

Summary : RESRAD Default Parameters

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## Dose Conversion Factor (and Related) Parameter Summary

Dose Library: FCS FGR11 Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
A-1	DCF's for external ground radiation, (mrem/yr)/(pCi/g)			
A-1	Ac-225 (Source: FGR 12)	6.371E-02	6.371E-02	DCF1 ( 1)
A-1	Ac-227 (Source: FGR 12)	4.951E-04	4.951E-04	DCF1 ( 2)
A-1	Ac-228 (Source: FGR 12)	5.978E+00	5.978E+00	DCF1 ( 3)
A-1	Am-241 (Source: FGR 12)	4.372E-02	4.372E-02	DCF1 ( 4)
A-1	Am-243 (Source: FGR 12)	1.420E-01	1.420E-01	DCF1 ( 5)
A-1	At-217 (Source: FGR 12)	1.773E-03	1.773E-03	DCF1 ( 6)
A-1	At-218 (Source: FGR 12)	5.847E-03	5.847E-03	DCF1 ( 7)
A-1	Ba-137m (Source: FGR 12)	3.606E+00	3.606E+00	DCF1 ( 8)
A-1	Bi-210 (Source: FGR 12)	3.606E-03	3.606E-03	DCF1 ( 9)
A-1	Bi-211 (Source: FGR 12)	2.559E-01	2.559E-01	DCF1 ( 10)
A-1	Bi-212 (Source: FGR 12)	1.171E+00	1.171E+00	DCF1 ( 11)
A-1	Bi-213 (Source: FGR 12)	7.660E-01	7.660E-01	DCF1 ( 12)
A-1	Bi-214 (Source: FGR 12)	9.808E+00	9.808E+00	DCF1 ( 13)
A-1	C-14 (Source: FGR 12)	1.345E-05	1.345E-05	DCF1 ( 14)
A-1	Ce-144 (Source: FGR 12)	7.174E-02	7.174E-02	DCF1 ( 15)
A-1	Cm-243 (Source: FGR 12)	5.829E-01	5.829E-01	DCF1 ( 16)
A-1	Cm-244 (Source: FGR 12)	1.259E-04	1.259E-04	DCF1 ( 17)
A-1	Co-58 (Source: FGR 12)	5.960E+00	5.960E+00	DCF1 ( 18)
A-1	Co-60 (Source: FGR 12)	1.622E+01	1.622E+01	DCF1 ( 19)
A-1	Cs-134 (Source: FGR 12)	9.472E+00	9.472E+00	DCF1 ( 20)
A-1	Cs-137 (Source: FGR 12)	7.510E-04	7.510E-04	DCF1 ( 21)
A-1	Eu-152 (Source: FGR 12)	7.006E+00	7.006E+00	DCF1 ( 22)
A-1	Eu-154 (Source: FGR 12)	7.678E+00	7.678E+00	DCF1 ( 23)
A-1	Eu-155 (Source: FGR 12)	1.822E-01	1.822E-01	DCF1 ( 24)
A-1	Fe-55 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 25)
A-1	Fr-221 (Source: FGR 12)	1.536E-01	1.536E-01	DCF1 ( 26)
A-1	Fr-223 (Source: FGR 12)	1.980E-01	1.980E-01	DCF1 ( 27)
A-1	Gd-152 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 28)
A-1	H-3 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 29)
A-1	Ni-59 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 30)
A-1	Ni-63 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 31)
A-1	Np-237 (Source: FGR 12)	7.790E-02	7.790E-02	DCF1 ( 32)
A-1	Np-239 (Source: FGR 12)	7.529E-01	7.529E-01	DCF1 ( 33)
A-1	Pa-231 (Source: FGR 12)	1.906E-01	1.906E-01	DCF1 ( 34)
A-1	Pa-233 (Source: FGR 12)	1.020E+00	1.020E+00	DCF1 ( 35)
A-1	Pb-209 (Source: FGR 12)	7.734E-04	7.734E-04	DCF1 ( 36)
A-1	Pb-210 (Source: FGR 12)	2.447E-03	2.447E-03	DCF1 ( 37)
A-1	Pb-211 (Source: FGR 12)	3.064E-01	3.064E-01	DCF1 ( 38)
A-1	Pb-212 (Source: FGR 12)	7.043E-01	7.043E-01	DCF1 ( 39)
A-1	Pb-214 (Source: FGR 12)	1.341E+00	1.341E+00	DCF1 ( 40)
A-1	Po-210 (Source: FGR 12)	5.231E-05	5.231E-05	DCF1 ( 41)
A-1	Po-211 (Source: FGR 12)	4.764E-02	4.764E-02	DCF1 ( 42)
A-1	Po-212 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 43)
A-1	Po-213 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 44)
A-1	Po-214 (Source: FGR 12)	5.138E-04	5.138E-04	DCF1 ( 45)
A-1	Po-215 (Source: FGR 12)	1.016E-03	1.016E-03	DCF1 ( 46)
A-1	Po-216 (Source: FGR 12)	1.042E-04	1.042E-04	DCF1 ( 47)
A-1	Po-218 (Source: FGR 12)	5.642E-05	5.642E-05	DCF1 ( 48)
A-1	Pr-144 (Source: FGR 12)	2.522E-01	2.522E-01	DCF1 ( 49)

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

Dose Library: FCS FGR11 Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
A-1	Pr-144m (Source: FGR 12)	1.437E-02	1.437E-02	DCF1 ( 50)
A-1	Pu-238 (Source: FGR 12)	1.513E-04	1.513E-04	DCF1 ( 51)
A-1	Pu-239 (Source: FGR 12)	2.952E-04	2.952E-04	DCF1 ( 52)
A-1	Pu-240 (Source: FGR 12)	1.467E-04	1.467E-04	DCF1 ( 53)
A-1	Pu-241 (Source: FGR 12)	5.904E-06	5.904E-06	DCF1 ( 54)
A-1	Ra-223 (Source: FGR 12)	6.034E-01	6.034E-01	DCF1 ( 55)
A-1	Ra-224 (Source: FGR 12)	5.119E-02	5.119E-02	DCF1 ( 56)
A-1	Ra-225 (Source: FGR 12)	1.102E-02	1.102E-02	DCF1 ( 57)
A-1	Ra-226 (Source: FGR 12)	3.176E-02	3.176E-02	DCF1 ( 58)
A-1	Ra-228 (Source: FGR 12)	0.000E+00	0.000E+00	DCF1 ( 59)
A-1	Rn-219 (Source: FGR 12)	3.083E-01	3.083E-01	DCF1 ( 60)
A-1	Rn-220 (Source: FGR 12)	2.298E-03	2.298E-03	DCF1 ( 61)
A-1	Rn-222 (Source: FGR 12)	2.354E-03	2.354E-03	DCF1 ( 62)
A-1	Sb-125 (Source: FGR 12)	2.447E+00	2.447E+00	DCF1 ( 63)
A-1	Sr-90 (Source: FGR 12)	7.043E-04	7.043E-04	DCF1 ( 64)
A-1	Tc-99 (Source: FGR 12)	1.255E-04	1.255E-04	DCF1 ( 65)
A-1	Te-125m (Source: FGR 12)	1.515E-02	1.515E-02	DCF1 ( 66)
A-1	Th-227 (Source: FGR 12)	5.212E-01	5.212E-01	DCF1 ( 67)
A-1	Th-228 (Source: FGR 12)	7.940E-03	7.940E-03	DCF1 ( 68)
A-1	Th-229 (Source: FGR 12)	3.213E-01	3.213E-01	DCF1 ( 69)
A-1	Th-230 (Source: FGR 12)	1.209E-03	1.209E-03	DCF1 ( 70)
A-1	Th-231 (Source: FGR 12)	3.643E-02	3.643E-02	DCF1 ( 71)
A-1	Th-232 (Source: FGR 12)	5.212E-04	5.212E-04	DCF1 ( 72)
A-1	Tl-207 (Source: FGR 12)	1.980E-02	1.980E-02	DCF1 ( 73)
A-1	Tl-208 (Source: FGR 12)	2.298E+01	2.298E+01	DCF1 ( 74)
A-1	Tl-209 (Source: FGR 12)	1.293E+01	1.293E+01	DCF1 ( 75)
A-1	Tl-210 (Source: no data)	0.000E+00	-2.000E+00	DCF1 ( 76)
A-1	U-233 (Source: FGR 12)	1.397E-03	1.397E-03	DCF1 ( 77)
A-1	U-234 (Source: FGR 12)	4.017E-04	4.017E-04	DCF1 ( 78)
A-1	U-235 (Source: FGR 12)	7.211E-01	7.211E-01	DCF1 ( 79)
A-1	U-236 (Source: FGR 12)	2.148E-04	2.148E-04	DCF1 ( 80)
A-1	U-237 (Source: FGR 12)	5.306E-01	5.306E-01	DCF1 ( 81)
A-1	Y-90 (Source: FGR 12)	2.391E-02	2.391E-02	DCF1 ( 82)
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	Ac-227+D	6.724E+00	6.700E+00	DCF2 ( 1)
B-1	Am-241	4.440E-01	4.440E-01	DCF2 ( 2)
B-1	Am-243+D	4.400E-01	4.400E-01	DCF2 ( 3)
B-1	C-14(p) (Class: ORGANIC)	2.090E-06	2.090E-06	DCF2 ( 4)
B-1	C-14(g) (Class: CO2)	2.350E-08	2.350E-08	C14InhDCF
B-1	Ce-144+D	3.740E-04	3.740E-04	DCF2 ( 5)
B-1	Cm-243	3.070E-01	3.070E-01	DCF2 ( 6)
B-1	Cm-244	2.480E-01	2.480E-01	DCF2 ( 8)
B-1	Co-58	1.090E-05	1.090E-05	DCF2 ( 11)
B-1	Co-60	2.190E-04	2.190E-04	DCF2 ( 12)
B-1	Cs-134	4.620E-05	4.620E-05	DCF2 ( 13)
B-1	Cs-137+D	3.190E-05	3.190E-05	DCF2 ( 14)
B-1	Eu-152	2.210E-04	2.210E-04	DCF2 ( 15)
B-1	Eu-154	2.860E-04	2.860E-04	DCF2 ( 17)
B-1	Eu-155	4.140E-05	4.140E-05	DCF2 ( 18)

