Summary : MTW Pond C Farmer Alternative - Deterministic Run - NO COVER
File : C:\RESRAD_FAMILY\RESRAD\6.5\USERFILES\MTW\MTW_POND_C_FARMER-DET_NC.RAD

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Dose Conversion Factor (and Related) Parameter Summary
Dose Library: FGR 12 & FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
A-1	DCF's for external ground radiation, (mrem/yr)/(pCi/g)			
A-1	Ac-227 (Source: FGR 12)	4.951E-04	4.951E-04	DCF1(1)
A-1	Ac-228 (Source: FGR 12)	5.978E+00	5.978E+00	DCF1(2)
A-1	At-218 (Source: FGR 12)	5.847E-03	5.847E-03	DCF1(3)
A-1	Bi-210 (Source: FGR 12)	3.606E-03	3.606E-03	DCF1(4)
A-1	Bi-211 (Source: FGR 12)	2.559E-01	2.559E-01	DCF1(5)
A-1	Bi-212 (Source: FGR 12)	1.171E+00	1.171E+00	DCF1(6)
A-1	Bi-214 (Source: FGR 12)	9.808E+00	9.808E+00	DCF1(7)
A-1	Fr-223 (Source: FGR 12)	1.980E-01	1.980E-01	DCF1(8)
A-1	Pa-231 (Source: FGR 12)	1.906E-01	1.906E-01	DCF1(9)
A-1	Pa-234 (Source: FGR 12)	1.155E+01	1.155E+01	DCF1(10)
A-1	Pa-234m (Source: FGR 12)	8.967E-02	8.967E-02	DCF1(11)
A-1	Pb-210 (Source: FGR 12)	2.447E-03	2.447E-03	DCF1(12)
A-1	Pb-211 (Source: FGR 12)	3.064E-01	3.064E-01	DCF1(13)
A-1	Pb-212 (Source: FGR 12)	7.043E-01	7.043E-01	DCF1(14)
A-1	Pb-214 (Source: FGR 12)	1.341E+00	1.341E+00	DCF1(15)
A-1	Po-210 (Source: FGR 12)	5.231E-05	5.231E-05	DCF1(16)
A-1	Po-211 (Source: FGR 12)	4.764E-02	4.764E-02	DCF1(17)
A-1	Po-212 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1(18)
A-1	Po-214 (Source: FGR 12)	5.138E-04	5.138E-04	DCF1(19)
A-1	Po-215 (Source: FGR 12)	1.016E-03	1.016E-03	DCF1(20)
A-1	Po-216 (Source: FGR 12)	1.042E-04	1.042E-04	DCF1(21)
A-1	Po-218 (Source: FGR 12)	5.642E-05	5.642E-05	DCF1(22)
A-1	Ra-223 (Source: FGR 12)	6.034E-01	6.034E-01	DCF1(23)
A-1	Ra-224 (Source: FGR 12)	5.119E-02	5.119E-02	DCF1(24)
A-1	Ra-226 (Source: FGR 12)	3.176E-02	3.176E-02	DCF1(25)
A-1	Ra-228 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1(26)
A-1	Rn-219 (Source: FGR 12)	3.083E-01	3.083E-01	DCF1(27)
A-1	Rn-220 (Source: FGR 12)	2.298E-03	2.298E-03	DCF1(28)
A-1	Rn-222 (Source: FGR 12)	2.354E-03	2.354E-03	DCF1(29)
A-1	Th-227 (Source: FGR 12)	5.212E-01	5.212E-01	DCF1(30)
A-1	Th-228 (Source: FGR 12)	7.940E-03	7.940E-03	DCF1(31)
A-1	Th-230 (Source: FGR 12)	1.209E-03	1.209E-03	DCF1(32)
A-1	Th-231 (Source: FGR 12)	3.643E-02	3.643E-02	DCF1(33)
A-1	Th-232 (Source: FGR 12)	5.212E-04	5.212E-04	DCF1(34)
A-1	Th-234 (Source: FGR 12)	2.410E-02	2.410E-02	DCF1(35)
A-1	Tl-207 (Source: FGR 12)	1.980E-02	1.980E-02	DCF1(36)
A-1	Tl-208 (Source: FGR 12)	2.298E+01	2.298E+01	DCF1(37)
A-1	Tl-210 (Source: no data)	0.000E+00	-2.000E+00	DCF1(38)
A-1	U-234 (Source: FGR 12)	4.017E-04	4.017E-04	DCF1(39)
A-1	U-235 (Source: FGR 12)	7.211E-01	7.211E-01	DCF1(40)
A-1	U-236 (Source: FGR 12)	2.148E-04	2.148E-04	DCF1(41)
A-1	U-238 (Source: FGR 12)	1.031E-04	1.031E-04	DCF1(42)
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	Ac-227+D	6.724E+00	6.700E+00	DCF2(1)
B-1	Pa-231	1.280E+00	1.280E+00	DCF2(2)
B-1	Pb-210+D	2.320E-02	1.360E-02	DCF2(3)
B-1	Ra-226+D	8.594E-03	8.580E-03	DCF2(4)
B-1	Ra-228+D	5.078E-03	4.770E-03	DCF2(5)

Dose Conversion Factor (and Related) Parameter Summary (continued)
Dose Library: FGR 12 & FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
B-1	Th-228+D	3.454E-01	3.420E-01	DCF2(6)
B-1	Th-230	3.260E-01	3.260E-01	DCF2(7)
B-1	Th-232	1.640E+00	1.640E+00	DCF2(8)
B-1	U-234	1.320E-01	1.320E-01	DCF2(9)
B-1	U-235+D	1.230E-01	1.230E-01	DCF2(10)
B-1	U-236	1.250E-01	1.250E-01	DCF2(11)
B-1	U-238	1.180E-01	1.180E-01	DCF2(12)
B-1	U-238+D	1.180E-01	1.180E-01	DCF2(13)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	Ac-227+D	1.480E-02	1.410E-02	DCF3(1)
D-1	Pa-231	1.060E-02	1.060E-02	DCF3(2)
D-1	Pb-210+D	7.276E-03	5.370E-03	DCF3(3)
D-1	Ra-226+D	1.321E-03	1.320E-03	DCF3(4)
D-1	Ra-228+D	1.442E-03	1.440E-03	DCF3(5)
D-1	Th-228+D	8.086E-04	3.960E-04	DCF3(6)
D-1	Th-230	5.480E-04	5.480E-04	DCF3(7)
D-1	Th-232	2.730E-03	2.730E-03	DCF3(8)
D-1	U-234	2.830E-04	2.830E-04	DCF3(9)
D-1	U-235+D	2.673E-04	2.660E-04	DCF3(10)
D-1	U-236	2.690E-04	2.690E-04	DCF3(11)
D-1	U-238	2.550E-04	2.550E-04	DCF3(12)
D-1	U-238+D	2.687E-04	2.550E-04	DCF3(13)
D-34	Food transfer factors:			
D-34	Ac-227+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(1,1)
D-34	Ac-227+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF(1,2)
D-34	Ac-227+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-05	2.000E-05	RTF(1,3)
D-34				
D-34	Pa-231 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF(2,1)
D-34	Pa-231 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF(2,2)
D-34	Pa-231 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(2,3)
D-34				
D-34	Pb-210+D , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF(3,1)
D-34	Pb-210+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-04	8.000E-04	RTF(3,2)
D-34	Pb-210+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF(3,3)
D-34				
D-34	Ra-226+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF(4,1)
D-34	Ra-226+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF(4,2)
D-34	Ra-226+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF(4,3)
D-34				
D-34	Ra-228+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF(5,1)
D-34	Ra-228+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF(5,2)
D-34	Ra-228+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF(5,3)
D-34				
D-34	Th-228+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(6,1)
D-34	Th-228+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF(6,2)
D-34	Th-228+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(6,3)
D-34				

Dose Conversion Factor (and Related) Parameter Summary (continued)
Dose Library: FGR 12 & FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-34	Th-230 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(7,1)
D-34	Th-230 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF(7,2)
D-34	Th-230 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(7,3)
D-34				
D-34	Th-232 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(8,1)
D-34	Th-232 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF(8,2)
D-34	Th-232 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(8,3)
D-34				
D-34	U-234 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(9,1)
D-34	U-234 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(9,2)
D-34	U-234 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(9,3)
D-34				
D-34	U-235+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(10,1)
D-34	U-235+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(10,2)
D-34	U-235+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(10,3)
D-34				
D-34	U-236 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(11,1)
D-34	U-236 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(11,2)
D-34	U-236 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(11,3)
D-34				
D-34	U-238 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(12,1)
D-34	U-238 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(12,2)
D-34	U-238 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(12,3)
D-34				
D-34	U-238+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(13,1)
D-34	U-238+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(13,2)
D-34	U-238+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(13,3)
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Ac-227+D , fish	1.500E+01	1.500E+01	BIOFAC(1,1)
D-5	Ac-227+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(1,2)
D-5				
D-5	Pa-231 , fish	1.000E+01	1.000E+01	BIOFAC(2,1)
D-5	Pa-231 , crustacea and mollusks	1.100E+02	1.100E+02	BIOFAC(2,2)
D-5				
D-5	Pb-210+D , fish	3.000E+02	3.000E+02	BIOFAC(3,1)
D-5	Pb-210+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC(3,2)
D-5				
D-5	Ra-226+D , fish	5.000E+01	5.000E+01	BIOFAC(4,1)
D-5	Ra-226+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC(4,2)
D-5				
D-5	Ra-228+D , fish	5.000E+01	5.000E+01	BIOFAC(5,1)
D-5	Ra-228+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC(5,2)
D-5				
D-5	Th-228+D , fish	1.000E+02	1.000E+02	BIOFAC(6,1)
D-5	Th-228+D , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC(6,2)
D-5				
D-5	Th-230 , fish	1.000E+02	1.000E+02	BIOFAC(7,1)
D-5	Th-230 , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC(7,2)
D-5				

