

Summary : MTW Pond D Farmer - Deterministic Run - NO COVER

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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)

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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	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	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	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	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	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				

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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				

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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-235D , fish	1.000E+01	1.000E+01	BIOFAC(10,1)
D-5	U-235D , 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-238D , fish	1.000E+01	1.000E+01	BIOFAC(13,1)
D-5	U-238D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(13,2)

#For DCF1(xxx) only, factors are for infinite depth & area. See EFTG 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)	3.900E+03	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.959E+00	2.000E+00	---	THICKO
R011	Fraction of contamination that is submerged	0.000E+00	0.000E+00	---	SUBMFRACT
R011	Length parallel to aquifer flow (m)	6.500E+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	2.500E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Ra-226	4.600E-01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Th-228	2.800E-01	0.000E+00	---	S1(6)
R012	Initial principal radionuclide (pCi/g): Th-230	1.140E+00	0.000E+00	---	S1(7)
R012	Initial principal radionuclide (pCi/g): Th-232	7.000E-02	0.000E+00	---	S1(8)
R012	Initial principal radionuclide (pCi/g): U-234	4.808E+02	0.000E+00	---	S1(9)
R012	Initial principal radionuclide (pCi/g): U-235	8.680E+00	0.000E+00	---	S1(10)
R012	Initial principal radionuclide (pCi/g): U-236	1.287E+01	0.000E+00	---	S1(11)
R012	Initial principal radionuclide (pCi/g): U-238	5.038E+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	---	COVERO
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)

Summary : MTW Pond D Farmer - Deterministic Run - NO COVER

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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	Unsat. zone 1 (cm**3/g)	3.707E+02	5.000E+01	---	DCNUCU (2,1)
R016	Unsat. zone 2 (cm**3/g)	3.751E+02	5.000E+01	---	DCNUCU (2,2)
R016	Unsat. zone 3 (cm**3/g)	3.753E+02	5.000E+01	---	DCNUCU (2,3)
R016	Unsat. zone 4 (cm**3/g)	3.782E+02	5.000E+01	---	DCNUCU (2,4)
R016	Unsat. 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	2.428E-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	Unsat. zone 1 (cm**3/g)	3.507E+03	7.000E+01	---	DCNUCU (4,1)
R016	Unsat. zone 2 (cm**3/g)	3.506E+03	7.000E+01	---	DCNUCU (4,2)
R016	Unsat. zone 3 (cm**3/g)	3.523E+03	7.000E+01	---	DCNUCU (4,3)
R016	Unsat. zone 4 (cm**3/g)	3.485E+03	7.000E+01	---	DCNUCU (4,4)
R016	Unsat. 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	2.597E-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	Unsat. zone 1 (cm**3/g)	5.736E+03	6.000E+04	---	DCNUCU (6,1)
R016	Unsat. zone 2 (cm**3/g)	5.825E+03	6.000E+04	---	DCNUCU (6,2)
R016	Unsat. zone 3 (cm**3/g)	5.786E+03	6.000E+04	---	DCNUCU (6,3)
R016	Unsat. zone 4 (cm**3/g)	5.775E+03	6.000E+04	---	DCNUCU (6,4)
R016	Unsat. 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	1.545E-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	Unsat. zone 1 (cm**3/g)	5.843E+03	6.000E+04	---	DCNUCU (7,1)
R016	Unsat. zone 2 (cm**3/g)	5.843E+03	6.000E+04	---	DCNUCU (7,2)
R016	Unsat. zone 3 (cm**3/g)	5.882E+03	6.000E+04	---	DCNUCU (7,3)
R016	Unsat. zone 4 (cm**3/g)	5.779E+03	6.000E+04	---	DCNUCU (7,4)
R016	Unsat. 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	1.576E-05	ALEACH (7)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (7)

Summary : MTW Pond D Farmer - Deterministic Run - NO COVER

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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 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	1.576E-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	7.351E-04	ALEACH (9)
R016	Solubility constant	2.940E-06	0.000E+00	Sol. Kd = -7.748E-02 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	7.328E-04	ALEACH (10)
R016	Solubility constant	2.940E-06	0.000E+00	Sol. Kd = 5.623E+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	7.328E-04	ALEACH (11)
R016	Solubility constant	2.940E-06	0.000E+00	Sol. Kd = 9.740E-02 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	2.142E+03	DCNUCC (12)
R016	Unsaturated zone 1 (cm**3/g)	1.238E+02	5.000E+01	2.142E+03	DCNUCU (12,1)
R016	Unsaturated zone 2 (cm**3/g)	1.245E+02	5.000E+01	2.142E+03	DCNUCU (12,2)
R016	Unsaturated zone 3 (cm**3/g)	1.234E+02	5.000E+01	2.142E+03	DCNUCU (12,3)
R016	Unsaturated zone 4 (cm**3/g)	1.240E+02	5.000E+01	2.142E+03	DCNUCU (12,4)
R016	Unsaturated zone 5 (cm**3/g)	1.262E+02	5.000E+01	2.142E+03	DCNUCU (12,5)
R016	Saturated zone (cm**3/g)	1.243E+02	5.000E+01	2.142E+03	DCNUCS (12)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.245E-05	ALEACH (12)
R016	Solubility constant	2.940E-06	0.000E+00	Sol. Kd = 2.142E+03 used	SOLUBK (12)
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	8.245E+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	1.103E-04	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	3.830E-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	2.606E-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	3.970E-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:	3.917E+00	5.000E+01	---	RAD_SHAPE(1)
R017	Outer annular radius (m), ring 2:	7.833E+00	7.071E+01	---	RAD_SHAPE(2)
R017	Outer annular radius (m), ring 3:	1.175E+01	0.000E+00	---	RAD_SHAPE(3)
R017	Outer annular radius (m), ring 4:	1.567E+01	0.000E+00	---	RAD_SHAPE(4)
R017	Outer annular radius (m), ring 5:	1.958E+01	0.000E+00	---	RAD_SHAPE(5)
R017	Outer annular radius (m), ring 6:	2.350E+01	0.000E+00	---	RAD_SHAPE(6)
R017	Outer annular radius (m), ring 7:	2.742E+01	0.000E+00	---	RAD_SHAPE(7)
R017	Outer annular radius (m), ring 8:	3.133E+01	0.000E+00	---	RAD_SHAPE(8)
R017	Outer annular radius (m), ring 9:	3.525E+01	0.000E+00	---	RAD_SHAPE(9)
R017	Outer annular radius (m), ring 10:	3.917E+01	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	4.308E+01	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	4.700E+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	9.800E-01	0.000E+00	---	FRACA(4)
R017	Ring 5	1.000E+00	0.000E+00	---	FRACA(5)
R017	Ring 6	9.700E-01	0.000E+00	---	FRACA(6)
R017	Ring 7	1.000E+00	0.000E+00	---	FRACA(7)
R017	Ring 8	9.500E-01	0.000E+00	---	FRACA(8)
R017	Ring 9	6.300E-01	0.000E+00	---	FRACA(9)
R017	Ring 10	2.900E-01	0.000E+00	---	FRACA(10)
R017	Ring 11	1.200E-01	0.000E+00	---	FRACA(11)
R017	Ring 12	1.100E-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	---	LF15
R019	Livestock fodder intake for milk (kg/day)	6.320E+01	5.500E+01	---	LF16
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

Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
Area:	3900.00 square meters	Pa-231	2.500E-01
Thickness:	1.96 meters	Ra-226	4.600E-01
Cover Depth:	0.00 meters	Th-228	2.800E-01
		Th-230	1.140E+00
		Th-232	7.000E-02
		U-234	4.808E+02
		U-235	8.680E+00
		U-236	1.287E+01
		U-238	5.038E+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):	1.764E+02	1.764E+02	1.765E+02	1.774E+02	1.789E+02	1.783E+02	1.720E+02	1.639E+02
M(t):	7.057E+00	7.054E+00	7.058E+00	7.095E+00	7.157E+00	7.130E+00	6.882E+00	6.557E+00

Maximum TDOSE(t): 1.792E+02 mrem/yr at t = 49.54 ± 0.10 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 = 4.954E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.												
Pa-231	1.845E-01	0.0010	2.023E-02	0.0001	0.000E+00	0.0000	4.455E+00	0.0249	6.593E-01	0.0037	1.244E-02	0.0001	1.514E-01	0.0008
Ra-226	2.076E+00	0.0116	1.499E-04	0.0000	0.000E+00	0.0000	6.634E+00	0.0370	1.663E-01	0.0009	6.268E-01	0.0035	8.746E-02	0.0005
Th-228	1.589E-08	0.0000	1.603E-11	0.0000	0.000E+00	0.0000	4.067E-10	0.0000	1.043E-11	0.0000	2.000E-12	0.0000	8.333E-11	0.0000
Th-230	1.133E-01	0.0006	4.582E-03	0.0000	0.000E+00	0.0000	3.723E-01	0.0021	9.019E-03	0.0001	3.017E-02	0.0002	2.037E-02	0.0001
Th-232	4.663E-01	0.0026	1.715E-03	0.0000	0.000E+00	0.0000	5.698E-01	0.0032	1.117E-02	0.0001	7.034E-02	0.0004	9.524E-03	0.0001
U-234	8.979E-02	0.0005	7.549E-01	0.0042	0.000E+00	0.0000	4.372E+01	0.2439	1.647E+00	0.0092	1.208E+01	0.0674	3.593E+00	0.0200
U-235	2.661E+00	0.0148	1.320E-02	0.0001	0.000E+00	0.0000	8.939E-01	0.0050	5.197E-02	0.0003	2.063E-01	0.0012	6.566E-02	0.0004
U-236	1.144E-03	0.0000	1.912E-02	0.0001	0.000E+00	0.0000	1.112E+00	0.0062	4.190E-02	0.0002	3.073E-01	0.0017	9.136E-02	0.0005
U-238	3.157E+01	0.1761	7.318E-01	0.0041	0.000E+00	0.0000	4.501E+01	0.2511	1.696E+00	0.0095	1.244E+01	0.0694	3.699E+00	0.0206
Total	3.716E+01	0.2073	1.546E+00	0.0086	0.000E+00	0.0000	1.028E+02	0.5733	4.283E+00	0.0239	2.577E+01	0.1438	7.718E+00	0.0431

Summary : MTW Pond D Farmer - Deterministic Run - NO COVER

File : C:\RESRAD_FAMILY\RESRAD\6.5\USERFILES\MTW\MTW_POND_D_FARMER-DET_NC.RAD

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 4.954E+01 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.												
Pa-231	0.000E+00	0.0000	5.483E+00	0.0306										
Ra-226	0.000E+00	0.0000	9.591E+00	0.0535										
Th-228	0.000E+00	0.0000	1.641E-08	0.0000										
Th-230	0.000E+00	0.0000	5.498E-01	0.0031										
Th-232	0.000E+00	0.0000	1.129E+00	0.0063										
U-234	0.000E+00	0.0000	6.188E+01	0.3452										
U-235	0.000E+00	0.0000	3.892E+00	0.0217										
U-236	0.000E+00	0.0000	1.573E+00	0.0088										
U-238	0.000E+00	0.0000	9.514E+01	0.5308										
Total	0.000E+00	0.0000	1.792E+02	1.0000										

*Sum of all water independent and dependent pathways.

Summary : MTW Pond D Farmer - Deterministic Run - NO COVER

File : C:\RESRAD_FAMILY\RESRAD\6.5\USERFILES\MTW\MTW_POND_D_FARMER-DET_NC.RAD

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.												
Pa-231	2.307E-02	0.0001	4.271E-03	0.0000	0.000E+00	0.0000	3.548E+00	0.0201	6.656E-01	0.0038	3.702E-03	0.0000	7.413E-02	0.0004
Ra-226	2.123E+00	0.0120	5.075E-05	0.0000	0.000E+00	0.0000	3.312E+00	0.0188	6.539E-02	0.0004	4.344E-01	0.0025	1.804E-02	0.0001
Th-228	9.913E-01	0.0056	1.000E-03	0.0000	0.000E+00	0.0000	2.537E-02	0.0001	6.511E-04	0.0000	1.248E-04	0.0000	5.199E-03	0.0000
Th-230	1.721E-03	0.0000	4.582E-03	0.0000	0.000E+00	0.0000	8.513E-02	0.0005	2.168E-03	0.0000	6.023E-04	0.0000	1.711E-02	0.0001
Th-232	1.193E-02	0.0001	1.418E-03	0.0000	0.000E+00	0.0000	5.511E-02	0.0003	1.121E-03	0.0000	3.504E-03	0.0000	5.401E-03	0.0000
U-234	8.201E-02	0.0005	7.822E-01	0.0044	0.000E+00	0.0000	4.531E+01	0.2568	1.708E+00	0.0097	1.253E+01	0.0710	3.723E+00	0.0211
U-235	2.755E+00	0.0156	1.316E-02	0.0001	0.000E+00	0.0000	7.740E-01	0.0044	2.933E-02	0.0002	2.136E-01	0.0012	6.353E-02	0.0004
U-236	1.186E-03	0.0000	1.983E-02	0.0001	0.000E+00	0.0000	1.153E+00	0.0065	4.345E-02	0.0002	3.187E-01	0.0018	9.474E-02	0.0005
U-238	3.163E+01	0.1793	7.332E-01	0.0042	0.000E+00	0.0000	4.509E+01	0.2556	1.700E+00	0.0096	1.247E+01	0.0707	3.706E+00	0.0210
Total	3.762E+01	0.2133	1.560E+00	0.0088	0.000E+00	0.0000	9.935E+01	0.5631	4.215E+00	0.0239	2.597E+01	0.1472	7.707E+00	0.0437