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

Dose Library: FCS FGR11 Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
B-1	Fe-55	2.690E-06	2.690E-06	DCF2 ( 19)
B-1	Gd-152	2.430E-01	2.430E-01	DCF2 ( 20)
B-1	H-3	6.400E-08	6.400E-08	DCF2 ( 21)
B-1	Ni-59	2.700E-06	2.700E-06	DCF2 ( 22)
B-1	Ni-63	6.290E-06	6.290E-06	DCF2 ( 23)
B-1	Np-237+D	5.400E-01	5.400E-01	DCF2 ( 24)
B-1	Pa-231	1.280E+00	1.280E+00	DCF2 ( 25)
B-1	Pb-210+D	1.380E-02	1.360E-02	DCF2 ( 26)
B-1	Po-210	9.400E-03	9.400E-03	DCF2 ( 27)
B-1	Pu-238	3.920E-01	3.920E-01	DCF2 ( 28)
B-1	Pu-239	4.290E-01	4.290E-01	DCF2 ( 30)
B-1	Pu-240	4.290E-01	4.290E-01	DCF2 ( 31)
B-1	Pu-241	8.250E-03	8.250E-03	DCF2 ( 33)
B-1	Pu-241+D	8.254E-03	8.250E-03	DCF2 ( 34)
B-1	Ra-226+D	8.594E-03	8.580E-03	DCF2 ( 35)
B-1	Ra-228+D	5.078E-03	4.770E-03	DCF2 ( 36)
B-1	Sb-125	1.220E-05	1.220E-05	DCF2 ( 37)
B-1	Sr-90+D	1.308E-03	1.300E-03	DCF2 ( 39)
B-1	Tc-99	8.320E-06	8.320E-06	DCF2 ( 40)
B-1	Te-125m	7.290E-06	7.290E-06	DCF2 ( 41)
B-1	Th-228+D	3.454E-01	3.420E-01	DCF2 ( 42)
B-1	Th-229+D	2.169E+00	2.150E+00	DCF2 ( 43)
B-1	Th-230	3.260E-01	3.260E-01	DCF2 ( 44)
B-1	Th-232	1.640E+00	1.640E+00	DCF2 ( 45)
B-1	U-233	1.350E-01	1.350E-01	DCF2 ( 46)
B-1	U-234	1.320E-01	1.320E-01	DCF2 ( 47)
B-1	U-235+D	1.230E-01	1.230E-01	DCF2 ( 48)
B-1	U-236	1.250E-01	1.250E-01	DCF2 ( 49)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	Ac-227+D	1.480E-02	1.410E-02	DCF3 ( 1)
D-1	Am-241	3.640E-03	3.640E-03	DCF3 ( 2)
D-1	Am-243+D	3.623E-03	3.620E-03	DCF3 ( 3)
D-1	C-14	2.090E-06	2.090E-06	DCF3 ( 4)
D-1	Ce-144+D	2.112E-05	2.100E-05	DCF3 ( 5)
D-1	Cm-243	2.510E-03	2.510E-03	DCF3 ( 6)
D-1	Cm-244	2.020E-03	2.020E-03	DCF3 ( 8)
D-1	Co-58	3.580E-06	3.580E-06	DCF3 ( 11)
D-1	Co-60	2.690E-05	2.690E-05	DCF3 ( 12)
D-1	Cs-134	7.330E-05	7.330E-05	DCF3 ( 13)
D-1	Cs-137+D	5.000E-05	5.000E-05	DCF3 ( 14)
D-1	Eu-152	6.480E-06	6.480E-06	DCF3 ( 15)
D-1	Eu-154	9.550E-06	9.550E-06	DCF3 ( 17)
D-1	Eu-155	1.530E-06	1.530E-06	DCF3 ( 18)
D-1	Fe-55	6.070E-07	6.070E-07	DCF3 ( 19)
D-1	Gd-152	1.610E-04	1.610E-04	DCF3 ( 20)
D-1	H-3	6.400E-08	6.400E-08	DCF3 ( 21)
D-1	Ni-59	2.100E-07	2.100E-07	DCF3 ( 22)
D-1	Ni-63	5.770E-07	5.770E-07	DCF3 ( 23)
D-1	Np-237+D	4.444E-03	4.440E-03	DCF3 ( 24)