Dose Conversion Factor (and Related) Parameter Summary (continued)
Dose Library: FGR 12 & FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-5	Th-232 , fish	1.000E+02	1.000E+02	BIOFAC(8,1)
D-5	Th-232 , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC(8,2)
D-5				
D-5	U-234 , fish	1.000E+01	1.000E+01	BIOFAC(9,1)
D-5	U-234 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(9,2)
D-5				
D-5	U-235+D , fish	1.000E+01	1.000E+01	BIOFAC(10,1)
D-5	U-235+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(10,2)
D-5				
D-5	U-236 , fish	1.000E+01	1.000E+01	BIOFAC(11,1)
D-5	U-236 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(11,2)
D-5				
D-5	U-238 , fish	1.000E+01	1.000E+01	BIOFAC(12,1)
D-5	U-238 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(12,2)
D-5				
D-5	U-238+D , fish	1.000E+01	1.000E+01	BIOFAC(13,1)
D-5	U-238+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(13,2)

#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.

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)	4.000E+03	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.724E+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)	9.400E+01	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): Pa-231	1.300E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Ra-226	3.100E-01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Th-228	5.000E-02	0.000E+00	---	S1(6)
R012	Initial principal radionuclide (pCi/g): Th-230	1.560E+00	0.000E+00	---	S1(7)
R012	Initial principal radionuclide (pCi/g): Th-232	5.000E-02	0.000E+00	---	S1(8)
R012	Initial principal radionuclide (pCi/g): U-234	1.368E+02	0.000E+00	---	S1(9)
R012	Initial principal radionuclide (pCi/g): U-235	7.310E+00	0.000E+00	---	S1(10)
R012	Initial principal radionuclide (pCi/g): U-236	3.270E+00	0.000E+00	---	S1(11)
R012	Initial principal radionuclide (pCi/g): U-238	1.416E+02	0.000E+00	---	S1(12)
R012	Concentration in groundwater (pCi/L): Pa-231	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Ra-226	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Th-228	not used	0.000E+00	---	W1(6)
R012	Concentration in groundwater (pCi/L): Th-230	not used	0.000E+00	---	W1(7)
R012	Concentration in groundwater (pCi/L): Th-232	not used	0.000E+00	---	W1(8)
R012	Concentration in groundwater (pCi/L): U-234	not used	0.000E+00	---	W1(9)
R012	Concentration in groundwater (pCi/L): U-235	not used	0.000E+00	---	W1(10)
R012	Concentration in groundwater (pCi/L): U-236	not used	0.000E+00	---	W1(11)
R012	Concentration in groundwater (pCi/L): U-238	not used	0.000E+00	---	W1(12)
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)	1.600E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	3.490E-05	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.100E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.600E+00	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	1.350E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.300E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	6.200E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	1.250E+00	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	0.000E+00	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R013	Runoff coefficient	4.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	2.778E+05	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)	1.510E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	4.300E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	3.800E-01	2.000E-01	---	EPSZ
R014	Saturated zone field capacity	2.000E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	2.500E+03	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	4.800E-03	2.000E-02	---	HGWT
R014	Saturated zone b parameter	9.700E-01	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	1.000E-03	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	1.050E+02	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	2.500E+03	2.500E+02	---	UW
R015	Number of unsaturated zone strata	5	1	---	NS
R015	Unsat. zone 1, thickness (m)	6.860E+00	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.695E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	3.600E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.890E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	9.870E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.262E+02	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	1.710E+00	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.563E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	4.090E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	3.500E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.000E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	1.350E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.025E+03	1.000E+01	---	HCUZ(2)
R015	Unsat. zone 3, thickness (m)	1.710E+00	0.000E+00	---	H(3)
R015	Unsat. zone 3, soil density (g/cm**3)	1.510E+00	1.500E+00	---	DENSUZ(3)
R015	Unsat. zone 3, total porosity	4.300E-01	4.000E-01	---	TPUZ(3)
R015	Unsat. zone 3, effective porosity	3.830E-01	2.000E-01	---	EPUZ(3)
R015	Unsat. zone 3, field capacity	2.000E-01	2.000E-01	---	FCUZ(3)
R015	Unsat. zone 3, soil-specific b parameter	9.700E-01	5.300E+00	---	BUZ(3)
R015	Unsat. zone 3, hydraulic conductivity (m/yr)	2.495E+03	1.000E+01	---	HCUZ(3)
R015	Unsat. zone 4, thickness (m)	4.000E+00	0.000E+00	---	H(4)
R015	Unsat. zone 4, soil density (g/cm**3)	1.562E+00	1.500E+00	---	DENSUZ(4)
R015	Unsat. zone 4, total porosity	3.890E-01	4.000E-01	---	TPUZ(4)
R015	Unsat. zone 4, effective porosity	3.180E-01	2.000E-01	---	EPUZ(4)
R015	Unsat. zone 4, field capacity	2.000E-01	2.000E-01	---	FCUZ(4)
R015	Unsat. zone 4, soil-specific b parameter	1.350E+00	5.300E+00	---	BUZ(4)
R015	Unsat. zone 4, hydraulic conductivity (m/yr)	1.021E+03	1.000E+01	---	HCUZ(4)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R015	Unsat. zone 5, thickness (m)	1.140E+00	0.000E+00	---	H(5)
R015	Unsat. zone 5, soil density (g/cm**3)	1.510E+00	1.500E+00	---	DENSUZ(5)
R015	Unsat. zone 5, total porosity	4.300E-01	4.000E-01	---	TPUZ(5)
R015	Unsat. zone 5, effective porosity	3.830E-01	2.000E-01	---	EPUZ(5)
R015	Unsat. zone 5, field capacity	2.000E-01	2.000E-01	---	FCUZ(5)
R015	Unsat. zone 5, soil-specific b parameter	9.700E-01	5.300E+00	---	BUZ(5)
R015	Unsat. zone 5, hydraulic conductivity (m/yr)	2.494E+03	1.000E+01	---	HCUZ(5)
R016	Distribution coefficients for Pa-231				
R016	Contaminated zone (cm**3/g)	3.743E+02	5.000E+01	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	3.707E+02	5.000E+01	---	DCNUCU(2,1)
R016	Unsaturated zone 2 (cm**3/g)	3.751E+02	5.000E+01	---	DCNUCU(2,2)
R016	Unsaturated zone 3 (cm**3/g)	3.753E+02	5.000E+01	---	DCNUCU(2,3)
R016	Unsaturated zone 4 (cm**3/g)	3.782E+02	5.000E+01	---	DCNUCU(2,4)
R016	Unsaturated zone 5 (cm**3/g)	3.756E+02	5.000E+01	---	DCNUCU(2,5)
R016	Saturated zone (cm**3/g)	3.784E+02	5.000E+01	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.746E-04	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)
R016	Distribution coefficients for Ra-226				
R016	Contaminated zone (cm**3/g)	3.501E+03	7.000E+01	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	3.507E+03	7.000E+01	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	3.506E+03	7.000E+01	---	DCNUCU(4,2)
R016	Unsaturated zone 3 (cm**3/g)	3.523E+03	7.000E+01	---	DCNUCU(4,3)
R016	Unsaturated zone 4 (cm**3/g)	3.485E+03	7.000E+01	---	DCNUCU(4,4)
R016	Unsaturated zone 5 (cm**3/g)	3.496E+03	7.000E+01	---	DCNUCU(4,5)
R016	Saturated zone (cm**3/g)	3.529E+03	7.000E+01	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.868E-05	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Th-228				
R016	Contaminated zone (cm**3/g)	5.883E+03	6.000E+04	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	5.736E+03	6.000E+04	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	5.825E+03	6.000E+04	---	DCNUCU(6,2)
R016	Unsaturated zone 3 (cm**3/g)	5.786E+03	6.000E+04	---	DCNUCU(6,3)
R016	Unsaturated zone 4 (cm**3/g)	5.775E+03	6.000E+04	---	DCNUCU(6,4)
R016	Unsaturated zone 5 (cm**3/g)	5.784E+03	6.000E+04	---	DCNUCU(6,5)
R016	Saturated zone (cm**3/g)	5.828E+03	6.000E+04	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.111E-05	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R016	Distribution coefficients for Th-230				
R016	Contaminated zone (cm**3/g)	5.771E+03	6.000E+04	---	DCNUCC(7)
R016	Unsaturated zone 1 (cm**3/g)	5.843E+03	6.000E+04	---	DCNUCU(7,1)
R016	Unsaturated zone 2 (cm**3/g)	5.843E+03	6.000E+04	---	DCNUCU(7,2)
R016	Unsaturated zone 3 (cm**3/g)	5.882E+03	6.000E+04	---	DCNUCU(7,3)
R016	Unsaturated zone 4 (cm**3/g)	5.779E+03	6.000E+04	---	DCNUCU(7,4)
R016	Unsaturated zone 5 (cm**3/g)	5.860E+03	6.000E+04	---	DCNUCU(7,5)
R016	Saturated zone (cm**3/g)	5.849E+03	6.000E+04	---	DCNUCS(7)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.133E-05	ALEACH(7)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(7)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Th-232				
R016	Contaminated zone (cm**3/g)	5.771E+03	6.000E+04	---	DCNUCC(8)
R016	Unsaturated zone 1 (cm**3/g)	5.809E+03	6.000E+04	---	DCNUCU(8,1)
R016	Unsaturated zone 2 (cm**3/g)	5.744E+03	6.000E+04	---	DCNUCU(8,2)
R016	Unsaturated zone 3 (cm**3/g)	5.769E+03	6.000E+04	---	DCNUCU(8,3)
R016	Unsaturated zone 4 (cm**3/g)	5.779E+03	6.000E+04	---	DCNUCU(8,4)
R016	Unsaturated zone 5 (cm**3/g)	5.823E+03	6.000E+04	---	DCNUCU(8,5)
R016	Saturated zone (cm**3/g)	5.864E+03	6.000E+04	---	DCNUCS(8)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.133E-05	ALEACH(8)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(8)
R016	Distribution coefficients for U-234				
R016	Contaminated zone (cm**3/g)	1.235E+02	5.000E+01	---	DCNUCC(9)
R016	Unsaturated zone 1 (cm**3/g)	1.261E+02	5.000E+01	---	DCNUCU(9,1)
R016	Unsaturated zone 2 (cm**3/g)	1.242E+02	5.000E+01	---	DCNUCU(9,2)
R016	Unsaturated zone 3 (cm**3/g)	1.242E+02	5.000E+01	---	DCNUCU(9,3)
R016	Unsaturated zone 4 (cm**3/g)	1.247E+02	5.000E+01	---	DCNUCU(9,4)
R016	Unsaturated zone 5 (cm**3/g)	1.257E+02	5.000E+01	---	DCNUCU(9,5)
R016	Saturated zone (cm**3/g)	1.264E+02	5.000E+01	---	DCNUCS(9)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.287E-04	ALEACH(9)
R016	Solubility constant	2.940E-06	0.000E+00	Sol. Kd =-1.575E-01 not used	SOLUBK(9)
R016	Distribution coefficients for U-235				
R016	Contaminated zone (cm**3/g)	1.239E+02	5.000E+01	---	DCNUCC(10)
R016	Unsaturated zone 1 (cm**3/g)	1.258E+02	5.000E+01	---	DCNUCU(10,1)
R016	Unsaturated zone 2 (cm**3/g)	1.233E+02	5.000E+01	---	DCNUCU(10,2)
R016	Unsaturated zone 3 (cm**3/g)	1.259E+02	5.000E+01	---	DCNUCU(10,3)
R016	Unsaturated zone 4 (cm**3/g)	1.249E+02	5.000E+01	---	DCNUCU(10,4)
R016	Unsaturated zone 5 (cm**3/g)	1.247E+02	5.000E+01	---	DCNUCU(10,5)
R016	Saturated zone (cm**3/g)	1.244E+02	5.000E+01	---	DCNUCS(10)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.270E-04	ALEACH(10)
R016	Solubility constant	2.940E-06	0.000E+00	Sol. Kd = 4.706E+00 not used	SOLUBK(10)
R016	Distribution coefficients for U-236				
R016	Contaminated zone (cm**3/g)	1.239E+02	5.000E+01	---	DCNUCC(11)
R016	Unsaturated zone 1 (cm**3/g)	1.240E+02	5.000E+01	---	DCNUCU(11,1)
R016	Unsaturated zone 2 (cm**3/g)	1.238E+02	5.000E+01	---	DCNUCU(11,2)
R016	Unsaturated zone 3 (cm**3/g)	1.239E+02	5.000E+01	---	DCNUCU(11,3)
R016	Unsaturated zone 4 (cm**3/g)	1.240E+02	5.000E+01	---	DCNUCU(11,4)
R016	Unsaturated zone 5 (cm**3/g)	1.259E+02	5.000E+01	---	DCNUCU(11,5)
R016	Saturated zone (cm**3/g)	1.258E+02	5.000E+01	---	DCNUCS(11)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.270E-04	ALEACH(11)
R016	Solubility constant	2.940E-06	0.000E+00	Sol. Kd =-1.165E-01 not used	SOLUBK(11)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for U-238				
R016	Contaminated zone (cm**3/g)	1.240E+02	5.000E+01	6.017E+02	DCNUCC(12)
R016	Unsaturated zone 1 (cm**3/g)	1.238E+02	5.000E+01	6.017E+02	DCNUCU(12,1)
R016	Unsaturated zone 2 (cm**3/g)	1.245E+02	5.000E+01	6.017E+02	DCNUCU(12,2)
R016	Unsaturated zone 3 (cm**3/g)	1.234E+02	5.000E+01	6.017E+02	DCNUCU(12,3)
R016	Unsaturated zone 4 (cm**3/g)	1.240E+02	5.000E+01	6.017E+02	DCNUCU(12,4)
R016	Unsaturated zone 5 (cm**3/g)	1.262E+02	5.000E+01	6.017E+02	DCNUCU(12,5)
R016	Saturated zone (cm**3/g)	1.243E+02	5.000E+01	6.017E+02	DCNUCS(12)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.086E-04	ALEACH(12)
R016	Solubility constant	2.940E-06	0.000E+00	Sol. Kd = 6.017E+02 used	SOLUBK(12)
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	8.244E+02	2.000E+01	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	8.184E+02	2.000E+01	---	DCNUCU(1,1)
R016	Unsaturated zone 2 (cm**3/g)	8.284E+02	2.000E+01	---	DCNUCU(1,2)
R016	Unsaturated zone 3 (cm**3/g)	8.251E+02	2.000E+01	---	DCNUCU(1,3)
R016	Unsaturated zone 4 (cm**3/g)	8.097E+02	2.000E+01	---	DCNUCU(1,4)
R016	Unsaturated zone 5 (cm**3/g)	8.147E+02	2.000E+01	---	DCNUCU(1,5)
R016	Saturated zone (cm**3/g)	8.104E+02	2.000E+01	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.930E-05	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for daughter Pb-210				
R016	Contaminated zone (cm**3/g)	2.374E+03	1.000E+02	---	DCNUCC(3)
R016	Unsaturated zone 1 (cm**3/g)	2.347E+03	1.000E+02	---	DCNUCU(3,1)
R016	Unsaturated zone 2 (cm**3/g)	2.362E+03	1.000E+02	---	DCNUCU(3,2)
R016	Unsaturated zone 3 (cm**3/g)	2.357E+03	1.000E+02	---	DCNUCU(3,3)
R016	Unsaturated zone 4 (cm**3/g)	2.352E+03	1.000E+02	---	DCNUCU(3,4)
R016	Unsaturated zone 5 (cm**3/g)	2.380E+03	1.000E+02	---	DCNUCU(3,5)
R016	Saturated zone (cm**3/g)	2.360E+03	1.000E+02	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.754E-05	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for daughter Ra-228				
R016	Contaminated zone (cm**3/g)	3.490E+03	7.000E+01	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	3.507E+03	7.000E+01	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	3.522E+03	7.000E+01	---	DCNUCU(5,2)
R016	Unsaturated zone 3 (cm**3/g)	3.513E+03	7.000E+01	---	DCNUCU(5,3)
R016	Unsaturated zone 4 (cm**3/g)	3.505E+03	7.000E+01	---	DCNUCU(5,4)
R016	Unsaturated zone 5 (cm**3/g)	3.484E+03	7.000E+01	---	DCNUCU(5,5)
R016	Saturated zone (cm**3/g)	3.521E+03	7.000E+01	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.874E-05	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
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	5.470E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	2.690E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	5.000E-01	5.000E-01	---	FIND