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.												
Pa-231	0.000E+00	0.0000	4.319E+00	0.0245										
Ra-226	0.000E+00	0.0000	5.953E+00	0.0337										
Th-228	0.000E+00	0.0000	1.024E+00	0.0058										
Th-230	0.000E+00	0.0000	1.113E-01	0.0006										
Th-232	0.000E+00	0.0000	7.849E-02	0.0004										
U-234	0.000E+00	0.0000	6.413E+01	0.3635										
U-235	0.000E+00	0.0000	3.848E+00	0.0218										
U-236	0.000E+00	0.0000	1.631E+00	0.0092										
U-238	0.000E+00	0.0000	9.533E+01	0.5404										
Total	0.000E+00	0.0000	1.764E+02	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- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.												
Pa-231	2.951E-02	0.0002	4.909E-03	0.0000	0.000E+00	0.0000	3.586E+00	0.0203	6.658E-01	0.0038	4.056E-03	0.0000	7.723E-02	0.0004
Ra-226	2.122E+00	0.0120	5.469E-05	0.0000	0.000E+00	0.0000	3.447E+00	0.0195	6.953E-02	0.0004	4.424E-01	0.0025	2.079E-02	0.0001
Th-228	6.900E-01	0.0039	6.961E-04	0.0000	0.000E+00	0.0000	1.766E-02	0.0001	4.532E-04	0.0000	8.685E-05	0.0000	3.619E-03	0.0000
Th-230	3.999E-03	0.0000	4.582E-03	0.0000	0.000E+00	0.0000	8.874E-02	0.0005	2.240E-03	0.0000	1.066E-03	0.0000	1.713E-02	0.0001
Th-232	4.022E-02	0.0002	1.428E-03	0.0000	0.000E+00	0.0000	1.129E-01	0.0006	2.228E-03	0.0000	1.100E-02	0.0001	5.748E-03	0.0000
U-234	8.196E-02	0.0005	7.816E-01	0.0044	0.000E+00	0.0000	4.527E+01	0.2567	1.706E+00	0.0097	1.252E+01	0.0710	3.721E+00	0.0211
U-235	2.753E+00	0.0156	1.315E-02	0.0001	0.000E+00	0.0000	7.760E-01	0.0044	2.979E-02	0.0002	2.135E-01	0.0012	6.354E-02	0.0004
U-236	1.186E-03	0.0000	1.981E-02	0.0001	0.000E+00	0.0000	1.152E+00	0.0065	4.342E-02	0.0002	3.185E-01	0.0018	9.467E-02	0.0005
U-238	3.163E+01	0.1794	7.332E-01	0.0042	0.000E+00	0.0000	4.509E+01	0.2557	1.699E+00	0.0096	1.247E+01	0.0707	3.706E+00	0.0210
Total	3.735E+01	0.2118	1.559E+00	0.0088	0.000E+00	0.0000	9.955E+01	0.5644	4.219E+00	0.0239	2.597E+01	0.1473	7.709E+00	0.0437

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.												
Pa-231	0.000E+00	0.0000	4.367E+00	0.0248										
Ra-226	0.000E+00	0.0000	6.102E+00	0.0346										
Th-228	0.000E+00	0.0000	7.125E-01	0.0040										
Th-230	0.000E+00	0.0000	1.178E-01	0.0007										
Th-232	0.000E+00	0.0000	1.735E-01	0.0010										
U-234	0.000E+00	0.0000	6.408E+01	0.3633										
U-235	0.000E+00	0.0000	3.849E+00	0.0218										
U-236	0.000E+00	0.0000	1.629E+00	0.0092										
U-238	0.000E+00	0.0000	9.533E+01	0.5405										
Total	0.000E+00	0.0000	1.764E+02	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- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.												
Pa-231	4.180E-02	0.0002	6.125E-03	0.0000	0.000E+00	0.0000	3.656E+00	0.0207	6.656E-01	0.0038	4.721E-03	0.0000	8.314E-02	0.0005
Ra-226	2.120E+00	0.0120	6.221E-05	0.0000	0.000E+00	0.0000	3.700E+00	0.0210	7.719E-02	0.0004	4.573E-01	0.0026	2.604E-02	0.0001
Th-228	3.343E-01	0.0019	3.373E-04	0.0000	0.000E+00	0.0000	8.556E-03	0.0000	2.196E-04	0.0000	4.208E-05	0.0000	1.753E-03	0.0000
Th-230	8.554E-03	0.0000	4.582E-03	0.0000	0.000E+00	0.0000	9.641E-02	0.0005	2.397E-03	0.0000	2.032E-03	0.0000	1.718E-02	0.0001
Th-232	1.060E-01	0.0006	1.464E-03	0.0000	0.000E+00	0.0000	2.105E-01	0.0012	4.134E-03	0.0000	2.376E-02	0.0001	6.425E-03	0.0000
U-234	8.189E-02	0.0005	7.805E-01	0.0044	0.000E+00	0.0000	4.521E+01	0.2562	1.704E+00	0.0097	1.250E+01	0.0708	3.715E+00	0.0211
U-235	2.749E+00	0.0156	1.314E-02	0.0001	0.000E+00	0.0000	7.802E-01	0.0044	3.073E-02	0.0002	2.132E-01	0.0012	6.356E-02	0.0004
U-236	1.184E-03	0.0000	1.978E-02	0.0001	0.000E+00	0.0000	1.150E+00	0.0065	4.335E-02	0.0002	3.180E-01	0.0018	9.453E-02	0.0005
U-238	3.163E+01	0.1793	7.331E-01	0.0042	0.000E+00	0.0000	4.509E+01	0.2555	1.699E+00	0.0096	1.247E+01	0.0706	3.706E+00	0.0210
Total	3.707E+01	0.2101	1.559E+00	0.0088	0.000E+00	0.0000	9.990E+01	0.5661	4.227E+00	0.0240	2.598E+01	0.1472	7.713E+00	0.0437

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.												
Pa-231	0.000E+00	0.0000	4.458E+00	0.0253										
Ra-226	0.000E+00	0.0000	6.381E+00	0.0362										
Th-228	0.000E+00	0.0000	3.452E-01	0.0020										
Th-230	0.000E+00	0.0000	1.312E-01	0.0007										
Th-232	0.000E+00	0.0000	3.523E-01	0.0020										
U-234	0.000E+00	0.0000	6.399E+01	0.3626										
U-235	0.000E+00	0.0000	3.850E+00	0.0218										
U-236	0.000E+00	0.0000	1.627E+00	0.0092										
U-238	0.000E+00	0.0000	9.532E+01	0.5402										
Total	0.000E+00	0.0000	1.765E+02	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- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.												
Pa-231	7.905E-02	0.0004	9.811E-03	0.0001	0.000E+00	0.0000	3.870E+00	0.0218	6.648E-01	0.0037	6.738E-03	0.0000	1.011E-01	0.0006
Ra-226	2.114E+00	0.0119	8.504E-05	0.0000	0.000E+00	0.0000	4.468E+00	0.0252	1.004E-01	0.0006	5.022E-01	0.0028	4.200E-02	0.0002
Th-228	2.646E-02	0.0001	2.670E-05	0.0000	0.000E+00	0.0000	6.773E-04	0.0000	1.738E-05	0.0000	3.331E-06	0.0000	1.388E-04	0.0000
Th-230	2.446E-02	0.0001	4.582E-03	0.0000	0.000E+00	0.0000	1.272E-01	0.0007	3.067E-03	0.0000	5.643E-03	0.0000	1.744E-02	0.0001
Th-232	2.977E-01	0.0017	1.594E-03	0.0000	0.000E+00	0.0000	4.158E-01	0.0023	8.152E-03	0.0000	5.043E-02	0.0003	8.125E-03	0.0000
U-234	8.190E-02	0.0005	7.766E-01	0.0044	0.000E+00	0.0000	4.498E+01	0.2536	1.695E+00	0.0096	1.243E+01	0.0701	3.697E+00	0.0208
U-235	2.735E+00	0.0154	1.312E-02	0.0001	0.000E+00	0.0000	7.955E-01	0.0045	3.398E-02	0.0002	2.121E-01	0.0012	6.371E-02	0.0004
U-236	1.178E-03	0.0000	1.968E-02	0.0001	0.000E+00	0.0000	1.144E+00	0.0065	4.313E-02	0.0002	3.164E-01	0.0018	9.405E-02	0.0005
U-238	3.162E+01	0.1783	7.329E-01	0.0041	0.000E+00	0.0000	4.508E+01	0.2541	1.699E+00	0.0096	1.246E+01	0.0703	3.705E+00	0.0209
Total	3.698E+01	0.2085	1.558E+00	0.0088	0.000E+00	0.0000	1.009E+02	0.5687	4.248E+00	0.0239	2.599E+01	0.1465	7.728E+00	0.0436