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

Dose Library: FCS FGR11 Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-1	Pa-231	1.060E-02	1.060E-02	DCF3( 25)
D-1	Pb-210+D	5.376E-03	5.370E-03	DCF3( 26)
D-1	Po-210	1.900E-03	1.900E-03	DCF3( 27)
D-1	Pu-238	3.200E-03	3.200E-03	DCF3( 28)
D-1	Pu-239	3.540E-03	3.540E-03	DCF3( 30)
D-1	Pu-240	3.540E-03	3.540E-03	DCF3( 31)
D-1	Pu-241	6.840E-05	6.840E-05	DCF3( 33)
D-1	Pu-241+D	7.157E-05	6.840E-05	DCF3( 34)
D-1	Ra-226+D	1.321E-03	1.320E-03	DCF3( 35)
D-1	Ra-228+D	1.442E-03	1.440E-03	DCF3( 36)
D-1	Sb-125	2.810E-06	2.810E-06	DCF3( 37)
D-1	Sr-90+D	1.528E-04	1.420E-04	DCF3( 39)
D-1	Tc-99	1.460E-06	1.460E-06	DCF3( 40)
D-1	Te-125m	3.670E-06	3.670E-06	DCF3( 41)
D-1	Th-228+D	8.086E-04	3.960E-04	DCF3( 42)
D-1	Th-229+D	4.027E-03	3.530E-03	DCF3( 43)
D-1	Th-230	5.480E-04	5.480E-04	DCF3( 44)
D-1	Th-232	2.730E-03	2.730E-03	DCF3( 45)
D-1	U-233	2.890E-04	2.890E-04	DCF3( 46)
D-1	U-234	2.830E-04	2.830E-04	DCF3( 47)
D-1	U-235+D	2.673E-04	2.660E-04	DCF3( 48)
D-1	U-236	2.690E-04	2.690E-04	DCF3( 49)
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	Am-241 , plant/soil concentration ratio, dimensionless	1.830E-03	1.000E-03	RTF( 2,1)
D-34	Am-241 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.740E-05	5.000E-05	RTF( 2,2)
D-34	Am-241 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.260E-06	2.000E-06	RTF( 2,3)
D-34				
D-34	Am-243+D , plant/soil concentration ratio, dimensionless	1.830E-03	1.000E-03	RTF( 3,1)
D-34	Am-243+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.740E-05	5.000E-05	RTF( 3,2)
D-34	Am-243+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.260E-06	2.000E-06	RTF( 3,3)
D-34				
D-34	C-14 , plant/soil concentration ratio, dimensionless	1.280E+00	5.500E+00	RTF( 4,1)
D-34	C-14 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	6.110E-02	3.100E-02	RTF( 4,2)
D-34	C-14 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.250E-02	1.200E-02	RTF( 4,3)
D-34				
D-34	Ce-144+D , plant/soil concentration ratio, dimensionless	3.940E-03	2.000E-03	RTF( 5,1)
D-34	Ce-144+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.790E-05	2.000E-05	RTF( 5,2)
D-34	Ce-144+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	4.840E-05	5.000E-05	RTF( 5,3)
D-34				
D-34	Cm-243 , plant/soil concentration ratio, dimensionless	1.830E-03	1.000E-03	RTF( 6,1)
D-34	Cm-243 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	4.080E-05	2.000E-05	RTF( 6,2)
D-34	Cm-243 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.800E-06	2.000E-06	RTF( 6,3)
D-34				

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

Dose Library: FCS FGR11 Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-34	Cm-244 , plant/soil concentration ratio, dimensionless	1.830E-03	1.000E-03	RTF( 8,1)
D-34	Cm-244 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	4.080E-05	2.000E-05	RTF( 8,2)
D-34	Cm-244 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.800E-06	2.000E-06	RTF( 8,3)
D-34				
D-34	Co-58 , plant/soil concentration ratio, dimensionless	1.460E-01	8.000E-02	RTF( 11,1)
D-34	Co-58 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.980E-02	2.000E-02	RTF( 11,2)
D-34	Co-58 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.220E-03	2.000E-03	RTF( 11,3)
D-34				
D-34	Co-60 , plant/soil concentration ratio, dimensionless	1.460E-01	8.000E-02	RTF( 12,1)
D-34	Co-60 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.980E-02	2.000E-02	RTF( 12,2)
D-34	Co-60 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.220E-03	2.000E-03	RTF( 12,3)
D-34				
D-34	Cs-134 , plant/soil concentration ratio, dimensionless	7.830E-02	4.000E-02	RTF( 13,1)
D-34	Cs-134 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	6.560E-02	3.000E-02	RTF( 13,2)
D-34	Cs-134 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.370E-02	8.000E-03	RTF( 13,3)
D-34				
D-34	Cs-137+D , plant/soil concentration ratio, dimensionless	7.830E-02	4.000E-02	RTF( 14,1)
D-34	Cs-137+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	6.560E-02	3.000E-02	RTF( 14,2)
D-34	Cs-137+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.370E-02	8.000E-03	RTF( 14,3)
D-34				
D-34	Eu-152 , plant/soil concentration ratio, dimensionless	4.210E-03	2.500E-03	RTF( 15,1)
D-34	Eu-152 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	4.020E-03	2.000E-03	RTF( 15,2)
D-34	Eu-152 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.120E-04	5.000E-05	RTF( 15,3)
D-34				
D-34	Eu-154 , plant/soil concentration ratio, dimensionless	4.210E-03	2.500E-03	RTF( 17,1)
D-34	Eu-154 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	4.020E-03	2.000E-03	RTF( 17,2)
D-34	Eu-154 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.120E-04	5.000E-05	RTF( 17,3)
D-34				
D-34	Eu-155 , plant/soil concentration ratio, dimensionless	4.210E-03	2.500E-03	RTF( 18,1)
D-34	Eu-155 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	4.020E-03	2.000E-03	RTF( 18,2)
D-34	Eu-155 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.120E-04	5.000E-05	RTF( 18,3)
D-34				
D-34	Fe-55 , plant/soil concentration ratio, dimensionless	1.830E-03	1.000E-03	RTF( 19,1)
D-34	Fe-55 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.940E-02	2.000E-02	RTF( 19,2)
D-34	Fe-55 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	4.780E-04	3.000E-04	RTF( 19,3)
D-34				
D-34	Gd-152 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 20,1)
D-34	Gd-152 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-03	2.000E-03	RTF( 20,2)
D-34	Gd-152 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-05	2.000E-05	RTF( 20,3)
D-34				
D-34	H-3 , plant/soil concentration ratio, dimensionless	1.010E+01	4.800E+00	RTF( 21,1)
D-34	H-3 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.360E-02	1.200E-02	RTF( 21,2)
D-34	H-3 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.850E-02	1.000E-02	RTF( 21,3)
D-34				
D-34	Ni-59 , plant/soil concentration ratio, dimensionless	9.130E-02	5.000E-02	RTF( 22,1)
D-34	Ni-59 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	9.260E-03	5.000E-03	RTF( 22,2)
D-34	Ni-59 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.190E-02	2.000E-02	RTF( 22,3)
D-34				

Summary : RESRAD Default Parameters

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

Dose Library: FCS FGR11 Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-34	Ni-63 , plant/soil concentration ratio, dimensionless	9.130E-02	5.000E-02	RTF( 23,1)
D-34	Ni-63 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	9.260E-03	5.000E-03	RTF( 23,2)
D-34	Ni-63 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.190E-02	2.000E-02	RTF( 23,3)
D-34				
D-34	Np-237+D , plant/soil concentration ratio, dimensionless	3.670E-02	2.000E-02	RTF( 24,1)
D-34	Np-237+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.590E-03	1.000E-03	RTF( 24,2)
D-34	Np-237+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.610E-05	5.000E-06	RTF( 24,3)
D-34				
D-34	Pa-231 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 25,1)
D-34	Pa-231 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 25,2)
D-34	Pa-231 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 25,3)
D-34				
D-34	Pb-210+D , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 26,1)
D-34	Pb-210+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-04	8.000E-04	RTF( 26,2)
D-34	Pb-210+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 26,3)
D-34				
D-34	Po-210 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 27,1)
D-34	Po-210 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 27,2)
D-34	Po-210 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.400E-04	3.400E-04	RTF( 27,3)
D-34				
D-34	Pu-238 , plant/soil concentration ratio, dimensionless	1.830E-03	1.000E-03	RTF( 28,1)
D-34	Pu-238 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.140E-04	1.000E-04	RTF( 28,2)
D-34	Pu-238 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.390E-06	1.000E-06	RTF( 28,3)
D-34				
D-34	Pu-239 , plant/soil concentration ratio, dimensionless	1.830E-03	1.000E-03	RTF( 30,1)
D-34	Pu-239 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.140E-04	1.000E-04	RTF( 30,2)
D-34	Pu-239 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.390E-06	1.000E-06	RTF( 30,3)
D-34				
D-34	Pu-240 , plant/soil concentration ratio, dimensionless	1.830E-03	1.000E-03	RTF( 31,1)
D-34	Pu-240 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.140E-04	1.000E-04	RTF( 31,2)
D-34	Pu-240 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.390E-06	1.000E-06	RTF( 31,3)
D-34				
D-34	Pu-241 , plant/soil concentration ratio, dimensionless	1.830E-03	1.000E-03	RTF( 33,1)
D-34	Pu-241 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.140E-04	1.000E-04	RTF( 33,2)
D-34	Pu-241 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.390E-06	1.000E-06	RTF( 33,3)
D-34				
D-34	Pu-241+D , plant/soil concentration ratio, dimensionless	1.830E-03	1.000E-03	RTF( 34,1)
D-34	Pu-241+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.140E-04	1.000E-04	RTF( 34,2)
D-34	Pu-241+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.390E-06	1.000E-06	RTF( 34,3)
D-34				
D-34	Ra-226+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 35,1)
D-34	Ra-226+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 35,2)
D-34	Ra-226+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF( 35,3)
D-34				
D-34	Ra-228+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 36,1)
D-34	Ra-228+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 36,2)
D-34	Ra-228+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF( 36,3)
D-34				