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Fraction of time spent outdoors (on site)	2.500E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	-1.000E+00	1.000E+00	-1 shows non-circular AREA.	FS
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	4.417E+00	5.000E+01	---	RAD_SHAPE(1)
R017	Outer annular radius (m), ring 2:	8.833E+00	7.071E+01	---	RAD_SHAPE(2)
R017	Outer annular radius (m), ring 3:	1.325E+01	0.000E+00	---	RAD_SHAPE(3)
R017	Outer annular radius (m), ring 4:	1.767E+01	0.000E+00	---	RAD_SHAPE(4)
R017	Outer annular radius (m), ring 5:	2.208E+01	0.000E+00	---	RAD_SHAPE(5)
R017	Outer annular radius (m), ring 6:	2.650E+01	0.000E+00	---	RAD_SHAPE(6)
R017	Outer annular radius (m), ring 7:	3.092E+01	0.000E+00	---	RAD_SHAPE(7)
R017	Outer annular radius (m), ring 8:	3.533E+01	0.000E+00	---	RAD_SHAPE(8)
R017	Outer annular radius (m), ring 9:	3.975E+01	0.000E+00	---	RAD_SHAPE(9)
R017	Outer annular radius (m), ring 10:	4.417E+01	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	4.858E+01	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	5.300E+01	0.000E+00	---	RAD_SHAPE(12)
R017	Fractions of annular areas within AREA:				
R017	Ring 1	1.000E+00	1.000E+00	---	FRACA(1)
R017	Ring 2	1.000E+00	2.732E-01	---	FRACA(2)
R017	Ring 3	1.000E+00	0.000E+00	---	FRACA(3)
R017	Ring 4	1.000E+00	0.000E+00	---	FRACA(4)
R017	Ring 5	9.800E-01	0.000E+00	---	FRACA(5)
R017	Ring 6	6.900E-01	0.000E+00	---	FRACA(6)
R017	Ring 7	5.400E-01	0.000E+00	---	FRACA(7)
R017	Ring 8	4.400E-01	0.000E+00	---	FRACA(8)
R017	Ring 9	3.900E-01	0.000E+00	---	FRACA(9)
R017	Ring 10	3.400E-01	0.000E+00	---	FRACA(10)
R017	Ring 11	2.700E-01	0.000E+00	---	FRACA(11)
R017	Ring 12	4.600E-02	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)	2.100E+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)	6.500E+01	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	2.100E+01	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	9.000E-01	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	4.785E+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	3.900E-01	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)	2.710E+01	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	6.320E+01	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	5.060E+01	5.000E+01	---	LWI5