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.												
Pa-231	0.000E+00	0.0000	4.731E+00	0.0267										
Ra-226	0.000E+00	0.0000	7.226E+00	0.0407										
Th-228	0.000E+00	0.0000	2.732E-02	0.0002										
Th-230	0.000E+00	0.0000	1.824E-01	0.0010										
Th-232	0.000E+00	0.0000	7.819E-01	0.0044										
U-234	0.000E+00	0.0000	6.366E+01	0.3589										
U-235	0.000E+00	0.0000	3.854E+00	0.0217										
U-236	0.000E+00	0.0000	1.619E+00	0.0091										
U-238	0.000E+00	0.0000	9.530E+01	0.5373										
Total	0.000E+00	0.0000	1.774E+02	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- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.												
Pa-231	1.488E-01	0.0008	1.671E-02	0.0001	0.000E+00	0.0000	4.263E+00	0.0238	6.623E-01	0.0037	1.051E-02	0.0001	1.345E-01	0.0008
Ra-226	2.095E+00	0.0117	1.280E-04	0.0000	0.000E+00	0.0000	5.906E+00	0.0330	1.441E-01	0.0008	5.856E-01	0.0033	7.204E-02	0.0004
Th-228	1.886E-05	0.0000	1.902E-08	0.0000	0.000E+00	0.0000	4.826E-07	0.0000	1.238E-08	0.0000	2.373E-09	0.0000	9.889E-08	0.0000
Th-230	6.962E-02	0.0004	4.582E-03	0.0000	0.000E+00	0.0000	2.401E-01	0.0013	5.741E-03	0.0000	1.742E-02	0.0001	1.869E-02	0.0001
Th-232	4.523E-01	0.0025	1.706E-03	0.0000	0.000E+00	0.0000	5.573E-01	0.0031	1.092E-02	0.0001	6.873E-02	0.0004	9.411E-03	0.0001
U-234	8.426E-02	0.0005	7.656E-01	0.0043	0.000E+00	0.0000	4.433E+01	0.2478	1.671E+00	0.0093	1.225E+01	0.0685	3.644E+00	0.0204
U-235	2.697E+00	0.0151	1.312E-02	0.0001	0.000E+00	0.0000	8.436E-01	0.0047	4.317E-02	0.0002	2.092E-01	0.0012	6.453E-02	0.0004
U-236	1.161E-03	0.0000	1.940E-02	0.0001	0.000E+00	0.0000	1.128E+00	0.0063	4.250E-02	0.0002	3.118E-01	0.0017	9.268E-02	0.0005
U-238	3.159E+01	0.1766	7.323E-01	0.0041	0.000E+00	0.0000	4.504E+01	0.2517	1.698E+00	0.0095	1.245E+01	0.0696	3.702E+00	0.0207
Total	3.714E+01	0.2076	1.554E+00	0.0087	0.000E+00	0.0000	1.023E+02	0.5718	4.277E+00	0.0239	2.591E+01	0.1448	7.737E+00	0.0432

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- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.												
Pa-231	0.000E+00	0.0000	5.235E+00	0.0293										
Ra-226	0.000E+00	0.0000	8.802E+00	0.0492										
Th-228	0.000E+00	0.0000	1.947E-05	0.0000										
Th-230	0.000E+00	0.0000	3.562E-01	0.0020										
Th-232	0.000E+00	0.0000	1.100E+00	0.0062										
U-234	0.000E+00	0.0000	6.275E+01	0.3507										
U-235	0.000E+00	0.0000	3.871E+00	0.0216										
U-236	0.000E+00	0.0000	1.595E+00	0.0089										
U-238	0.000E+00	0.0000	9.522E+01	0.5322										
Total	0.000E+00	0.0000	1.789E+02	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- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.												
Pa-231	2.155E-01	0.0012	2.328E-02	0.0001	0.000E+00	0.0000	4.593E+00	0.0258	6.510E-01	0.0037	1.409E-02	0.0001	1.656E-01	0.0009
Ra-226	2.029E+00	0.0114	1.680E-04	0.0000	0.000E+00	0.0000	7.213E+00	0.0405	1.846E-01	0.0010	6.560E-01	0.0037	1.005E-01	0.0006
Th-228	1.821E-16	0.0000	1.837E-19	0.0000	0.000E+00	0.0000	4.661E-18	0.0000	1.196E-19	0.0000	2.292E-20	0.0000	9.551E-19	0.0000
Th-230	2.243E-01	0.0013	4.585E-03	0.0000	0.000E+00	0.0000	7.519E-01	0.0042	1.866E-02	0.0001	6.516E-02	0.0004	2.553E-02	0.0001
Th-232	4.674E-01	0.0026	1.715E-03	0.0000	0.000E+00	0.0000	5.706E-01	0.0032	1.118E-02	0.0001	7.045E-02	0.0004	9.529E-03	0.0001
U-234	1.184E-01	0.0007	7.282E-01	0.0041	0.000E+00	0.0000	4.223E+01	0.2369	1.590E+00	0.0089	1.165E+01	0.0653	3.466E+00	0.0194
U-235	2.572E+00	0.0144	1.353E-02	0.0001	0.000E+00	0.0000	1.027E+00	0.0058	7.393E-02	0.0004	1.993E-01	0.0011	6.913E-02	0.0004
U-236	1.103E-03	0.0000	1.843E-02	0.0001	0.000E+00	0.0000	1.071E+00	0.0060	4.038E-02	0.0002	2.962E-01	0.0017	8.804E-02	0.0005
U-238	3.150E+01	0.1767	7.303E-01	0.0041	0.000E+00	0.0000	4.492E+01	0.2520	1.693E+00	0.0095	1.242E+01	0.0697	3.691E+00	0.0207
Total	3.713E+01	0.2083	1.520E+00	0.0085	0.000E+00	0.0000	1.024E+02	0.5743	4.262E+00	0.0239	2.536E+01	0.1423	7.616E+00	0.0427