Summary : RESRAD Default Parameters

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

Dose Library: FCS FGR11 Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-34	Sb-125 , plant/soil concentration ratio, dimensionless	1.950E-02	1.000E-02	RTF( 37,1)
D-34	Sb-125 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.850E-03	1.000E-03	RTF( 37,2)
D-34	Sb-125 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.120E-04	1.000E-04	RTF( 37,3)
D-34				
D-34	Sr-90+D , plant/soil concentration ratio, dimensionless	5.900E-01	3.000E-01	RTF( 39,1)
D-34	Sr-90+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.310E-02	8.000E-03	RTF( 39,2)
D-34	Sr-90+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.760E-03	2.000E-03	RTF( 39,3)
D-34				
D-34	Tc-99 , plant/soil concentration ratio, dimensionless	9.170E+00	5.000E+00	RTF( 40,1)
D-34	Tc-99 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.590E-04	1.000E-04	RTF( 40,2)
D-34	Tc-99 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.590E-03	1.000E-03	RTF( 40,3)
D-34				
D-34	Te-125m , plant/soil concentration ratio, dimensionless	6.000E-01	6.000E-01	RTF( 41,1)
D-34	Te-125m , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	7.000E-03	7.000E-03	RTF( 41,2)
D-34	Te-125m , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-04	5.000E-04	RTF( 41,3)
D-34				
D-34	Th-228+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 42,1)
D-34	Th-228+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 42,2)
D-34	Th-228+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 42,3)
D-34				
D-34	Th-229+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 43,1)
D-34	Th-229+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 43,2)
D-34	Th-229+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 43,3)
D-34				
D-34	Th-230 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 44,1)
D-34	Th-230 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 44,2)
D-34	Th-230 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 44,3)
D-34				
D-34	Th-232 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 45,1)
D-34	Th-232 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 45,2)
D-34	Th-232 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 45,3)
D-34				
D-34	U-233 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 46,1)
D-34	U-233 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 46,2)
D-34	U-233 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 46,3)
D-34				
D-34	U-234 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 47,1)
D-34	U-234 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 47,2)
D-34	U-234 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 47,3)
D-34				
D-34	U-235+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 48,1)
D-34	U-235+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 48,2)
D-34	U-235+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 48,3)
D-34				
D-34	U-236 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 49,1)
D-34	U-236 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF( 49,2)
D-34	U-236 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF( 49,3)



Summary : RESRAD Default Parameters

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

Dose Library: FCS FGR11 Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
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	Am-241 , fish	3.000E+01	3.000E+01	BIOFAC( 2,1)
D-5	Am-241 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 2,2)
D-5				
D-5	Am-243+D , fish	3.000E+01	3.000E+01	BIOFAC( 3,1)
D-5	Am-243+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 3,2)
D-5				
D-5	C-14 , fish	5.000E+04	5.000E+04	BIOFAC( 4,1)
D-5	C-14 , crustacea and mollusks	9.100E+03	9.100E+03	BIOFAC( 4,2)
D-5				
D-5	Ce-144+D , fish	3.000E+01	3.000E+01	BIOFAC( 5,1)
D-5	Ce-144+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 5,2)
D-5				
D-5	Cm-243 , fish	3.000E+01	3.000E+01	BIOFAC( 6,1)
D-5	Cm-243 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 6,2)
D-5				
D-5	Cm-244 , fish	3.000E+01	3.000E+01	BIOFAC( 8,1)
D-5	Cm-244 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 8,2)
D-5				
D-5	Co-58 , fish	3.000E+02	3.000E+02	BIOFAC( 11,1)
D-5	Co-58 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC( 11,2)
D-5				
D-5	Co-60 , fish	3.000E+02	3.000E+02	BIOFAC( 12,1)
D-5	Co-60 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC( 12,2)
D-5				
D-5	Cs-134 , fish	2.000E+03	2.000E+03	BIOFAC( 13,1)
D-5	Cs-134 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 13,2)
D-5				
D-5	Cs-137+D , fish	2.000E+03	2.000E+03	BIOFAC( 14,1)
D-5	Cs-137+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 14,2)
D-5				
D-5	Eu-152 , fish	5.000E+01	5.000E+01	BIOFAC( 15,1)
D-5	Eu-152 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 15,2)
D-5				
D-5	Eu-154 , fish	5.000E+01	5.000E+01	BIOFAC( 17,1)
D-5	Eu-154 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 17,2)
D-5				
D-5	Eu-155 , fish	5.000E+01	5.000E+01	BIOFAC( 18,1)
D-5	Eu-155 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 18,2)
D-5				
D-5	Fe-55 , fish	2.000E+02	2.000E+02	BIOFAC( 19,1)
D-5	Fe-55 , crustacea and mollusks	3.200E+03	3.200E+03	BIOFAC( 19,2)
D-5				
D-5	Gd-152 , fish	2.500E+01	2.500E+01	BIOFAC( 20,1)
D-5	Gd-152 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 20,2)
D-5				

Summary : RESRAD Default Parameters

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

Dose Library: FCS FGR11 Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-5	H-3 , fish	1.000E+00	1.000E+00	BIOFAC( 21,1)
D-5	H-3 , crustacea and mollusks	1.000E+00	1.000E+00	BIOFAC( 21,2)
D-5				
D-5	Ni-59 , fish	1.000E+02	1.000E+02	BIOFAC( 22,1)
D-5	Ni-59 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 22,2)
D-5				
D-5	Ni-63 , fish	1.000E+02	1.000E+02	BIOFAC( 23,1)
D-5	Ni-63 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 23,2)
D-5				
D-5	Np-237+D , fish	3.000E+01	3.000E+01	BIOFAC( 24,1)
D-5	Np-237+D , crustacea and mollusks	4.000E+02	4.000E+02	BIOFAC( 24,2)
D-5				
D-5	Pa-231 , fish	1.000E+01	1.000E+01	BIOFAC( 25,1)
D-5	Pa-231 , crustacea and mollusks	1.100E+02	1.100E+02	BIOFAC( 25,2)
D-5				
D-5	Pb-210+D , fish	3.000E+02	3.000E+02	BIOFAC( 26,1)
D-5	Pb-210+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 26,2)
D-5				
D-5	Po-210 , fish	1.000E+02	1.000E+02	BIOFAC( 27,1)
D-5	Po-210 , crustacea and mollusks	2.000E+04	2.000E+04	BIOFAC( 27,2)
D-5				
D-5	Pu-238 , fish	3.000E+01	3.000E+01	BIOFAC( 28,1)
D-5	Pu-238 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 28,2)
D-5				
D-5	Pu-239 , fish	3.000E+01	3.000E+01	BIOFAC( 30,1)
D-5	Pu-239 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 30,2)
D-5				
D-5	Pu-240 , fish	3.000E+01	3.000E+01	BIOFAC( 31,1)
D-5	Pu-240 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 31,2)
D-5				
D-5	Pu-241 , fish	3.000E+01	3.000E+01	BIOFAC( 33,1)
D-5	Pu-241 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 33,2)
D-5				
D-5	Pu-241+D , fish	3.000E+01	3.000E+01	BIOFAC( 34,1)
D-5	Pu-241+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 34,2)
D-5				
D-5	Ra-226+D , fish	5.000E+01	5.000E+01	BIOFAC( 35,1)
D-5	Ra-226+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC( 35,2)
D-5				
D-5	Ra-228+D , fish	5.000E+01	5.000E+01	BIOFAC( 36,1)
D-5	Ra-228+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC( 36,2)
D-5				
D-5	Sb-125 , fish	1.000E+02	1.000E+02	BIOFAC( 37,1)
D-5	Sb-125 , crustacea and mollusks	1.000E+01	1.000E+01	BIOFAC( 37,2)
D-5				
D-5	Sr-90+D , fish	6.000E+01	6.000E+01	BIOFAC( 39,1)
D-5	Sr-90+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 39,2)
D-5				
D-5	Tc-99 , fish	2.000E+01	2.000E+01	BIOFAC( 40,1)
D-5	Tc-99 , crustacea and mollusks	5.000E+00	5.000E+00	BIOFAC( 40,2)