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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
R019	Mass loading for foliar deposition (g/m**3)	4.000E-04	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	2.310E-01	1.500E-01	---	DM
R019	Depth of roots (m)	9.000E-01	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)	7.000E-01	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	2.889E+00	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	1.887E+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)
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	3.500E-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	2.000E+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	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

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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	1024	---	---	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	active
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	suppressed

Summary : MTW Pond C Farmer Alternative - Deterministic Run - NO COVER
File : C:\RESRAD_FAMILY\RESRAD\6.5\USERFILES\MTW\MTW_POND_C_FARMER-DET_NC.RAD

Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
Area:	4000.00 square meters	Pa-231	1.300E-01
Thickness:	2.72 meters	Ra-226	3.100E-01
Cover Depth:	0.00 meters	Th-228	5.000E-02
		Th-230	1.560E+00
		Th-232	5.000E-02
		U-234	1.368E+02
		U-235	7.310E+00
		U-236	3.270E+00
		U-238	1.416E+02

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):	5.348E+01	5.362E+01	5.391E+01	5.485E+01	5.640E+01	5.789E+01	5.864E+01	6.258E+01
M(t):	2.139E+00	2.145E+00	2.156E+00	2.194E+00	2.256E+00	2.315E+00	2.346E+00	2.503E+00

Maximum TDOSE(t): 6.258E+01 mrem/yr at t = 1.000E+03 years

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.
Pa-231	1.025E-02	0.0002	2.227E-03	0.0000	0.000E+00	0.0000	1.845E+00	0.0345	3.461E-01	0.0065	1.925E-03	0.0000	3.855E-02	0.0007
Ra-226	1.223E+00	0.0229	3.429E-05	0.0000	0.000E+00	0.0000	2.232E+00	0.0417	4.407E-02	0.0008	2.927E-01	0.0055	1.216E-02	0.0002
Th-228	1.513E-01	0.0028	1.791E-04	0.0000	0.000E+00	0.0000	4.531E-03	0.0001	1.163E-04	0.0000	2.228E-05	0.0000	9.284E-04	0.0000
Th-230	2.013E-03	0.0000	6.287E-03	0.0001	0.000E+00	0.0000	1.165E-01	0.0022	2.967E-03	0.0001	8.241E-04	0.0000	2.342E-02	0.0004
Th-232	7.283E-03	0.0001	1.015E-03	0.0000	0.000E+00	0.0000	3.937E-02	0.0007	8.005E-04	0.0000	2.503E-03	0.0000	3.858E-03	0.0001
U-234	1.997E-02	0.0004	2.232E-01	0.0042	0.000E+00	0.0000	1.290E+01	0.2411	4.860E-01	0.0091	3.565E+00	0.0667	1.060E+00	0.0198
U-235	1.985E+00	0.0371	1.111E-02	0.0002	0.000E+00	0.0000	6.519E-01	0.0122	2.471E-02	0.0005	1.799E-01	0.0034	5.351E-02	0.0010
U-236	2.579E-04	0.0000	5.052E-03	0.0001	0.000E+00	0.0000	2.929E-01	0.0055	1.104E-02	0.0002	8.098E-02	0.0015	2.407E-02	0.0005
U-238	7.596E+00	0.1420	2.066E-01	0.0039	0.000E+00	0.0000	1.267E+01	0.2369	4.776E-01	0.0089	3.503E+00	0.0655	1.041E+00	0.0195
Total	1.100E+01	0.2056	4.557E-01	0.0085	0.000E+00	0.0000	3.075E+01	0.5750	1.393E+00	0.0261	7.627E+00	0.1426	2.258E+00	0.0422

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.
Pa-231	0.000E+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	2.244E+00	0.0420
Ra-226	0.000E+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	3.804E+00	0.0711
Th-228	0.000E+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	1.570E-01	0.0029
Th-230	0.000E+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	1.520E-01	0.0028
Th-232	0.000E+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	5.483E-02	0.0010
U-234	0.000E+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	1.825E+01	0.3412
U-235	0.000E+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	2.906E+00	0.0543
U-236	0.000E+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	4.143E-01	0.0077
U-238	0.000E+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	2.550E+01	0.4768
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	5.348E+01	1.0000

*Sum of all water independent and dependent pathways.

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.
Pa-231	1.312E-02	0.0002	2.560E-03	0.0000	0.000E+00	0.0000	1.865E+00	0.0348	3.462E-01	0.0065	2.109E-03	0.0000	4.016E-02	0.0007
Ra-226	1.222E+00	0.0228	3.696E-05	0.0000	0.000E+00	0.0000	2.323E+00	0.0433	4.686E-02	0.0009	2.982E-01	0.0056	1.401E-02	0.0003
Th-228	1.053E-01	0.0020	1.246E-04	0.0000	0.000E+00	0.0000	3.154E-03	0.0001	8.092E-05	0.0000	1.551E-05	0.0000	6.462E-04	0.0000
Th-230	4.678E-03	0.0001	6.287E-03	0.0001	0.000E+00	0.0000	1.214E-01	0.0023	3.065E-03	0.0001	1.459E-03	0.0000	2.344E-02	0.0004
Th-232	2.455E-02	0.0005	1.023E-03	0.0000	0.000E+00	0.0000	8.064E-02	0.0015	1.592E-03	0.0000	7.860E-03	0.0001	4.106E-03	0.0001
U-234	1.996E-02	0.0004	2.231E-01	0.0042	0.000E+00	0.0000	1.289E+01	0.2404	4.858E-01	0.0091	3.563E+00	0.0665	1.059E+00	0.0198
U-235	1.984E+00	0.0370	1.111E-02	0.0002	0.000E+00	0.0000	6.537E-01	0.0122	2.510E-02	0.0005	1.798E-01	0.0034	5.353E-02	0.0010
U-236	2.578E-04	0.0000	5.049E-03	0.0001	0.000E+00	0.0000	2.928E-01	0.0055	1.103E-02	0.0002	8.094E-02	0.0015	2.406E-02	0.0004
U-238	7.596E+00	0.1417	2.066E-01	0.0039	0.000E+00	0.0000	1.267E+01	0.2363	4.775E-01	0.0089	3.503E+00	0.0653	1.041E+00	0.0194
Total	1.097E+01	0.2046	4.558E-01	0.0085	0.000E+00	0.0000	3.090E+01	0.5763	1.397E+00	0.0261	7.636E+00	0.1424	2.260E+00	0.0422

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.
Pa-231	0.000E+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	2.269E+00	0.0423
Ra-226	0.000E+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	3.904E+00	0.0728
Th-228	0.000E+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	1.093E-01	0.0020
Th-230	0.000E+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	1.604E-01	0.0030
Th-232	0.000E+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	1.198E-01	0.0022
U-234	0.000E+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	1.824E+01	0.3402
U-235	0.000E+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	2.907E+00	0.0542
U-236	0.000E+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	4.141E-01	0.0077
U-238	0.000E+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	2.549E+01	0.4755
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	5.362E+01	1.0000

*Sum of all water independent and dependent pathways.

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.
Pa-231	1.858E-02	0.0003	3.194E-03	0.0001	0.000E+00	0.0000	1.902E+00	0.0353	3.462E-01	0.0064	2.456E-03	0.0000	4.324E-02	0.0008
Ra-226	1.221E+00	0.0227	4.203E-05	0.0000	0.000E+00	0.0000	2.493E+00	0.0462	5.202E-02	0.0010	3.082E-01	0.0057	1.755E-02	0.0003
Th-228	5.101E-02	0.0009	6.039E-05	0.0000	0.000E+00	0.0000	1.528E-03	0.0000	3.921E-05	0.0000	7.514E-06	0.0000	3.131E-04	0.0000
Th-230	1.000E-02	0.0002	6.287E-03	0.0001	0.000E+00	0.0000	1.319E-01	0.0024	3.280E-03	0.0001	2.781E-03	0.0001	2.351E-02	0.0004
Th-232	6.470E-02	0.0012	1.048E-03	0.0000	0.000E+00	0.0000	1.504E-01	0.0028	2.953E-03	0.0001	1.697E-02	0.0003	4.590E-03	0.0001
U-234	1.995E-02	0.0004	2.229E-01	0.0041	0.000E+00	0.0000	1.288E+01	0.2388	4.853E-01	0.0090	3.559E+00	0.0660	1.058E+00	0.0196
U-235	1.982E+00	0.0368	1.111E-02	0.0002	0.000E+00	0.0000	6.575E-01	0.0122	2.590E-02	0.0005	1.797E-01	0.0033	5.357E-02	0.0010
U-236	2.575E-04	0.0000	5.044E-03	0.0001	0.000E+00	0.0000	2.925E-01	0.0054	1.102E-02	0.0002	8.086E-02	0.0015	2.404E-02	0.0004
U-238	7.594E+00	0.1409	2.065E-01	0.0038	0.000E+00	0.0000	1.267E+01	0.2350	4.774E-01	0.0089	3.502E+00	0.0650	1.041E+00	0.0193
Total	1.096E+01	0.2033	4.562E-01	0.0085	0.000E+00	0.0000	3.117E+01	0.5782	1.404E+00	0.0260	7.652E+00	0.1419	2.266E+00	0.0420

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.
Pa-231	0.000E+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	2.315E+00	0.0429
Ra-226	0.000E+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	4.092E+00	0.0759
Th-228	0.000E+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	5.296E-02	0.0010
Th-230	0.000E+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	1.778E-01	0.0033
Th-232	0.000E+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	2.406E-01	0.0045
U-234	0.000E+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	1.822E+01	0.3380
U-235	0.000E+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	2.909E+00	0.0540
U-236	0.000E+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	4.137E-01	0.0077
U-238	0.000E+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	2.549E+01	0.4728
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	5.391E+01	1.0000

*Sum of all water independent and dependent pathways.