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.												
Pa-231	0.000E+00	0.0000	5.663E+00	0.0318										
Ra-226	0.000E+00	0.0000	1.018E+01	0.0571										
Th-228	0.000E+00	0.0000	1.880E-16	0.0000										
Th-230	0.000E+00	0.0000	1.090E+00	0.0061										
Th-232	0.000E+00	0.0000	1.131E+00	0.0063										
U-234	0.000E+00	0.0000	5.977E+01	0.3353										
U-235	0.000E+00	0.0000	3.955E+00	0.0222										
U-236	0.000E+00	0.0000	1.515E+00	0.0085										
U-238	0.000E+00	0.0000	9.495E+01	0.5326										
Total	0.000E+00	0.0000	1.783E+02	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- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.												
Pa-231	2.125E-01	0.0012	2.288E-02	0.0001	0.000E+00	0.0000	4.404E+00	0.0256	6.177E-01	0.0036	1.380E-02	0.0001	1.610E-01	0.0009
Ra-226	1.851E+00	0.0108	1.586E-04	0.0000	0.000E+00	0.0000	6.761E+00	0.0393	1.738E-01	0.0010	6.092E-01	0.0035	9.540E-02	0.0006
Th-228	0.000E+00	0.0000												
Th-230	6.384E-01	0.0037	4.598E-03	0.0000	0.000E+00	0.0000	2.258E+00	0.0131	5.736E-02	0.0003	2.011E-01	0.0012	4.667E-02	0.0003
Th-232	4.659E-01	0.0027	1.710E-03	0.0000	0.000E+00	0.0000	5.689E-01	0.0033	1.115E-02	0.0001	7.023E-02	0.0004	9.499E-03	0.0001
U-234	4.126E-01	0.0024	6.315E-01	0.0037	0.000E+00	0.0000	3.751E+01	0.2181	1.399E+00	0.0081	1.014E+01	0.0590	3.016E+00	0.0175
U-235	2.251E+00	0.0131	1.488E-02	0.0001	0.000E+00	0.0000	1.504E+00	0.0087	1.505E-01	0.0009	1.741E-01	0.0010	8.220E-02	0.0005
U-236	9.534E-04	0.0000	1.591E-02	0.0001	0.000E+00	0.0000	9.253E-01	0.0054	3.487E-02	0.0002	2.558E-01	0.0015	7.604E-02	0.0004
U-238	3.123E+01	0.1816	7.245E-01	0.0042	0.000E+00	0.0000	4.456E+01	0.2590	1.679E+00	0.0098	1.232E+01	0.0716	3.662E+00	0.0213
Total	3.707E+01	0.2155	1.416E+00	0.0082	0.000E+00	0.0000	9.850E+01	0.5725	4.124E+00	0.0240	2.379E+01	0.1383	7.149E+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 = 3.000E+02 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.												
Pa-231	0.000E+00	0.0000	5.432E+00	0.0316										
Ra-226	0.000E+00	0.0000	9.490E+00	0.0552										
Th-228	0.000E+00	0.0000												
Th-230	0.000E+00	0.0000	3.206E+00	0.0186										
Th-232	0.000E+00	0.0000	1.127E+00	0.0066										
U-234	0.000E+00	0.0000	5.312E+01	0.3088										
U-235	0.000E+00	0.0000	4.176E+00	0.0243										
U-236	0.000E+00	0.0000	1.309E+00	0.0076										
U-238	0.000E+00	0.0000	9.418E+01	0.5474										
Total	0.000E+00	0.0000	1.720E+02	1.0000										

*Sum of all water independent and dependent pathways.

Summary : MTW Pond D Farmer - Deterministic Run - NO COVER

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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.												
Pa-231	1.766E-01	0.0011	1.902E-02	0.0001	0.000E+00	0.0000	3.661E+00	0.0223	5.135E-01	0.0031	1.147E-02	0.0001	1.338E-01	0.0008
Ra-226	1.342E+00	0.0082	1.150E-04	0.0000	0.000E+00	0.0000	4.902E+00	0.0299	1.261E-01	0.0008	4.417E-01	0.0027	6.918E-02	0.0004
Th-228	0.000E+00	0.0000												
Th-230	1.806E+00	0.0110	4.620E-03	0.0000	0.000E+00	0.0000	6.525E+00	0.0398	1.671E-01	0.0010	5.856E-01	0.0036	1.066E-01	0.0007
Th-232	4.608E-01	0.0028	1.691E-03	0.0000	0.000E+00	0.0000	5.626E-01	0.0034	1.103E-02	0.0001	6.946E-02	0.0004	9.395E-03	0.0001
U-234	2.956E+00	0.0180	3.863E-01	0.0024	0.000E+00	0.0000	3.213E+01	0.1960	1.084E+00	0.0066	6.925E+00	0.0422	1.967E+00	0.0120
U-235	1.425E+00	0.0087	1.725E-02	0.0001	0.000E+00	0.0000	2.505E+00	0.0153	3.152E-01	0.0019	1.093E-01	0.0007	1.079E-01	0.0007
U-236	5.731E-04	0.0000	9.528E-03	0.0001	0.000E+00	0.0000	5.540E-01	0.0034	2.088E-02	0.0001	1.532E-01	0.0009	4.553E-02	0.0003
U-238	3.032E+01	0.1850	7.043E-01	0.0043	0.000E+00	0.0000	4.332E+01	0.2643	1.633E+00	0.0100	1.198E+01	0.0730	3.560E+00	0.0217
Total	3.849E+01	0.2348	1.143E+00	0.0070	0.000E+00	0.0000	9.416E+01	0.5744	3.870E+00	0.0236	2.027E+01	0.1237	6.000E+00	0.0366