Summary : RESRAD Default Parameters

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

Dose Library: FCS FGR11 Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-5	Te-125m , fish	4.000E+02	4.000E+02	BIOFAC( 41,1)
D-5	Te-125m , crustacea and mollusks	7.500E+01	7.500E+01	BIOFAC( 41,2)
D-5				
D-5	Th-228+D , fish	1.000E+02	1.000E+02	BIOFAC( 42,1)
D-5	Th-228+D , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC( 42,2)
D-5				
D-5	Th-229+D , fish	1.000E+02	1.000E+02	BIOFAC( 43,1)
D-5	Th-229+D , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC( 43,2)
D-5				
D-5	Th-230 , fish	1.000E+02	1.000E+02	BIOFAC( 44,1)
D-5	Th-230 , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC( 44,2)
D-5				
D-5	Th-232 , fish	1.000E+02	1.000E+02	BIOFAC( 45,1)
D-5	Th-232 , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC( 45,2)
D-5				
D-5	U-233 , fish	1.000E+01	1.000E+01	BIOFAC( 46,1)
D-5	U-233 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC( 46,2)
D-5				
D-5	U-234 , fish	1.000E+01	1.000E+01	BIOFAC( 47,1)
D-5	U-234 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC( 47,2)
D-5				
D-5	U-235+D , fish	1.000E+01	1.000E+01	BIOFAC( 48,1)
D-5	U-235+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC( 48,2)
D-5				
D-5	U-236 , fish	1.000E+01	1.000E+01	BIOFAC( 49,1)
D-5	U-236 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC( 49,2)

#For DCF1(xxx) only, factors are for infinite depth &amp; area. See ETEG table in Ground Pathway of Detailed Report.

\*Base Case means Default.Lib w/o Associate Nuclide contributions.

Summary : RESRAD Default Parameters

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## Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	7.960E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.500E-01	2.000E+00	---	THICK0
R011	Fraction of contamination that is submerged	0.000E+00	0.000E+00	---	SUBMFRACT
R011	Length parallel to aquifer flow (m)	3.180E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	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): Am-241	1.000E+00	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): C-14	1.000E+00	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ce-144	1.000E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Cm-243	1.000E+00	0.000E+00	---	S1(6)
R012	Initial principal radionuclide (pCi/g): Cm-244	1.000E+00	0.000E+00	---	S1(8)
R012	Initial principal radionuclide (pCi/g): Co-58	1.000E+00	0.000E+00	---	S1(11)
R012	Initial principal radionuclide (pCi/g): Co-60	1.000E+00	0.000E+00	---	S1(12)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.000E+00	0.000E+00	---	S1(13)
R012	Initial principal radionuclide (pCi/g): Cs-137	1.000E+00	0.000E+00	---	S1(14)
R012	Initial principal radionuclide (pCi/g): Eu-152	1.000E+00	0.000E+00	---	S1(15)
R012	Initial principal radionuclide (pCi/g): Eu-154	1.000E+00	0.000E+00	---	S1(17)
R012	Initial principal radionuclide (pCi/g): Eu-155	1.000E+00	0.000E+00	---	S1(18)
R012	Initial principal radionuclide (pCi/g): Fe-55	1.000E+00	0.000E+00	---	S1(19)
R012	Initial principal radionuclide (pCi/g): H-3	1.000E+00	0.000E+00	---	S1(21)
R012	Initial principal radionuclide (pCi/g): Ni-59	1.000E+00	0.000E+00	---	S1(22)
R012	Initial principal radionuclide (pCi/g): Ni-63	1.000E+00	0.000E+00	---	S1(23)
R012	Initial principal radionuclide (pCi/g): Np-237	1.000E+00	0.000E+00	---	S1(24)
R012	Initial principal radionuclide (pCi/g): Pu-238	1.000E+00	0.000E+00	---	S1(28)
R012	Initial principal radionuclide (pCi/g): Pu-239	1.000E+00	0.000E+00	---	S1(30)
R012	Initial principal radionuclide (pCi/g): Pu-240	1.000E+00	0.000E+00	---	S1(31)
R012	Initial principal radionuclide (pCi/g): Pu-241	1.000E+00	0.000E+00	---	S1(33)
R012	Initial principal radionuclide (pCi/g): Sb-125	1.000E+00	0.000E+00	---	S1(37)
R012	Initial principal radionuclide (pCi/g): Sr-90	1.000E+00	0.000E+00	---	S1(39)
R012	Initial principal radionuclide (pCi/g): Tc-99	1.000E+00	0.000E+00	---	S1(40)
R012	Concentration in groundwater (pCi/L): Am-241	not used	0.000E+00	---	W1( 2)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1( 4)
R012	Concentration in groundwater (pCi/L): Ce-144	not used	0.000E+00	---	W1( 5)
R012	Concentration in groundwater (pCi/L): Cm-243	not used	0.000E+00	---	W1( 6)
R012	Concentration in groundwater (pCi/L): Cm-244	not used	0.000E+00	---	W1( 8)
R012	Concentration in groundwater (pCi/L): Co-58	not used	0.000E+00	---	W1(11)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(12)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(13)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(14)
R012	Concentration in groundwater (pCi/L): Eu-152	not used	0.000E+00	---	W1(15)

Summary : RESRAD Default Parameters

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R012	Concentration in groundwater (pCi/L): Eu-154	not used	0.000E+00	---	W1 (17)
R012	Concentration in groundwater (pCi/L): Eu-155	not used	0.000E+00	---	W1 (18)
R012	Concentration in groundwater (pCi/L): Fe-55	not used	0.000E+00	---	W1 (19)
R012	Concentration in groundwater (pCi/L): H-3	not used	0.000E+00	---	W1 (21)
R012	Concentration in groundwater (pCi/L): Ni-59	not used	0.000E+00	---	W1 (22)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1 (23)
R012	Concentration in groundwater (pCi/L): Np-237	not used	0.000E+00	---	W1 (24)
R012	Concentration in groundwater (pCi/L): Pu-238	not used	0.000E+00	---	W1 (28)
R012	Concentration in groundwater (pCi/L): Pu-239	not used	0.000E+00	---	W1 (30)
R012	Concentration in groundwater (pCi/L): Pu-240	not used	0.000E+00	---	W1 (31)
R012	Concentration in groundwater (pCi/L): Pu-241	not used	0.000E+00	---	W1 (33)
R012	Concentration in groundwater (pCi/L): Sb-125	not used	0.000E+00	---	W1 (37)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1 (39)
R012	Concentration in groundwater (pCi/L): Tc-99	not used	0.000E+00	---	W1 (40)
R013	Cover depth (m)	0.000E+00	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	not used	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	not used	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	1.500E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	7.590E-04	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.300E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.800E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	3.440E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	2.870E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.270E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	7.240E+00	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	8.700E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	7.600E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	1.900E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	6.300E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+06	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	Romberg failures occurred	EPS
R014	Density of saturated zone (g/cm**3)	1.490E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	4.500E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ
R014	Saturated zone field capacity	2.400E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	4.350E+03	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	8.400E-04	2.000E-02	---	HGWT
R014	Saturated zone b parameter	not used	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	0.000E+00	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.140E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	4.550E+03	2.500E+02	---	UW
R015	Number of unsaturated zone strata	1	1	---	NS