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.
Pa-231	3.516E-02	0.0006	5.118E-03	0.0001	0.000E+00	0.0000	2.014E+00	0.0367	3.460E-01	0.0063	3.506E-03	0.0001	5.258E-02	0.0010
Ra-226	1.218E+00	0.0222	5.746E-05	0.0000	0.000E+00	0.0000	3.011E+00	0.0549	6.769E-02	0.0012	3.385E-01	0.0062	2.830E-02	0.0005
Th-228	4.038E-03	0.0001	4.780E-06	0.0000	0.000E+00	0.0000	1.210E-04	0.0000	3.104E-06	0.0000	5.948E-07	0.0000	2.478E-05	0.0000
Th-230	2.861E-02	0.0005	6.286E-03	0.0001	0.000E+00	0.0000	1.741E-01	0.0032	4.198E-03	0.0001	7.723E-03	0.0001	2.386E-02	0.0004
Th-232	1.818E-01	0.0033	1.141E-03	0.0000	0.000E+00	0.0000	2.971E-01	0.0054	5.823E-03	0.0001	3.602E-02	0.0007	5.804E-03	0.0001
U-234	1.998E-02	0.0004	2.221E-01	0.0040	0.000E+00	0.0000	1.283E+01	0.2339	4.835E-01	0.0088	3.546E+00	0.0647	1.054E+00	0.0192
U-235	1.975E+00	0.0360	1.110E-02	0.0002	0.000E+00	0.0000	6.714E-01	0.0122	2.868E-02	0.0005	1.790E-01	0.0033	5.377E-02	0.0010
U-236	2.566E-04	0.0000	5.025E-03	0.0001	0.000E+00	0.0000	2.914E-01	0.0053	1.098E-02	0.0002	8.056E-02	0.0015	2.395E-02	0.0004
U-238	7.588E+00	0.1383	2.064E-01	0.0038	0.000E+00	0.0000	1.266E+01	0.2308	4.771E-01	0.0087	3.499E+00	0.0638	1.040E+00	0.0190
Total	1.105E+01	0.2015	4.572E-01	0.0083	0.000E+00	0.0000	3.194E+01	0.5824	1.424E+00	0.0260	7.691E+00	0.1402	2.283E+00	0.0416

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.
Pa-231	0.000E+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	2.456E+00	0.0448
Ra-226	0.000E+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	4.663E+00	0.0850
Th-228	0.000E+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	4.192E-03	0.0001
Th-230	0.000E+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	2.447E-01	0.0045
Th-232	0.000E+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	5.276E-01	0.0096
U-234	0.000E+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	1.815E+01	0.3310
U-235	0.000E+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	2.919E+00	0.0532
U-236	0.000E+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	4.122E-01	0.0075
U-238	0.000E+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	2.547E+01	0.4643
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	5.485E+01	1.0000

*Sum of all water independent and dependent pathways.

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.
Pa-231	6.626E-02	0.0012	8.728E-03	0.0002	0.000E+00	0.0000	2.221E+00	0.0394	3.451E-01	0.0061	5.476E-03	0.0001	7.007E-02	0.0012
Ra-226	1.207E+00	0.0214	8.648E-05	0.0000	0.000E+00	0.0000	3.981E+00	0.0706	9.714E-02	0.0017	3.947E-01	0.0070	4.856E-02	0.0009
Th-228	2.878E-06	0.0000	3.406E-09	0.0000	0.000E+00	0.0000	8.619E-08	0.0000	2.212E-09	0.0000	4.239E-10	0.0000	1.766E-08	0.0000
Th-230	8.144E-02	0.0014	6.287E-03	0.0001	0.000E+00	0.0000	3.287E-01	0.0058	7.858E-03	0.0001	2.384E-02	0.0004	2.557E-02	0.0005
Th-232	2.762E-01	0.0049	1.222E-03	0.0000	0.000E+00	0.0000	3.981E-01	0.0071	7.804E-03	0.0001	4.910E-02	0.0009	6.723E-03	0.0001
U-234	2.064E-02	0.0004	2.198E-01	0.0039	0.000E+00	0.0000	1.270E+01	0.2251	4.785E-01	0.0085	3.509E+00	0.0622	1.044E+00	0.0185
U-235	1.955E+00	0.0347	1.115E-02	0.0002	0.000E+00	0.0000	7.147E-01	0.0127	3.656E-02	0.0006	1.772E-01	0.0031	5.468E-02	0.0010
U-236	2.539E-04	0.0000	4.972E-03	0.0001	0.000E+00	0.0000	2.883E-01	0.0051	1.087E-02	0.0002	7.971E-02	0.0014	2.370E-02	0.0004
U-238	7.572E+00	0.1343	2.059E-01	0.0037	0.000E+00	0.0000	1.263E+01	0.2240	4.761E-01	0.0084	3.492E+00	0.0619	1.038E+00	0.0184
Total	1.118E+01	0.1982	4.582E-01	0.0081	0.000E+00	0.0000	3.326E+01	0.5897	1.460E+00	0.0259	7.731E+00	0.1371	2.311E+00	0.0410

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.
Pa-231	0.000E+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	2.717E+00	0.0482
Ra-226	0.000E+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	5.728E+00	0.1016
Th-228	0.000E+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	2.988E-06	0.0000
Th-230	0.000E+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	4.737E-01	0.0084
Th-232	0.000E+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	7.392E-01	0.0131
U-234	0.000E+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	1.797E+01	0.3186
U-235	0.000E+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	2.950E+00	0.0523
U-236	0.000E+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	4.078E-01	0.0072
U-238	0.000E+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	2.542E+01	0.4506
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	5.640E+01	1.0000

*Sum of all water independent and dependent pathways.

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.
Pa-231	9.637E-02	0.0017	1.221E-02	0.0002	0.000E+00	0.0000	2.404E+00	0.0415	3.409E-01	0.0059	7.370E-03	0.0001	8.667E-02	0.0015
Ra-226	1.169E+00	0.0202	1.136E-04	0.0000	0.000E+00	0.0000	4.865E+00	0.0840	1.245E-01	0.0022	4.424E-01	0.0076	6.779E-02	0.0012
Th-228	2.780E-17	0.0000	3.291E-20	0.0000	0.000E+00	0.0000	8.327E-19	0.0000	2.137E-20	0.0000	4.095E-21	0.0000	1.706E-19	0.0000
Th-230	2.625E-01	0.0045	6.294E-03	0.0001	0.000E+00	0.0000	1.030E+00	0.0178	2.555E-02	0.0004	8.923E-02	0.0015	3.496E-02	0.0006
Th-232	2.854E-01	0.0049	1.229E-03	0.0000	0.000E+00	0.0000	4.078E-01	0.0070	7.993E-03	0.0001	5.035E-02	0.0009	6.809E-03	0.0001
U-234	2.927E-02	0.0005	2.121E-01	0.0037	0.000E+00	0.0000	1.227E+01	0.2120	4.619E-01	0.0080	3.384E+00	0.0585	1.007E+00	0.0174
U-235	1.891E+00	0.0327	1.166E-02	0.0002	0.000E+00	0.0000	8.810E-01	0.0152	6.328E-02	0.0011	1.714E-01	0.0030	5.937E-02	0.0010
U-236	2.448E-04	0.0000	4.792E-03	0.0001	0.000E+00	0.0000	2.779E-01	0.0048	1.047E-02	0.0002	7.683E-02	0.0013	2.284E-02	0.0004
U-238	7.514E+00	0.1298	2.044E-01	0.0035	0.000E+00	0.0000	1.254E+01	0.2166	4.726E-01	0.0082	3.466E+00	0.0599	1.030E+00	0.0178
Total	1.125E+01	0.1943	4.528E-01	0.0078	0.000E+00	0.0000	3.467E+01	0.5990	1.507E+00	0.0260	7.688E+00	0.1328	2.316E+00	0.0400

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.
Pa-231	0.000E+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	2.948E+00	0.0509
Ra-226	0.000E+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	6.669E+00	0.1152
Th-228	0.000E+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	2.886E-17	0.0000
Th-230	0.000E+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	1.448E+00	0.0250
Th-232	0.000E+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	7.596E-01	0.0131
U-234	0.000E+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	1.736E+01	0.3000
U-235	0.000E+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	3.078E+00	0.0532
U-236	0.000E+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	3.931E-01	0.0068
U-238	0.000E+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	2.523E+01	0.4358
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	5.789E+01	1.0000

*Sum of all water independent and dependent pathways.