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.												
Pa-231	0.000E+00	0.0000	4.516E+00	0.0275										
Ra-226	0.000E+00	0.0000	6.882E+00	0.0420										
Th-228	0.000E+00	0.0000												
Th-230	0.000E+00	0.0000	9.195E+00	0.0561										
Th-232	0.000E+00	0.0000	1.115E+00	0.0068										
U-234	0.000E+00	0.0000	4.544E+01	0.2772										
U-235	0.000E+00	0.0000	4.480E+00	0.0273										
U-236	0.000E+00	0.0000	7.837E-01	0.0048										
U-238	0.000E+00	0.0000	9.152E+01	0.5583										
Total	0.000E+00	0.0000	1.639E+02	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	1.716E+01	1.715E+01	1.714E+01	1.711E+01	1.702E+01	1.671E+01	1.585E+01	1.318E+01	
Pa-231	Ac-227+D	1.000E+00	1.181E-01	3.158E-01	6.866E-01	1.811E+00	3.918E+00	5.940E+00	5.877E+00	4.886E+00	
Pa-231	ΣDSR(j)		1.728E+01	1.747E+01	1.783E+01	1.892E+01	2.094E+01	2.265E+01	2.173E+01	1.806E+01	
Ra-226+D	Ra-226+D	1.000E+00	1.275E+01	1.274E+01	1.273E+01	1.269E+01	1.257E+01	1.217E+01	1.111E+01	8.053E+00	
Ra-226+D	Pb-210+D	1.000E+00	1.957E-01	5.247E-01	1.142E+00	3.021E+00	6.564E+00	9.964E+00	9.525E+00	6.907E+00	
Ra-226+D	ΣDSR(j)		1.294E+01	1.326E+01	1.387E+01	1.571E+01	1.914E+01	2.214E+01	2.063E+01	1.496E+01	
Th-228+D	Th-228+D	1.000E+00	3.656E+00	2.545E+00	1.233E+00	9.759E-02	6.954E-05	6.716E-16	0.000E+00	0.000E+00	
Th-230	Th-230	1.000E+00	9.498E-02	9.498E-02	9.497E-02	9.495E-02	9.491E-02	9.474E-02	9.427E-02	9.265E-02	
Th-230	Ra-226+D	1.000E+00	2.636E-03	8.135E-03	1.917E-02	5.770E-02	1.671E-01	5.416E-01	1.544E+00	4.372E+00	
Th-230	Pb-210+D	1.000E+00	3.065E-05	1.882E-04	9.132E-04	7.330E-03	5.047E-02	3.199E-01	1.174E+00	3.602E+00	
Th-230	ΣDSR(j)		9.764E-02	1.033E-01	1.151E-01	1.600E-01	3.124E-01	9.562E-01	2.812E+00	8.066E+00	
Th-232	Th-232	1.000E+00	4.710E-01	4.710E-01	4.710E-01	4.710E-01	4.708E-01	4.703E-01	4.688E-01	4.637E-01	
Th-232	Ra-228+D	1.000E+00	6.193E-01	1.827E+00	3.856E+00	8.098E+00	1.101E+01	1.128E+01	1.125E+01	1.112E+01	
Th-232	Th-228+D	1.000E+00	3.090E-02	1.812E-01	7.048E-01	2.600E+00	4.241E+00	4.402E+00	4.388E+00	4.340E+00	
Th-232	ΣDSR(j)		1.121E+00	2.479E+00	5.032E+00	1.117E+01	1.572E+01	1.616E+01	1.610E+01	1.593E+01	
U-234	U-234	1.000E+00	1.334E-01	1.333E-01	1.331E-01	1.324E-01	1.305E-01	1.239E-01	1.069E-01	6.377E-02	
U-234	Th-230	1.000E+00	4.582E-07	1.318E-06	3.024E-06	8.977E-06	2.581E-05	8.275E-05	2.296E-04	5.966E-04	
U-234	Ra-226+D	1.000E+00	7.681E-09	5.604E-08	3.016E-07	2.717E-06	2.280E-05	2.409E-04	1.988E-03	1.674E-02	
U-234	Pb-210+D	1.000E+00	7.309E-11	9.528E-10	1.006E-08	2.394E-07	4.956E-06	1.143E-04	1.374E-03	1.342E-02	
U-234	ΣDSR(j)		1.334E-01	1.333E-01	1.331E-01	1.324E-01	1.305E-01	1.243E-01	1.105E-01	9.452E-02	
U-235+D	U-235+D	1.000E+00	4.432E-01	4.429E-01	4.422E-01	4.400E-01	4.336E-01	4.119E-01	3.557E-01	2.130E-01	
U-235+D	Pa-231	1.000E+00	1.712E-04	5.322E-04	1.257E-03	3.781E-03	1.090E-02	3.470E-02	9.400E-02	2.227E-01	
U-235+D	Ac-227+D	1.000E+00	9.093E-07	5.544E-06	2.682E-05	2.144E-04	1.463E-03	9.050E-03	3.141E-02	8.050E-02	
U-235+D	ΣDSR(j)		4.434E-01	4.434E-01	4.435E-01	4.440E-01	4.459E-01	4.556E-01	4.811E-01	5.162E-01	
U-236	U-236	1.000E+00	1.267E-01	1.266E-01	1.264E-01	1.258E-01	1.239E-01	1.178E-01	1.017E-01	6.089E-02	
U-236	Th-232	1.000E+00	1.246E-11	3.582E-11	8.221E-11	2.440E-10	7.017E-10	2.251E-09	6.253E-09	1.633E-08	
U-236	Ra-228+D	1.000E+00	9.913E-12	7.065E-11	3.548E-10	2.514E-09	1.236E-08	4.964E-08	1.463E-07	3.896E-07	
U-236	Th-228+D	1.000E+00	3.996E-13	5.155E-12	4.730E-11	6.381E-10	4.268E-09	1.882E-08	5.659E-08	1.517E-07	
U-236	ΣDSR(j)		1.267E-01	1.266E-01	1.264E-01	1.258E-01	1.239E-01	1.178E-01	1.017E-01	6.089E-02	
U-238	U-238	5.400E-05	6.485E-06	6.485E-06	6.485E-06	6.483E-06	6.477E-06	6.458E-06	6.403E-06	6.216E-06	
U-238+D	U-238+D	9.999E-01	1.892E-01	1.892E-01	1.892E-01	1.891E-01	1.890E-01	1.884E-01	1.868E-01	1.813E-01	
U-238+D	U-234	9.999E-01	1.891E-07	5.670E-07	1.322E-06	3.955E-06	1.140E-05	3.656E-05	1.013E-04	2.613E-04	
U-238+D	Th-230	9.999E-01	4.525E-13	2.978E-12	1.529E-11	1.344E-10	1.121E-09	1.193E-08	1.011E-07	9.399E-07	
U-238+D	Ra-226+D	9.999E-01	5.316E-15	8.389E-14	1.004E-12	2.696E-11	6.585E-10	2.308E-08	5.800E-07	1.730E-05	
U-238+D	Pb-210+D	9.999E-01	4.343E-17	1.163E-15	2.621E-14	1.833E-12	1.124E-10	9.184E-09	3.661E-07	1.342E-05	
U-238+D	ΣDSR(j)		1.892E-01	1.892E-01	1.892E-01	1.891E-01	1.890E-01	1.884E-01	1.869E-01	1.816E-01	

The DSR includes contributions from associated (half-life ≤ 180 days) daughters.

Summary : MTW Pond D Farmer - Deterministic Run - NO COVER

File : C:\RESRAD_FAMILY\RESRAD\6.5\USERFILES\MTW\MTW_POND_D_FARMER-DET_NC.RAD

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		1.447E+00	1.431E+00	1.402E+00	1.321E+00	1.194E+00	1.104E+00	1.151E+00	1.384E+00
Ra-226		1.932E+00	1.885E+00	1.802E+00	1.591E+00	1.306E+00	1.129E+00	1.212E+00	1.671E+00
Th-228		6.839E+00	9.825E+00	2.028E+01	2.562E+02	3.595E+05	*8.195E+14	*8.195E+14	*8.195E+14
Th-230		2.560E+02	2.420E+02	2.173E+02	1.563E+02	8.001E+01	2.614E+01	8.889E+00	3.099E+00
Th-232		2.230E+01	1.009E+01	4.968E+00	2.238E+00	1.590E+00	1.547E+00	1.552E+00	1.570E+00
U-234		1.874E+02	1.876E+02	1.878E+02	1.888E+02	1.916E+02	2.011E+02	2.263E+02	2.645E+02
U-235		5.639E+01	5.638E+01	5.637E+01	5.631E+01	5.606E+01	5.487E+01	5.196E+01	4.843E+01
U-236		1.973E+02	1.975E+02	1.977E+02	1.988E+02	2.017E+02	2.123E+02	2.458E+02	4.106E+02
U-238		1.321E+02	1.321E+02	1.321E+02	1.322E+02	1.323E+02	1.327E+02	1.337E+02	1.376E+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 = 49.54 ± 0.10 years