Summary : RESRAD Default Parameters

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R015	Unsat. zone 1, thickness (m)	1.000E-01	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	4.300E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	1.600E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.800E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	3.600E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	3.440E+01	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for Am-241				
R016	Contaminated zone (cm**3/g)	1.250E+03	2.000E+01	---	DCNUCC( 2)
R016	Unsaturated zone 1 (cm**3/g)	1.250E+03	2.000E+01	---	DCNUCU( 2,1)
R016	Saturated zone (cm**3/g)	1.000E+03	2.000E+01	---	DCNUCS( 2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.178E-04	ALEACH( 2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 2)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	9.670E+01	0.000E+00	---	DCNUCC( 4)
R016	Unsaturated zone 1 (cm**3/g)	9.670E+01	0.000E+00	---	DCNUCU( 4,1)
R016	Saturated zone (cm**3/g)	1.100E+01	0.000E+00	---	DCNUCS( 4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.810E-03	ALEACH( 4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 4)
R016	Distribution coefficients for Ce-144				
R016	Contaminated zone (cm**3/g)	3.010E+03	1.000E+03	---	DCNUCC( 5)
R016	Unsaturated zone 1 (cm**3/g)	3.010E+03	1.000E+03	---	DCNUCU( 5,1)
R016	Saturated zone (cm**3/g)	3.990E+02	1.000E+03	---	DCNUCS( 5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	9.044E-05	ALEACH( 5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 5)
R016	Distribution coefficients for Cm-243				
R016	Contaminated zone (cm**3/g)	1.900E+04	-1.000E+00	---	DCNUCC( 6)
R016	Unsaturated zone 1 (cm**3/g)	1.900E+04	-1.000E+00	---	DCNUCU( 6,1)
R016	Saturated zone (cm**3/g)	3.390E+03	-1.000E+00	---	DCNUCS( 6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.433E-05	ALEACH( 6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 6)
R016	Distribution coefficients for Cm-244				
R016	Contaminated zone (cm**3/g)	1.900E+04	-1.000E+00	---	DCNUCC( 8)
R016	Unsaturated zone 1 (cm**3/g)	1.900E+04	-1.000E+00	---	DCNUCU( 8,1)
R016	Saturated zone (cm**3/g)	3.390E+03	-1.000E+00	---	DCNUCS( 8)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.433E-05	ALEACH( 8)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 8)
R016	Distribution coefficients for Co-58				
R016	Contaminated zone (cm**3/g)	5.050E+03	1.000E+03	---	DCNUCC(11)
R016	Unsaturated zone 1 (cm**3/g)	5.050E+03	1.000E+03	---	DCNUCU(11,1)
R016	Saturated zone (cm**3/g)	2.600E+02	1.000E+03	---	DCNUCS(11)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.391E-05	ALEACH(11)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(11)

Summary : RESRAD Default Parameters

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	5.050E+03	1.000E+03	---	DCNUCC (12)
R016	Unsaturated zone 1 (cm**3/g)	5.050E+03	1.000E+03	---	DCNUCU (12,1)
R016	Saturated zone (cm**3/g)	2.600E+02	1.000E+03	---	DCNUCS (12)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.391E-05	ALEACH (12)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (12)
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	3.500E+03	4.600E+03	---	DCNUCC (13)
R016	Unsaturated zone 1 (cm**3/g)	3.500E+03	4.600E+03	---	DCNUCU (13,1)
R016	Saturated zone (cm**3/g)	5.280E+02	4.600E+03	---	DCNUCS (13)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.778E-05	ALEACH (13)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (13)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	3.500E+03	4.600E+03	---	DCNUCC (14)
R016	Unsaturated zone 1 (cm**3/g)	3.500E+03	4.600E+03	---	DCNUCU (14,1)
R016	Saturated zone (cm**3/g)	5.280E+02	4.600E+03	---	DCNUCS (14)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.778E-05	ALEACH (14)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (14)
R016	Distribution coefficients for Eu-152				
R016	Contaminated zone (cm**3/g)	7.270E+03	-1.000E+00	---	DCNUCC (15)
R016	Unsaturated zone 1 (cm**3/g)	7.270E+03	-1.000E+00	---	DCNUCU (15,1)
R016	Saturated zone (cm**3/g)	8.290E+02	-1.000E+00	---	DCNUCS (15)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.745E-05	ALEACH (15)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (15)
R016	Distribution coefficients for Eu-154				
R016	Contaminated zone (cm**3/g)	7.270E+03	-1.000E+00	---	DCNUCC (17)
R016	Unsaturated zone 1 (cm**3/g)	7.270E+03	-1.000E+00	---	DCNUCU (17,1)
R016	Saturated zone (cm**3/g)	8.290E+02	-1.000E+00	---	DCNUCS (17)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.745E-05	ALEACH (17)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (17)
R016	Distribution coefficients for Eu-155				
R016	Contaminated zone (cm**3/g)	7.270E+03	-1.000E+00	---	DCNUCC (18)
R016	Unsaturated zone 1 (cm**3/g)	7.270E+03	-1.000E+00	---	DCNUCU (18,1)
R016	Saturated zone (cm**3/g)	8.290E+02	-1.000E+00	---	DCNUCS (18)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.745E-05	ALEACH (18)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (18)
R016	Distribution coefficients for Fe-55				
R016	Contaminated zone (cm**3/g)	8.890E+02	1.000E+03	---	DCNUCC (19)
R016	Unsaturated zone 1 (cm**3/g)	8.890E+02	1.000E+03	---	DCNUCU (19,1)
R016	Saturated zone (cm**3/g)	3.210E+02	1.000E+03	---	DCNUCS (19)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.062E-04	ALEACH (19)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (19)

Summary : RESRAD Default Parameters

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for H-3				
R016	Contaminated zone (cm**3/g)	4.300E-02	0.000E+00	---	DCNUCC (21)
R016	Unsaturated zone 1 (cm**3/g)	4.300E-02	0.000E+00	---	DCNUCU (21,1)
R016	Saturated zone (cm**3/g)	6.020E-02	0.000E+00	---	DCNUCS (21)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.185E+00	ALEACH (21)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (21)
R016	Distribution coefficients for Ni-59				
R016	Contaminated zone (cm**3/g)	1.790E+02	1.000E+03	---	DCNUCC (22)
R016	Unsaturated zone 1 (cm**3/g)	1.790E+02	1.000E+03	---	DCNUCU (22,1)
R016	Saturated zone (cm**3/g)	1.300E+02	1.000E+03	---	DCNUCS (22)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.519E-03	ALEACH (22)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (22)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	5.320E+02	1.000E+03	---	DCNUCC (23)
R016	Unsaturated zone 1 (cm**3/g)	5.320E+02	1.000E+03	---	DCNUCU (23,1)
R016	Saturated zone (cm**3/g)	1.300E+02	1.000E+03	---	DCNUCS (23)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.116E-04	ALEACH (23)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (23)
R016	Distribution coefficients for Np-237				
R016	Contaminated zone (cm**3/g)	9.050E+00	-1.000E+00	---	DCNUCC (24)
R016	Unsaturated zone 1 (cm**3/g)	9.050E+00	-1.000E+00	---	DCNUCU (24,1)
R016	Saturated zone (cm**3/g)	5.490E+00	-1.000E+00	---	DCNUCS (24)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.947E-02	ALEACH (24)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (24)
R016	Distribution coefficients for Pu-238				
R016	Contaminated zone (cm**3/g)	9.530E+02	2.000E+03	---	DCNUCC (28)
R016	Unsaturated zone 1 (cm**3/g)	9.530E+02	2.000E+03	---	DCNUCU (28,1)
R016	Saturated zone (cm**3/g)	3.990E+02	2.000E+03	---	DCNUCS (28)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.856E-04	ALEACH (28)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (28)
R016	Distribution coefficients for Pu-239				
R016	Contaminated zone (cm**3/g)	9.530E+02	2.000E+03	---	DCNUCC (30)
R016	Unsaturated zone 1 (cm**3/g)	9.530E+02	2.000E+03	---	DCNUCU (30,1)
R016	Saturated zone (cm**3/g)	3.990E+02	2.000E+03	---	DCNUCS (30)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.856E-04	ALEACH (30)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (30)
R016	Distribution coefficients for Pu-240				
R016	Contaminated zone (cm**3/g)	9.530E+02	2.000E+03	---	DCNUCC (31)
R016	Unsaturated zone 1 (cm**3/g)	9.530E+02	2.000E+03	---	DCNUCU (31,1)
R016	Saturated zone (cm**3/g)	3.990E+02	2.000E+03	---	DCNUCS (31)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.856E-04	ALEACH (31)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (31)