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.
Pa-231	9.629E-02	0.0016	1.216E-02	0.0002	0.000E+00	0.0000	2.337E+00	0.0399	3.278E-01	0.0056	7.317E-03	0.0001	8.540E-02	0.0015
Ra-226	1.068E+00	0.0182	1.074E-04	0.0000	0.000E+00	0.0000	4.566E+00	0.0779	1.174E-01	0.0020	4.114E-01	0.0070	6.444E-02	0.0011
Th-228	0.000E+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
Th-230	7.480E-01	0.0128	6.317E-03	0.0001	0.000E+00	0.0000	3.096E+00	0.0528	7.864E-02	0.0013	2.757E-01	0.0047	6.397E-02	0.0011
Th-232	2.848E-01	0.0049	1.226E-03	0.0000	0.000E+00	0.0000	4.069E-01	0.0069	7.975E-03	0.0001	5.023E-02	0.0009	6.794E-03	0.0001
U-234	1.032E-01	0.0018	1.917E-01	0.0033	0.000E+00	0.0000	1.135E+01	0.1935	4.232E-01	0.0072	3.070E+00	0.0524	9.130E-01	0.0156
U-235	1.724E+00	0.0294	1.328E-02	0.0002	0.000E+00	0.0000	1.330E+00	0.0227	1.324E-01	0.0023	1.559E-01	0.0027	7.302E-02	0.0012
U-236	2.204E-04	0.0000	4.313E-03	0.0001	0.000E+00	0.0000	2.501E-01	0.0043	9.426E-03	0.0002	6.914E-02	0.0012	2.055E-02	0.0004
U-238	7.353E+00	0.1254	2.001E-01	0.0034	0.000E+00	0.0000	1.228E+01	0.2093	4.627E-01	0.0079	3.394E+00	0.0579	1.009E+00	0.0172
Total	1.138E+01	0.1940	4.292E-01	0.0073	0.000E+00	0.0000	3.561E+01	0.6072	1.560E+00	0.0266	7.434E+00	0.1268	2.236E+00	0.0381

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.
Pa-231	0.000E+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	2.866E+00	0.0489
Ra-226	0.000E+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	6.228E+00	0.1062
Th-228	0.000E+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
Th-230	0.000E+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	4.268E+00	0.0728
Th-232	0.000E+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	7.579E-01	0.0129
U-234	0.000E+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	1.605E+01	0.2736
U-235	0.000E+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	3.429E+00	0.0585
U-236	0.000E+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	3.537E-01	0.0060
U-238	0.000E+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	2.469E+01	0.4211
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	5.864E+01	1.0000

*Sum of all water independent and dependent pathways.

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.
Pa-231	8.397E-02	0.0013	1.061E-02	0.0002	0.000E+00	0.0000	2.038E+00	0.0326	2.859E-01	0.0046	6.381E-03	0.0001	7.446E-02	0.0012
Ra-226	7.787E-01	0.0124	7.830E-05	0.0000	0.000E+00	0.0000	3.328E+00	0.0532	8.558E-02	0.0014	2.999E-01	0.0048	4.697E-02	0.0008
Th-228	0.000E+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
Th-230	2.125E+00	0.0340	6.367E-03	0.0001	0.000E+00	0.0000	8.981E+00	0.1435	2.300E-01	0.0037	8.061E-01	0.0129	1.467E-01	0.0023
Th-232	2.825E-01	0.0045	1.216E-03	0.0000	0.000E+00	0.0000	4.037E-01	0.0065	7.912E-03	0.0001	4.984E-02	0.0008	6.740E-03	0.0001
U-234	7.714E-01	0.0123	1.351E-01	0.0022	0.000E+00	0.0000	1.077E+01	0.1721	3.671E-01	0.0059	2.380E+00	0.0380	6.802E-01	0.0109
U-235	1.255E+00	0.0201	1.707E-02	0.0003	0.000E+00	0.0000	2.435E+00	0.0389	3.041E-01	0.0049	1.126E-01	0.0018	1.058E-01	0.0017
U-236	1.530E-04	0.0000	2.982E-03	0.0000	0.000E+00	0.0000	1.729E-01	0.0028	6.518E-03	0.0001	4.781E-02	0.0008	1.421E-02	0.0002
U-238	6.815E+00	0.1089	1.858E-01	0.0030	0.000E+00	0.0000	1.140E+01	0.1821	4.295E-01	0.0069	3.150E+00	0.0503	9.365E-01	0.0150
Total	1.211E+01	0.1935	3.592E-01	0.0057	0.000E+00	0.0000	3.952E+01	0.6316	1.717E+00	0.0274	6.853E+00	0.1095	2.012E+00	0.0321

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.
Pa-231	0.000E+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	2.499E+00	0.0399
Ra-226	0.000E+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	4.539E+00	0.0725
Th-228	0.000E+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
Th-230	0.000E+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	1.230E+01	0.1965
Th-232	0.000E+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	7.519E-01	0.0120
U-234	0.000E+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	1.510E+01	0.2413
U-235	0.000E+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	4.229E+00	0.0676
U-236	0.000E+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	2.446E-01	0.0039
U-238	0.000E+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	2.292E+01	0.3662
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	6.258E+01	1.0000

*Sum of all water independent and dependent pathways.

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
Pa-231	Pa-231	1.000E+00	1.715E+01	1.714E+01	1.714E+01	1.711E+01	1.705E+01	1.682E+01	1.617E+01	1.410E+01
Pa-231	Ac-227+D	1.000E+00	1.162E-01	3.102E-01	6.739E-01	1.778E+00	3.850E+00	5.861E+00	5.877E+00	5.125E+00
Pa-231	∑DSR(j)		1.726E+01	1.745E+01	1.781E+01	1.889E+01	2.090E+01	2.268E+01	2.205E+01	1.922E+01
Ra-226+D	Ra-226+D	1.000E+00	1.208E+01	1.207E+01	1.206E+01	1.202E+01	1.191E+01	1.154E+01	1.054E+01	7.685E+00
Ra-226+D	Pb-210+D	1.000E+00	1.957E-01	5.247E-01	1.142E+00	3.021E+00	6.566E+00	9.972E+00	9.546E+00	6.958E+00
Ra-226+D	∑DSR(j)		1.227E+01	1.259E+01	1.320E+01	1.504E+01	1.848E+01	2.151E+01	2.009E+01	1.464E+01
Th-228+D	Th-228+D	1.000E+00	3.141E+00	2.186E+00	1.059E+00	8.385E-02	5.975E-05	5.773E-16	0.000E+00	0.000E+00
Th-230	Th-230	1.000E+00	9.492E-02	9.491E-02	9.491E-02	9.490E-02	9.486E-02	9.472E-02	9.434E-02	9.300E-02
Th-230	Ra-226+D	1.000E+00	2.491E-03	7.699E-03	1.815E-02	5.466E-02	1.583E-01	5.134E-01	1.466E+00	4.166E+00
Th-230	Pb-210+D	1.000E+00	3.065E-05	1.882E-04	9.132E-04	7.331E-03	5.048E-02	3.201E-01	1.176E+00	3.623E+00
Th-230	∑DSR(j)		9.744E-02	1.028E-01	1.140E-01	1.569E-01	3.036E-01	9.282E-01	2.736E+00	7.882E+00
Th-232	Th-232	1.000E+00	4.711E-01	4.711E-01	4.710E-01	4.710E-01	4.709E-01	4.705E-01	4.695E-01	4.658E-01
Th-232	Ra-228+D	1.000E+00	5.985E-01	1.768E+00	3.733E+00	7.842E+00	1.066E+01	1.093E+01	1.091E+01	1.082E+01
Th-232	Th-228+D	1.000E+00	2.693E-02	1.568E-01	6.080E-01	2.239E+00	3.651E+00	3.791E+00	3.783E+00	3.753E+00
Th-232	∑DSR(j)		1.097E+00	2.395E+00	4.812E+00	1.055E+01	1.478E+01	1.519E+01	1.516E+01	1.504E+01
U-234	U-234	1.000E+00	1.334E-01	1.333E-01	1.332E-01	1.327E-01	1.313E-01	1.265E-01	1.137E-01	7.839E-02
U-234	Th-230	1.000E+00	4.580E-07	1.317E-06	3.024E-06	8.981E-06	2.588E-05	8.357E-05	2.366E-04	6.558E-04
U-234	Ra-226+D	1.000E+00	7.245E-09	5.299E-08	2.856E-07	2.576E-06	2.165E-05	2.299E-04	1.924E-03	1.698E-02
U-234	Pb-210+D	1.000E+00	7.309E-11	9.528E-10	1.006E-08	2.396E-07	4.965E-06	1.150E-04	1.402E-03	1.435E-02
U-234	∑DSR(j)		1.334E-01	1.333E-01	1.332E-01	1.327E-01	1.313E-01	1.269E-01	1.173E-01	1.104E-01
U-235+D	U-235+D	1.000E+00	3.974E-01	3.971E-01	3.967E-01	3.953E-01	3.911E-01	3.770E-01	3.393E-01	2.346E-01
U-235+D	Pa-231	1.000E+00	1.711E-04	5.319E-04	1.256E-03	3.784E-03	1.093E-02	3.516E-02	9.785E-02	2.540E-01
U-235+D	Ac-227+D	1.000E+00	8.959E-07	5.452E-06	2.634E-05	2.106E-04	1.440E-03	8.981E-03	3.200E-02	8.987E-02
U-235+D	∑DSR(j)		3.975E-01	3.977E-01	3.980E-01	3.993E-01	4.035E-01	4.211E-01	4.691E-01	5.785E-01
U-236	U-236	1.000E+00	1.267E-01	1.266E-01	1.265E-01	1.260E-01	1.247E-01	1.202E-01	1.082E-01	7.481E-02
U-236	Th-232	1.000E+00	1.246E-11	3.583E-11	8.225E-11	2.443E-10	7.040E-10	2.274E-09	6.448E-09	1.796E-08
U-236	Ra-228+D	1.000E+00	9.569E-12	6.833E-11	3.434E-10	2.436E-09	1.200E-08	4.853E-08	1.459E-07	4.145E-07
U-236	Th-228+D	1.000E+00	3.495E-13	4.475E-12	4.088E-11	5.502E-10	3.684E-09	1.635E-08	5.018E-08	1.435E-07
U-236	∑DSR(j)		1.267E-01	1.266E-01	1.265E-01	1.260E-01	1.247E-01	1.202E-01	1.082E-01	7.481E-02
U-238	U-238	5.400E-05	6.485E-06	6.484E-06	6.483E-06	6.478E-06	6.464E-06	6.415E-06	6.277E-06	5.817E-06
U-238+D	U-238+D	9.999E-01	1.801E-01	1.801E-01	1.800E-01	1.799E-01	1.795E-01	1.781E-01	1.743E-01	1.615E-01
U-238+D	U-234	9.999E-01	1.891E-07	5.670E-07	1.322E-06	3.958E-06	1.142E-05	3.681E-05	1.033E-04	2.767E-04
U-238+D	Th-230	9.999E-01	4.522E-13	2.977E-12	1.528E-11	1.344E-10	1.122E-09	1.198E-08	1.024E-07	9.786E-07
U-238+D	Ra-226+D	9.999E-01	5.007E-15	7.926E-14	9.501E-13	2.554E-11	6.245E-10	2.195E-08	5.555E-07	1.695E-05
U-238+D	Pb-210+D	9.999E-01	4.343E-17	1.163E-15	2.621E-14	1.833E-12	1.126E-10	9.215E-09	3.699E-07	1.387E-05
U-238+D	∑DSR(j)		1.801E-01	1.801E-01	1.800E-01	1.799E-01	1.795E-01	1.782E-01	1.744E-01	1.618E-01

