00	0.000E+00	4.979E-04	5.021E+04	4.979E-04	5.021E+04
Eu-154	1.000E+00	0.000E+00	7.231E-04	3.457E+04	7.231E-04	3.457E+04
H-3	1.000E+00	0.000E+00	1.501E-01	1.665E+02	1.501E-01	1.665E+02
Ni-63	1.000E+00	0.000E+00	8.645E-04	2.892E+04	8.645E-04	2.892E+04
Sr-90	1.000E+00	0.000E+00	8.360E-01	2.990E+01	8.360E-01	2.990E+01

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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	4.049E+01	1.000E+02	3.000E+02	1.000E+03	
Co-60	Co-60	1.000E+00	1.936E-02	1.697E-02	1.305E-02	5.196E-03	9.425E-05	3.762E-08	1.421E-19	0.000E+00	
Cs-134	Cs-134	1.000E+00	4.079E-02	2.916E-02	1.490E-02	1.421E-03	5.097E-08	1.074E-16	0.000E+00	0.000E+00	
Cs-137	Cs-137	1.000E+00	3.238E-02	3.165E-02	3.023E-02	2.573E-02	1.277E-02	3.251E-03	3.276E-05	3.427E-11	
Eu-152	Eu-152	7.210E-01	3.590E-04	3.411E-04	3.079E-04	2.151E-04	4.514E-05	2.144E-06	7.646E-11	4.474E-26	
Eu-152	Eu-152	2.790E-01	1.389E-04	1.320E-04	1.191E-04	8.324E-05	1.747E-05	8.295E-07	2.959E-11	1.731E-26	
Eu-152	ΣDOSE(j)		4.979E-04	4.730E-04	4.270E-04	2.984E-04	6.261E-05	2.973E-06	1.060E-10	6.205E-26	
Gd-152	Eu-152	2.790E-01	2.545E-16	4.193E-16	7.248E-16	1.578E-15	3.140E-15	3.531E-15	3.535E-15	3.967E-15	
Sm-148	Eu-152	2.790E-01	5.345E-30	5.078E-30	4.584E-30	3.203E-30	0.000E+00	0.000E+00	0.000E+00	4.642E-29	
Nd-144	Eu-152	2.790E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Eu-154	Eu-154	1.000E+00	7.231E-04	6.671E-04	5.677E-04	3.228E-04	2.759E-05	2.269E-07	2.235E-14	0.000E+00	
H-3	H-3	1.000E+00	1.501E-01	1.315E-01	1.009E-01	3.988E-02	7.003E-04	2.624E-07	8.011E-19	0.000E+00	
Ni-63	Ni-63	1.000E+00	8.645E-04	8.585E-04	8.467E-04	8.065E-04	6.526E-04	4.317E-04	1.077E-04	6.531E-06	
Sr-90	Sr-90	1.000E+00	8.360E-01	8.160E-01	7.774E-01	6.561E-01	3.133E-01	7.403E-02	5.805E-04	1.938E-10	

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

Summary : RESRAD Default

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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	4.049E+01	1.000E+02	3.000E+02	1.000E+03	
Co-60	Co-60	1.000E+00	1.000E+00	8.768E-01	6.740E-01	2.684E-01	4.869E-03	1.943E-06	7.338E-18	0.000E+00	
Cs-134	Cs-134	1.000E+00	1.000E+00	7.148E-01	3.653E-01	3.484E-02	1.249E-06	2.633E-15	1.822E-44	0.000E+00	
Cs-137	Cs-137	1.000E+00	1.000E+00	9.773E-01	9.334E-01	7.946E-01	3.943E-01	1.004E-01	1.012E-03	1.040E-10	
Eu-152	Eu-152	7.210E-01	7.210E-01	6.850E-01	6.183E-01	4.321E-01	9.067E-02	4.306E-03	1.536E-07	4.160E-23	
Eu-152	Eu-152	2.790E-01	2.790E-01	2.651E-01	2.393E-01	1.672E-01	3.509E-02	1.666E-03	5.942E-08	1.610E-23	
Eu-152	ΣS(j):		1.000E+00	9.501E-01	8.576E-01	5.993E-01	1.258E-01	5.972E-03	2.130E-07	5.769E-23	
Gd-152	Eu-152	2.790E-01	0.000E+00	1.746E-15	4.979E-15	1.401E-14	3.055E-14	3.469E-14	3.474E-14	3.418E-14	
Sm-148	Eu-152	2.790E-01	0.000E+00	8.716E-32	7.585E-31	7.526E-30	8.103E-29	2.785E-28	9.648E-28	3.318E-27	
Nd-144	Eu-152	2.790E-01	0.000E+00	0.000E+00	0.000E+00	8.408E-45	3.798E-43	3.572E-42	4.071E-41	4.746E-40	
Eu-154	Eu-154	1.000E+00	1.000E+00	9.225E-01	7.851E-01	4.463E-01	3.815E-02	3.138E-04	3.090E-11	9.262E-36	
H-3	H-3	1.000E+00	1.000E+00	8.758E-01	6.718E-01	2.656E-01	4.664E-03	1.747E-06	5.335E-18	0.000E+00	
Ni-63	Ni-63	1.000E+00	1.000E+00	9.931E-01	9.794E-01	9.329E-01	7.549E-01	4.994E-01	1.245E-01	9.646E-04	
Sr-90	Sr-90	1.000E+00	1.000E+00	9.760E-01	9.299E-01	7.847E-01	3.747E-01	8.855E-02	6.943E-04	2.964E-11	

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

RESCALC.EXE execution time = 2274.87 seconds

Total water/soil iteration failures = 5.510E+02.