Summary : RESRAD Default Parameters

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Pu-241				
R016	Contaminated zone (cm**3/g)	9.530E+02	2.000E+03	---	DCNUCC (33)
R016	Unsaturated zone 1 (cm**3/g)	9.530E+02	2.000E+03	---	DCNUCU (33,1)
R016	Saturated zone (cm**3/g)	3.990E+02	2.000E+03	---	DCNUCS (33)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.856E-04	ALEACH (33)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (33)
R016	Distribution coefficients for Sb-125				
R016	Contaminated zone (cm**3/g)	1.280E+02	0.000E+00	---	DCNUCC (37)
R016	Unsaturated zone 1 (cm**3/g)	1.280E+02	0.000E+00	---	DCNUCU (37,1)
R016	Saturated zone (cm**3/g)	1.690E+01	0.000E+00	---	DCNUCS (37)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.124E-03	ALEACH (37)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (37)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	1.680E+02	3.000E+01	---	DCNUCC (39)
R016	Unsaturated zone 1 (cm**3/g)	1.680E+02	3.000E+01	---	DCNUCU (39,1)
R016	Saturated zone (cm**3/g)	2.200E+01	3.000E+01	---	DCNUCS (39)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.619E-03	ALEACH (39)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (39)
R016	Distribution coefficients for Tc-99				
R016	Contaminated zone (cm**3/g)	1.470E-01	0.000E+00	---	DCNUCC (40)
R016	Unsaturated zone 1 (cm**3/g)	1.470E-01	0.000E+00	---	DCNUCU (40,1)
R016	Saturated zone (cm**3/g)	4.000E-01	0.000E+00	---	DCNUCS (40)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.159E-01	ALEACH (40)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (40)
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC ( 1)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU ( 1,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS ( 1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.349E-02	ALEACH ( 1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 1)
R016	Distribution coefficients for daughter Am-243				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC ( 3)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU ( 3,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS ( 3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.349E-02	ALEACH ( 3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 3)
R016	Distribution coefficients for daughter Gd-152				
R016	Contaminated zone (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCC (20)
R016	Unsaturated zone 1 (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCU (20,1)
R016	Saturated zone (cm**3/g)	-1.000E+00	-1.000E+00	8.249E+02	DCNUCS (20)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.300E-04	ALEACH (20)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (20)

Summary : RESRAD Default Parameters

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for daughter Pa-231				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (25)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (25,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (25)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.425E-03	ALEACH (25)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (25)
R016	Distribution coefficients for daughter Pb-210				
R016	Contaminated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCC (26)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCU (26,1)
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCS (26)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.717E-03	ALEACH (26)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (26)
R016	Distribution coefficients for daughter Po-210				
R016	Contaminated zone (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCC (27)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCU (27,1)
R016	Saturated zone (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCS (27)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.673E-02	ALEACH (27)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (27)
R016	Distribution coefficients for daughter Ra-226				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC (35)
R016	Unsaturated zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU (35,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS (35)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.879E-03	ALEACH (35)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (35)
R016	Distribution coefficients for daughter Ra-228				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC (36)
R016	Unsaturated zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU (36,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS (36)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.879E-03	ALEACH (36)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (36)
R016	Distribution coefficients for daughter Te-125m				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC (41)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU (41,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS (41)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.458E+00	ALEACH (41)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (41)
R016	Distribution coefficients for daughter Th-228				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC (42)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU (42,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS (42)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.537E-06	ALEACH (42)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (42)

Summary : RESRAD Default Parameters

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for daughter Th-229				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC (43)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU (43,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS (43)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.537E-06	ALEACH (43)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (43)
R016	Distribution coefficients for daughter Th-230				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC (44)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU (44,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS (44)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.537E-06	ALEACH (44)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (44)
R016	Distribution coefficients for daughter Th-232				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC (45)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU (45,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS (45)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.537E-06	ALEACH (45)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (45)
R016	Distribution coefficients for daughter U-233				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (46)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (46,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (46)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.425E-03	ALEACH (46)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (46)
R016	Distribution coefficients for daughter U-234				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (47)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (47,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (47)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.425E-03	ALEACH (47)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (47)
R016	Distribution coefficients for daughter U-235				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (48)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (48,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (48)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.425E-03	ALEACH (48)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (48)
R016	Distribution coefficients for daughter U-236				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC (49)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU (49,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS (49)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.425E-03	ALEACH (49)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (49)
R017	Inhalation rate (m**3/yr)	8.600E+03	8.400E+03	---	INHALR

Summary : RESRAD Default Parameters

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Mass loading for inhalation (g/m**3)	2.870E-05	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	7.500E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	5.520E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	6.600E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.200E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	not used	5.000E+01	---	RAD_SHAPE( 1)
R017	Outer annular radius (m), ring 2:	not used	7.071E+01	---	RAD_SHAPE( 2)
R017	Outer annular radius (m), ring 3:	not used	0.000E+00	---	RAD_SHAPE( 3)
R017	Outer annular radius (m), ring 4:	not used	0.000E+00	---	RAD_SHAPE( 4)
R017	Outer annular radius (m), ring 5:	not used	0.000E+00	---	RAD_SHAPE( 5)
R017	Outer annular radius (m), ring 6:	not used	0.000E+00	---	RAD_SHAPE( 6)
R017	Outer annular radius (m), ring 7:	not used	0.000E+00	---	RAD_SHAPE( 7)
R017	Outer annular radius (m), ring 8:	not used	0.000E+00	---	RAD_SHAPE( 8)
R017	Outer annular radius (m), ring 9:	not used	0.000E+00	---	RAD_SHAPE( 9)
R017	Outer annular radius (m), ring 10:	not used	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	not used	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	not used	0.000E+00	---	RAD_SHAPE(12)
R017	Fractions of annular areas within AREA:				
R017	Ring 1	not used	1.000E+00	---	FRACA( 1)
R017	Ring 2	not used	2.732E-01	---	FRACA( 2)
R017	Ring 3	not used	0.000E+00	---	FRACA( 3)
R017	Ring 4	not used	0.000E+00	---	FRACA( 4)
R017	Ring 5	not used	0.000E+00	---	FRACA( 5)
R017	Ring 6	not used	0.000E+00	---	FRACA( 6)
R017	Ring 7	not used	0.000E+00	---	FRACA( 7)
R017	Ring 8	not used	0.000E+00	---	FRACA( 8)
R017	Ring 9	not used	0.000E+00	---	FRACA( 9)
R017	Ring 10	not used	0.000E+00	---	FRACA(10)
R017	Ring 11	not used	0.000E+00	---	FRACA(11)
R017	Ring 12	not used	0.000E+00	---	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	2.240E+02	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	4.280E+01	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	2.330E+02	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	6.510E+01	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	not used	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	not used	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	1.830E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	4.780E+02	5.100E+02	---	DWI
R018	Contamination fraction of drinking water	1.000E+00	1.000E+00	---	FDW
R018	Contamination fraction of household water	not used	1.000E+00	---	FHHW
R018	Contamination fraction of livestock water	1.000E+00	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	1.000E+00	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	-1	-1	0.500E+00	FPLANT
R018	Contamination fraction of meat	-1	-1	0.100E+01	FMEAT