The DSR includes contributions from associated (half-life ≤ 180 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
Pa-231	1.448E+00	1.432E+00	1.404E+00	1.323E+00	1.196E+00	1.102E+00	1.134E+00	1.301E+00
Ra-226	2.037E+00	1.985E+00	1.894E+00	1.662E+00	1.353E+00	1.162E+00	1.244E+00	1.707E+00
Th-228	7.960E+00	1.144E+01	2.360E+01	2.982E+02	4.184E+05	*8.195E+14	*8.195E+14	*8.195E+14
Th-230	2.566E+02	2.432E+02	2.193E+02	1.594E+02	8.234E+01	2.693E+01	9.137E+00	3.172E+00
Th-232	2.280E+01	1.044E+01	5.195E+00	2.369E+00	1.691E+00	1.646E+00	1.649E+00	1.662E+00
U-234	1.874E+02	1.875E+02	1.877E+02	1.884E+02	1.904E+02	1.970E+02	2.132E+02	2.265E+02
U-235	6.289E+01	6.286E+01	6.281E+01	6.262E+01	6.196E+01	5.937E+01	5.329E+01	4.321E+01
U-236	1.973E+02	1.974E+02	1.976E+02	1.983E+02	2.004E+02	2.080E+02	2.311E+02	3.342E+02
U-238	1.388E+02	1.388E+02	1.389E+02	1.390E+02	1.393E+02	1.403E+02	1.433E+02	1.545E+02

*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 = 1.000E+03 years

Nuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
Pa-231	1.300E-01	118.2 ± 0.2	2.270E+01	1.101E+00	1.922E+01	1.301E+00
Ra-226	3.100E-01	113.1 ± 0.2	2.154E+01	1.160E+00	1.464E+01	1.707E+00
Th-228	5.000E-02	0.000E+00	3.141E+00	7.960E+00	0.000E+00	*8.195E+14
Th-230	1.560E+00	1.000E+03	7.882E+00	3.172E+00	7.882E+00	3.172E+00
Th-232	5.000E-02	77.2 ± 0.2	1.519E+01	1.645E+00	1.504E+01	1.662E+00
U-234	1.368E+02	0.000E+00	1.334E-01	1.874E+02	1.104E-01	2.265E+02
U-235	7.310E+00	1.000E+03	5.785E-01	4.321E+01	5.785E-01	4.321E+01
U-236	3.270E+00	0.000E+00	1.267E-01	1.973E+02	7.481E-02	3.342E+02
U-238	1.416E+02	0.000E+00	1.801E-01	1.388E+02	1.619E-01	1.545E+02

*At specific activity limit

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
Pa-231	Pa-231	1.000E+00	2.229E+00	2.229E+00	2.228E+00	2.225E+00	2.216E+00	2.186E+00	2.102E+00	1.833E+00
Pa-231	U-235	1.000E+00	1.251E-03	3.889E-03	9.184E-03	2.766E-02	7.993E-02	2.570E-01	7.153E-01	1.857E+00
Pa-231	∑DOSE(j)		2.230E+00	2.233E+00	2.237E+00	2.252E+00	2.296E+00	2.443E+00	2.817E+00	3.690E+00
Ac-227	Pa-231	1.000E+00	1.511E-02	4.033E-02	8.761E-02	2.311E-01	5.004E-01	7.619E-01	7.640E-01	6.662E-01
Ac-227	U-235	1.000E+00	6.549E-06	3.985E-05	1.926E-04	1.539E-03	1.053E-02	6.565E-02	2.339E-01	6.570E-01
Ac-227	∑DOSE(j)		1.511E-02	4.037E-02	8.780E-02	2.326E-01	5.110E-01	8.275E-01	9.979E-01	1.323E+00
Ra-226	Ra-226	1.000E+00	3.743E+00	3.742E+00	3.738E+00	3.726E+00	3.693E+00	3.578E+00	3.269E+00	2.382E+00
Ra-226	Th-230	1.000E+00	3.885E-03	1.201E-02	2.832E-02	8.527E-02	2.469E-01	8.009E-01	2.286E+00	6.498E+00
Ra-226	U-234	1.000E+00	9.914E-07	7.251E-06	3.907E-05	3.524E-04	2.962E-03	3.146E-02	2.633E-01	2.323E+00
Ra-226	U-238	9.999E-01	7.089E-13	1.122E-11	1.345E-10	3.616E-09	8.842E-08	3.108E-06	7.865E-05	2.400E-03
Ra-226	∑DOSE(j)		3.747E+00	3.754E+00	3.767E+00	3.812E+00	3.943E+00	4.410E+00	5.818E+00	1.121E+01
Pb-210	Ra-226	1.000E+00	6.066E-02	1.627E-01	3.541E-01	9.365E-01	2.035E+00	3.091E+00	2.959E+00	2.157E+00
Pb-210	Th-230	1.000E+00	4.782E-05	2.936E-04	1.425E-03	1.144E-02	7.874E-02	4.993E-01	1.835E+00	5.652E+00
Pb-210	U-234	1.000E+00	1.000E-08	1.304E-07	1.377E-06	3.278E-05	6.794E-04	1.574E-02	1.918E-01	1.963E+00
Pb-210	U-238	9.999E-01	6.149E-15	1.646E-13	3.711E-12	2.595E-10	1.594E-08	1.305E-06	5.237E-05	1.964E-03
Pb-210	∑DOSE(j)		6.071E-02	1.629E-01	3.556E-01	9.480E-01	2.115E+00	3.606E+00	4.986E+00	9.774E+00
Th-228	Th-228	1.000E+00	1.570E-01	1.093E-01	5.296E-02	4.192E-03	2.988E-06	2.886E-17	0.000E+00	0.000E+00
Th-228	Th-232	1.000E+00	1.346E-03	7.842E-03	3.040E-02	1.120E-01	1.826E-01	1.896E-01	1.891E-01	1.876E-01
Th-228	U-236	1.000E+00	1.143E-12	1.463E-11	1.337E-10	1.799E-09	1.205E-08	5.348E-08	1.641E-07	4.692E-07
Th-228	∑DOSE(j)		1.584E-01	1.172E-01	8.336E-02	1.162E-01	1.826E-01	1.896E-01	1.891E-01	1.876E-01
Th-230	Th-230	1.000E+00	1.481E-01	1.481E-01	1.481E-01	1.480E-01	1.480E-01	1.478E-01	1.472E-01	1.451E-01
Th-230	U-234	1.000E+00	6.267E-05	1.802E-04	4.137E-04	1.229E-03	3.541E-03	1.143E-02	3.237E-02	8.973E-02
Th-230	U-238	9.999E-01	6.403E-11	4.214E-10	2.163E-09	1.903E-08	1.589E-07	1.695E-06	1.450E-05	1.386E-04
Th-230	∑DOSE(j)		1.481E-01	1.482E-01	1.485E-01	1.493E-01	1.515E-01	1.592E-01	1.796E-01	2.350E-01
Th-232	Th-232	1.000E+00	2.355E-02	2.355E-02	2.355E-02	2.355E-02	2.355E-02	2.353E-02	2.347E-02	2.329E-02
Th-232	U-236	1.000E+00	4.074E-11	1.172E-10	2.689E-10	7.989E-10	2.302E-09	7.437E-09	2.109E-08	5.873E-08
Th-232	∑DOSE(j)		2.355E-02	2.355E-02	2.355E-02	2.355E-02	2.355E-02	2.353E-02	2.347E-02	2.329E-02
Ra-228	Th-232	1.000E+00	2.993E-02	8.838E-02	1.867E-01	3.921E-01	5.331E-01	5.465E-01	5.453E-01	5.410E-01
Ra-228	U-236	1.000E+00	3.129E-11	2.234E-10	1.123E-09	7.966E-09	3.925E-08	1.587E-07	4.772E-07	1.356E-06
Ra-228	∑DOSE(j)		2.993E-02	8.838E-02	1.867E-01	3.921E-01	5.331E-01	5.465E-01	5.453E-01	5.410E-01
U-234	U-234	1.000E+00	1.825E+01	1.824E+01	1.822E+01	1.815E+01	1.796E+01	1.730E+01	1.556E+01	1.073E+01
U-234	U-238	9.999E-01	2.677E-05	8.027E-05	1.872E-04	5.603E-04	1.617E-03	5.211E-03	1.462E-02	3.918E-02
U-234	∑DOSE(j)		1.825E+01	1.824E+01	1.822E+01	1.815E+01	1.796E+01	1.731E+01	1.557E+01	1.076E+01
U-235	U-235	1.000E+00	2.905E+00	2.903E+00	2.900E+00	2.889E+00	2.859E+00	2.756E+00	2.480E+00	1.715E+00
U-236	U-236	1.000E+00	4.143E-01	4.141E-01	4.137E-01	4.122E-01	4.078E-01	3.931E-01	3.537E-01	2.446E-01
U-238	U-238	5.400E-05	9.182E-04	9.181E-04	9.179E-04	9.172E-04	9.152E-04	9.082E-04	8.887E-04	8.236E-04
U-238	U-238	9.999E-01	2.550E+01	2.549E+01	2.549E+01	2.547E+01	2.541E+01	2.522E+01	2.468E+01	2.287E+01
U-238	∑DOSE(j)		2.550E+01	2.549E+01	2.549E+01	2.547E+01	2.541E+01	2.522E+01	2.468E+01	2.287E+01