Nuclide	Initial	tmin	DSR(i,tmin)	G(i,tmin)	DSR(i,tmax)	G(i,tmax)
(i)	(pCi/g)	(years)		(pCi/g)		(pCi/g)
Pa-231	2.500E-01	109.6 ± 0.2	2.266E+01	1.103E+00	2.193E+01	1.140E+00
Ra-226	4.600E-01	111.6 ± 0.2	2.216E+01	1.128E+00	2.085E+01	1.199E+00
Th-228	2.800E-01	0.000E+00	3.656E+00	6.839E+00	5.859E-08	4.267E+08
Th-230	1.140E+00	1.000E+03	8.066E+00	3.099E+00	4.823E-01	5.184E+01
Th-232	7.000E-02	74.4 ± 0.1	1.616E+01	1.547E+00	1.613E+01	1.550E+00
U-234	4.808E+02	0.000E+00	1.334E-01	1.874E+02	1.287E-01	1.942E+02
U-235	8.680E+00	1.000E+03	5.162E-01	4.843E+01	4.484E-01	5.575E+01
U-236	1.287E+01	0.000E+00	1.267E-01	1.973E+02	1.222E-01	2.046E+02
U-238	5.038E+02	0.000E+00	1.892E-01	1.321E+02	1.888E-01	1.324E+02