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
Pa-231	Pa-231	1.000E+00	1.300E-01	1.300E-01	1.299E-01	1.297E-01	1.292E-01	1.275E-01	1.226E-01	1.069E-01
Pa-231	U-235	1.000E+00	0.000E+00	1.546E-04	4.635E-04	1.541E-03	4.590E-03	1.492E-02	4.165E-02	1.083E-01
Pa-231	∑S(j):		1.300E-01	1.301E-01	1.304E-01	1.313E-01	1.338E-01	1.424E-01	1.642E-01	2.151E-01
Ac-227	Pa-231	1.000E+00	0.000E+00	4.073E-03	1.184E-02	3.540E-02	7.963E-02	1.226E-01	1.230E-01	1.073E-01
Ac-227	U-235	1.000E+00	0.000E+00	2.435E-06	2.145E-05	2.214E-04	1.637E-03	1.048E-02	3.758E-02	1.057E-01
Ac-227	∑S(j):		0.000E+00	4.075E-03	1.186E-02	3.562E-02	8.126E-02	1.331E-01	1.606E-01	2.130E-01
Ra-226	Ra-226	1.000E+00	3.100E-01	3.099E-01	3.096E-01	3.086E-01	3.058E-01	2.963E-01	2.707E-01	1.973E-01
Ra-226	Th-230	1.000E+00	0.000E+00	6.757E-04	2.026E-03	6.742E-03	2.013E-02	6.601E-02	1.890E-01	5.378E-01
Ra-226	U-234	1.000E+00	0.000E+00	2.667E-07	2.399E-06	2.659E-05	2.377E-04	2.580E-03	2.173E-02	1.922E-01
Ra-226	U-238	9.999E-01	0.000E+00	2.608E-13	7.037E-12	2.601E-10	6.985E-09	2.537E-07	6.482E-06	1.985E-04
Ra-226	∑S(j):		3.100E-01	3.105E-01	3.116E-01	3.154E-01	3.262E-01	3.649E-01	4.814E-01	9.275E-01
Pb-210	Ra-226	1.000E+00	0.000E+00	9.485E-03	2.758E-02	8.261E-02	1.865E-01	2.864E-01	2.744E-01	2.000E-01
Pb-210	Th-230	1.000E+00	0.000E+00	1.039E-05	9.161E-05	9.478E-04	7.052E-03	4.591E-02	1.697E-01	5.237E-01
Pb-210	U-234	1.000E+00	0.000E+00	2.742E-09	7.287E-08	2.556E-06	5.956E-05	1.437E-03	1.771E-02	1.818E-01
Pb-210	U-238	9.999E-01	0.000E+00	2.014E-15	1.611E-13	1.903E-11	1.368E-09	1.184E-07	4.824E-06	1.818E-04
Pb-210	∑S(j):		0.000E+00	9.496E-03	2.767E-02	8.356E-02	1.936E-01	3.338E-01	4.619E-01	9.057E-01
Th-228	Th-228	1.000E+00	5.000E-02	3.480E-02	1.686E-02	1.335E-03	9.512E-07	9.190E-18	0.000E+00	0.000E+00
Th-228	Th-232	1.000E+00	0.000E+00	9.322E-04	6.216E-03	2.822E-02	4.797E-02	4.994E-02	4.983E-02	4.943E-02
Th-228	U-236	1.000E+00	0.000E+00	1.043E-12	2.248E-11	4.238E-10	3.091E-09	1.401E-08	4.315E-08	1.236E-07
Th-228	∑S(j):		5.000E-02	3.573E-02	2.308E-02	2.955E-02	4.797E-02	4.994E-02	4.983E-02	4.943E-02
Th-230	Th-230	1.000E+00	1.560E+00	1.560E+00	1.560E+00	1.560E+00	1.559E+00	1.557E+00	1.551E+00	1.529E+00
Th-230	U-234	1.000E+00	0.000E+00	1.231E-03	3.692E-03	1.228E-02	3.665E-02	1.198E-01	3.405E-01	9.449E-01
Th-230	U-238	9.999E-01	0.000E+00	1.806E-09	1.625E-08	1.802E-07	1.615E-06	1.767E-05	1.523E-04	1.458E-03
Th-230	∑S(j):		1.560E+00	1.561E+00	1.564E+00	1.572E+00	1.596E+00	1.677E+00	1.891E+00	2.475E+00
Th-232	Th-232	1.000E+00	5.000E-02	5.000E-02	5.000E-02	4.999E-02	4.998E-02	4.994E-02	4.983E-02	4.944E-02
Th-232	U-236	1.000E+00	0.000E+00	1.613E-10	4.836E-10	1.609E-09	4.801E-09	1.571E-08	4.469E-08	1.246E-07
Th-232	∑S(j):		5.000E-02	5.000E-02	5.000E-02	4.999E-02	4.998E-02	4.994E-02	4.983E-02	4.944E-02
Ra-228	Th-232	1.000E+00	0.000E+00	5.678E-03	1.517E-02	3.502E-02	4.864E-02	4.994E-02	4.983E-02	4.943E-02
Ra-228	U-236	1.000E+00	0.000E+00	9.343E-12	7.781E-11	6.745E-10	3.514E-09	1.443E-08	4.354E-08	1.238E-07
Ra-228	∑S(j):		0.000E+00	5.678E-03	1.517E-02	3.502E-02	4.864E-02	4.994E-02	4.983E-02	4.943E-02
U-234	U-234	1.000E+00	1.368E+02	1.368E+02	1.366E+02	1.361E+02	1.347E+02	1.297E+02	1.167E+02	8.042E+01
U-234	U-238	9.999E-01	0.000E+00	4.012E-04	1.203E-03	4.001E-03	1.193E-02	3.887E-02	1.095E-01	2.936E-01
U-234	∑S(j):		1.368E+02	1.368E+02	1.366E+02	1.361E+02	1.347E+02	1.298E+02	1.168E+02	8.071E+01
U-235	U-235	1.000E+00	7.310E+00	7.306E+00	7.298E+00	7.272E+00	7.195E+00	6.935E+00	6.241E+00	4.316E+00
U-236	U-236	1.000E+00	3.270E+00	3.268E+00	3.265E+00	3.253E+00	3.219E+00	3.102E+00	2.792E+00	1.931E+00
U-238	U-238	5.400E-05	7.645E-03	7.644E-03	7.643E-03	7.637E-03	7.620E-03	7.563E-03	7.400E-03	6.858E-03
U-238	U-238	9.999E-01	1.416E+02	1.416E+02	1.415E+02	1.414E+02	1.411E+02	1.400E+02	1.370E+02	1.270E+02
U-238	∑S(j):		1.416E+02	1.416E+02	1.415E+02	1.414E+02	1.411E+02	1.401E+02	1.370E+02	1.270E+02

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

RESCALC.EXE execution time = 28.59 seconds