Summary : MTW Pond D Farmer - Deterministic Run - NO COVER

File : C:\RESRAD_FAMILY\RESRAD\6.5\USERFILES\MTW\MTW_POND_D_FARMER-DET_NC.RAD

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

Nuclide (j)	Parent (i)	THF(i)	DOSE(j,t), mrem/yr							
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Pa-231	Pa-231	1.000E+00	4.290E+00	4.288E+00	4.286E+00	4.278E+00	4.256E+00	4.178E+00	3.963E+00	3.294E+00
Pa-231	U-235	1.000E+00	1.486E-03	4.620E-03	1.091E-02	3.282E-02	9.457E-02	3.012E-01	8.159E-01	1.933E+00
Pa-231	ΣDOSE (j)		4.291E+00	4.293E+00	4.297E+00	4.311E+00	4.350E+00	4.479E+00	4.779E+00	5.227E+00
Ac-227	Pa-231	1.000E+00	2.953E-02	7.896E-02	1.716E-01	4.528E-01	9.796E-01	1.485E+00	1.469E+00	1.221E+00
Ac-227	U-235	1.000E+00	7.893E-06	4.812E-05	2.328E-04	1.861E-03	1.270E-02	7.856E-02	2.726E-01	6.987E-01
Ac-227	ΣDOSE (j)		2.954E-02	7.901E-02	1.719E-01	4.546E-01	9.923E-01	1.564E+00	1.742E+00	1.920E+00
Ra-226	Ra-226	1.000E+00	5.863E+00	5.860E+00	5.855E+00	5.836E+00	5.783E+00	5.600E+00	5.109E+00	3.704E+00
Ra-226	Th-230	1.000E+00	3.005E-03	9.274E-03	2.185E-02	6.578E-02	1.905E-01	6.175E-01	1.760E+00	4.984E+00
Ra-226	U-234	1.000E+00	3.693E-06	2.694E-05	1.450E-04	1.306E-03	1.096E-02	1.158E-01	9.557E-01	8.046E+00
Ra-226	U-238	9.999E-01	2.678E-12	4.227E-11	5.058E-10	1.358E-08	3.318E-07	1.163E-05	2.922E-04	8.715E-03
Ra-226	ΣDOSE (j)		5.866E+00	5.870E+00	5.877E+00	5.903E+00	5.984E+00	6.333E+00	7.825E+00	1.674E+01
Pb-210	Ra-226	1.000E+00	9.002E-02	2.414E-01	5.255E-01	1.390E+00	3.019E+00	4.584E+00	4.381E+00	3.177E+00
Pb-210	Th-230	1.000E+00	3.495E-05	2.146E-04	1.041E-03	8.357E-03	5.753E-02	3.647E-01	1.338E+00	4.106E+00
Pb-210	U-234	1.000E+00	3.514E-08	4.581E-07	4.836E-06	1.151E-04	2.383E-03	5.496E-02	6.607E-01	6.454E+00
Pb-210	U-238	9.999E-01	2.188E-14	5.857E-13	1.321E-11	9.233E-10	5.665E-08	4.627E-06	1.844E-04	6.761E-03
Pb-210	ΣDOSE (j)		9.005E-02	2.416E-01	5.266E-01	1.398E+00	3.079E+00	5.003E+00	6.381E+00	1.374E+01
Th-228	Th-228	1.000E+00	1.024E+00	7.125E-01	3.452E-01	2.732E-02	1.947E-05	1.880E-16	0.000E+00	0.000E+00
Th-228	Th-232	1.000E+00	2.163E-03	1.268E-02	4.933E-02	1.820E-01	2.968E-01	3.082E-01	3.072E-01	3.038E-01
Th-228	U-236	1.000E+00	5.142E-12	6.635E-11	6.088E-10	8.213E-09	5.493E-08	2.422E-07	7.283E-07	1.953E-06
Th-228	ΣDOSE (j)		1.026E+00	7.252E-01	3.945E-01	2.093E-01	2.969E-01	3.082E-01	3.072E-01	3.038E-01
Th-230	Th-230	1.000E+00	1.083E-01	1.083E-01	1.083E-01	1.082E-01	1.082E-01	1.080E-01	1.075E-01	1.056E-01
Th-230	U-234	1.000E+00	2.203E-04	6.336E-04	1.454E-03	4.316E-03	1.241E-02	3.978E-02	1.104E-01	2.868E-01
Th-230	U-238	9.999E-01	2.280E-10	1.501E-09	7.703E-09	6.772E-08	5.650E-07	6.009E-06	5.094E-05	4.736E-04
Th-230	ΣDOSE (j)		1.085E-01	1.089E-01	1.097E-01	1.126E-01	1.206E-01	1.478E-01	2.179E-01	3.929E-01
Th-232	Th-232	1.000E+00	3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.296E-02	3.292E-02	3.282E-02	3.246E-02
Th-232	U-236	1.000E+00	1.603E-10	4.610E-10	1.058E-09	3.141E-09	9.031E-09	2.897E-08	8.048E-08	2.102E-07
Th-232	ΣDOSE (j)		3.297E-02	3.297E-02	3.297E-02	3.297E-02	3.296E-02	3.292E-02	3.282E-02	3.246E-02
Ra-228	Th-232	1.000E+00	4.335E-02	1.279E-01	2.699E-01	5.669E-01	7.706E-01	7.898E-01	7.873E-01	7.787E-01
Ra-228	U-236	1.000E+00	1.276E-10	9.093E-10	4.566E-09	3.236E-08	1.591E-07	6.388E-07	1.882E-06	5.014E-06
Ra-228	ΣDOSE (j)		4.335E-02	1.279E-01	2.699E-01	5.669E-01	7.706E-01	7.898E-01	7.873E-01	7.787E-01
U-234	U-234	1.000E+00	6.413E+01	6.408E+01	6.398E+01	6.365E+01	6.272E+01	5.956E+01	5.139E+01	3.066E+01
U-234	U-238	9.999E-01	9.526E-05	2.857E-04	6.661E-04	1.993E-03	5.744E-03	1.842E-02	5.102E-02	1.317E-01
U-234	ΣDOSE (j)		6.413E+01	6.408E+01	6.398E+01	6.366E+01	6.273E+01	5.958E+01	5.144E+01	3.079E+01
U-235	U-235	1.000E+00	3.847E+00	3.844E+00	3.839E+00	3.819E+00	3.763E+00	3.575E+00	3.088E+00	1.849E+00
U-236	U-236	1.000E+00	1.631E+00	1.629E+00	1.627E+00	1.619E+00	1.595E+00	1.515E+00	1.309E+00	7.837E-01
U-238	U-238	5.400E-05	3.268E-03	3.267E-03	3.267E-03	3.266E-03	3.263E-03	3.254E-03	3.226E-03	3.132E-03
U-238	U-238	9.999E-01	9.533E+01	9.533E+01	9.532E+01	9.529E+01	9.521E+01	9.493E+01	9.412E+01	9.137E+01
U-238	ΣDOSE (j)		9.533E+01	9.533E+01	9.532E+01	9.529E+01	9.521E+01	9.493E+01	9.413E+01	9.137E+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	2.500E-01	2.499E-01	2.498E-01	2.493E-01	2.480E-01	2.435E-01	2.310E-01	1.920E-01
Pa-231	U-235	1.000E+00	0.000E+00	1.836E-04	5.501E-04	1.827E-03	5.428E-03	1.747E-02	4.748E-02	1.126E-01
Pa-231	ΣS(j):		2.500E-01	2.501E-01	2.504E-01	2.512E-01	2.535E-01	2.610E-01	2.785E-01	3.046E-01
Ac-227	Pa-231	1.000E+00	0.000E+00	7.832E-03	2.276E-02	6.803E-02	1.529E-01	2.344E-01	2.321E-01	1.929E-01
Ac-227	U-235	1.000E+00	0.000E+00	2.891E-06	2.546E-05	2.626E-04	1.938E-03	1.231E-02	4.297E-02	1.103E-01
Ac-227	ΣS(j):		0.000E+00	7.835E-03	2.278E-02	6.830E-02	1.548E-01	2.467E-01	2.750E-01	3.032E-01
Ra-226	Ra-226	1.000E+00	4.600E-01	4.598E-01	4.594E-01	4.579E-01	4.537E-01	4.394E-01	4.008E-01	2.906E-01
Ra-226	Th-230	1.000E+00	0.000E+00	4.937E-04	1.481E-03	4.927E-03	1.471E-02	4.821E-02	1.379E-01	3.908E-01
Ra-226	U-234	1.000E+00	0.000E+00	9.371E-07	8.427E-06	9.337E-05	8.335E-04	9.001E-03	7.474E-02	6.306E-01
Ra-226	U-238	9.999E-01	0.000E+00	9.280E-13	2.504E-11	9.254E-10	2.483E-08	8.995E-07	2.282E-05	6.828E-04
Ra-226	ΣS(j):		4.600E-01	4.603E-01	4.609E-01	4.629E-01	4.692E-01	4.966E-01	6.135E-01	1.313E+00
Pb-210	Ra-226	1.000E+00	0.000E+00	1.407E-02	4.092E-02	1.226E-01	2.766E-01	4.246E-01	4.063E-01	2.946E-01
Pb-210	Th-230	1.000E+00	0.000E+00	7.595E-06	6.695E-05	6.926E-04	5.152E-03	3.353E-02	1.238E-01	3.804E-01
Pb-210	U-234	1.000E+00	0.000E+00	9.635E-09	2.560E-07	8.974E-06	2.089E-04	5.019E-03	6.099E-02	5.976E-01
Pb-210	U-238	9.999E-01	0.000E+00	7.167E-15	5.731E-13	6.770E-11	4.863E-09	4.198E-07	1.699E-05	6.257E-04
Pb-210	ΣS(j):		0.000E+00	1.408E-02	4.099E-02	1.233E-01	2.820E-01	4.632E-01	5.911E-01	1.273E+00
Th-228	Th-228	1.000E+00	2.800E-01	1.949E-01	9.442E-02	7.474E-03	5.326E-06	5.144E-17	0.000E+00	0.000E+00
Th-228	Th-232	1.000E+00	0.000E+00	1.305E-03	8.702E-03	3.950E-02	6.714E-02	6.988E-02	6.966E-02	6.890E-02
Th-228	U-236	1.000E+00	0.000E+00	4.104E-12	8.848E-11	1.667E-09	1.214E-08	5.460E-08	1.649E-07	4.427E-07
Th-228	ΣS(j):		2.800E-01	1.962E-01	1.031E-01	4.698E-02	6.715E-02	6.988E-02	6.966E-02	6.890E-02
Th-230	Th-230	1.000E+00	1.140E+00	1.140E+00	1.140E+00	1.140E+00	1.139E+00	1.137E+00	1.132E+00	1.112E+00
Th-230	U-234	1.000E+00	0.000E+00	4.326E-03	1.297E-02	4.311E-02	1.284E-01	4.167E-01	1.160E+00	3.019E+00
Th-230	U-238	9.999E-01	0.000E+00	6.427E-09	5.781E-08	6.411E-07	5.739E-06	6.259E-05	5.345E-04	4.981E-03
Th-230	ΣS(j):		1.140E+00	1.144E+00	1.153E+00	1.183E+00	1.268E+00	1.554E+00	2.292E+00	4.136E+00
Th-232	Th-232	1.000E+00	7.000E-02	7.000E-02	7.000E-02	6.999E-02	6.997E-02	6.989E-02	6.967E-02	6.891E-02
Th-232	U-236	1.000E+00	0.000E+00	6.347E-10	1.903E-09	6.326E-09	1.884E-08	6.117E-08	1.706E-07	4.461E-07
Th-232	ΣS(j):		7.000E-02	7.000E-02	7.000E-02	6.999E-02	6.997E-02	6.989E-02	6.967E-02	6.891E-02
Ra-228	Th-232	1.000E+00	0.000E+00	7.949E-03	2.124E-02	4.902E-02	6.808E-02	6.988E-02	6.966E-02	6.890E-02
Ra-228	U-236	1.000E+00	0.000E+00	3.677E-11	3.062E-10	2.653E-09	1.379E-08	5.625E-08	1.663E-07	4.435E-07
Ra-228	ΣS(j):		0.000E+00	7.949E-03	2.124E-02	4.902E-02	6.808E-02	6.988E-02	6.966E-02	6.890E-02
U-234	U-234	1.000E+00	4.808E+02	4.804E+02	4.797E+02	4.772E+02	4.703E+02	4.466E+02	3.853E+02	2.299E+02
U-234	U-238	9.999E-01	0.000E+00	1.428E-03	4.280E-03	1.423E-02	4.235E-02	1.374E-01	3.818E-01	9.864E-01
U-234	ΣS(j):		4.808E+02	4.804E+02	4.797E+02	4.773E+02	4.703E+02	4.467E+02	3.857E+02	2.308E+02
U-235	U-235	1.000E+00	8.680E+00	8.674E+00	8.661E+00	8.617E+00	8.491E+00	8.067E+00	6.967E+00	4.171E+00
U-236	U-236	1.000E+00	1.287E+01	1.286E+01	1.284E+01	1.278E+01	1.259E+01	1.196E+01	1.033E+01	6.185E+00
U-238	U-238	5.400E-05	2.721E-02	2.721E-02	2.720E-02	2.720E-02	2.717E-02	2.709E-02	2.686E-02	2.608E-02
U-238	U-238	9.999E-01	5.038E+02	5.038E+02	5.037E+02	5.036E+02	5.032E+02	5.017E+02	4.974E+02	4.829E+02
U-238	ΣS(j):		5.038E+02	5.038E+02	5.038E+02	5.036E+02	5.032E+02	5.017E+02	4.975E+02	4.829E+02

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