Summary : RESRAD Default Parameters

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R018	Contamination fraction of milk	-1	-1	0.100E+01	FMILK
R019	Livestock fodder intake for meat (kg/day)	2.710E+01	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	6.321E+01	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	5.060E+01	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	6.000E+01	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	7.000E-01	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	4.000E-04	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	2.300E-01	1.500E-01	---	DM
R019	Depth of roots (m)	1.230E+00	9.000E-01	---	DROOT
R019	Drinking water fraction from ground water	1.000E+00	1.000E+00	---	FGWDW
R019	Household water fraction from ground water	not used	1.000E+00	---	FGWHH
R019	Livestock water fraction from ground water	1.000E+00	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	1.000E+00	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	1.750E+00	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	2.890E+00	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	1.890E+00	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	2.460E-01	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	1.230E-01	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	8.200E-02	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	1.000E-01	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	1.000E+00	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	1.000E+00	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	3.500E-01	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	3.500E-01	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	3.500E-01	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	3.500E-01	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	5.800E-01	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	3.500E-01	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	3.300E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	2.000E-05	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	3.000E-02	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	2.000E-02	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	9.800E-01	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	3.000E-01	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	7.000E-07	7.000E-07	---	EVSN
C14	C-12 evasion flux rate from soil (1/sec)	1.000E-10	1.000E-10	---	REVSN
C14	Fraction of grain in beef cattle feed	9.000E-02	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	3.000E-02	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)

Summary : RESRAD Default Parameters

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	not used	3.000E-07	---	DIFFL
R021	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
R021	Height of the building (room) (m)	not used	2.500E+00	---	HRM
R021	Building interior area factor	not used	0.000E+00	---	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA(1)
R021	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA(2)
TITL	Number of graphical time points	128	---	---	NPTS
TITL	Maximum number of integration points for dose	17	---	---	LYMAX
TITL	Maximum number of integration points for risk	1	---	---	KYMAX

## Summary of Pathway Selections

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

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.RAD

Contaminated Zone Dimensions	Initial Soil Concentrations, pCi/g
Area: 79600.00 square meters	Am-241 1.000E+00
Thickness: 0.15 meters	C-14 1.000E+00
Cover Depth: 0.00 meters	Ce-144 1.000E+00
	Cm-243 1.000E+00
	Cm-244 1.000E+00
	Co-58 1.000E+00
	Co-60 1.000E+00
	Cs-134 1.000E+00
	Cs-137 1.000E+00
	Eu-152 1.000E+00
	Eu-154 1.000E+00
	Eu-155 1.000E+00
	Fe-55 1.000E+00
	H-3 1.000E+00
	Ni-59 1.000E+00
	Ni-63 1.000E+00
	Np-237 1.000E+00
	Pu-238 1.000E+00
	Pu-239 1.000E+00
	Pu-240 1.000E+00
	Pu-241 1.000E+00
	Sb-125 1.000E+00
	Sr-90 1.000E+00
	Tc-99 1.000E+00

Total Dose TDOSE(t), mrem/yr

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

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

t (years):	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	2.705E+01	2.307E+01	1.885E+01	1.175E+01	7.540E+00	5.753E+00	5.293E+00	3.429E-03
M(t):	1.082E+00	9.230E-01	7.539E-01	4.698E-01	3.016E-01	2.301E-01	2.117E-01	1.372E-04

Maximum TDOSE(t): 2.705E+01 mrem/yr at t = 0.000E+00 years

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	2.102E-02	0.0008	7.211E-03	0.0003	0.000E+00	0.0000	1.087E-01	0.0040	6.274E-03	0.0002	1.298E-03	0.0000	3.377E-02	0.0012
C-14	2.981E-07	0.0000	2.460E-05	0.0000	0.000E+00	0.0000	1.758E-01	0.0065	1.528E-01	0.0056	8.825E-02	0.0033	8.937E-07	0.0000
Ce-144	8.990E-02	0.0033	4.027E-06	0.0000	0.000E+00	0.0000	8.971E-04	0.0000	1.617E-05	0.0000	7.667E-05	0.0000	1.299E-04	0.0000
Cm-243	2.644E-01	0.0098	4.931E-03	0.0002	0.000E+00	0.0000	7.414E-02	0.0027	3.041E-03	0.0001	1.032E-03	0.0000	2.303E-02	0.0009
Cm-244	5.981E-05	0.0000	3.956E-03	0.0001	0.000E+00	0.0000	5.926E-02	0.0022	2.431E-03	0.0001	8.246E-04	0.0000	1.840E-02	0.0007
Co-58	6.816E-01	0.0252	4.823E-08	0.0000	0.000E+00	0.0000	2.311E-03	0.0001	3.556E-03	0.0001	1.154E-03	0.0000	9.048E-06	0.0000
Co-60	6.116E+00	0.2261	3.336E-06	0.0000	0.000E+00	0.0000	5.973E-02	0.0022	9.198E-02	0.0034	2.986E-02	0.0011	2.341E-04	0.0000
Cs-134	3.412E+00	0.1261	6.379E-07	0.0000	0.000E+00	0.0000	7.913E-02	0.0029	1.898E-01	0.0070	2.103E-01	0.0078	5.781E-04	0.0000
Cs-137	1.439E+00	0.0532	5.126E-07	0.0000	0.000E+00	0.0000	6.282E-02	0.0023	1.507E-01	0.0056	1.670E-01	0.0062	4.589E-04	0.0000
Eu-152	2.821E+00	0.1043	3.501E-06	0.0000	0.000E+00	0.0000	4.327E-04	0.0000	7.759E-04	0.0000	8.045E-05	0.0000	5.863E-05	0.0000
Eu-154	3.039E+00	0.1123	4.471E-06	0.0000	0.000E+00	0.0000	6.293E-04	0.0000	1.129E-03	0.0000	1.170E-04	0.0000	8.528E-05	0.0000
Eu-155	8.083E-02	0.0030	6.281E-07	0.0000	0.000E+00	0.0000	9.785E-05	0.0000	1.755E-04	0.0000	1.819E-05	0.0000	1.326E-05	0.0000
Fe-55	0.000E+00	0.0000	3.857E-08	0.0000	0.000E+00	0.0000	1.600E-05	0.0000	6.340E-04	0.0000	2.802E-05	0.0000	4.971E-06	0.0000
H-3	0.000E+00	0.0000	7.488E-05	0.0000	0.000E+00	0.0000	7.507E-04	0.0000	1.317E-04	0.0000	8.721E-04	0.0000	1.135E-07	0.0000
Ni-59	0.000E+00	0.0000	4.386E-08	0.0000	0.000E+00	0.0000	3.110E-04	0.0000	9.575E-05	0.0000	1.807E-03	0.0001	1.948E-06	0.0000
Ni-63	0.000E+00	0.0000	1.019E-07	0.0000	0.000E+00	0.0000	8.518E-04	0.0000	2.623E-04	0.0000	4.948E-03	0.0002	5.337E-06	0.0000
Np-237	4.875E-01	0.0180	8.651E-03	0.0003	0.000E+00	0.0000	2.611E+00	0.0965	2.619E-01	0.0097	1.214E-02	0.0004	4.066E-02	0.0015
Pu-238	7.257E-05	0.0000	6.346E-03	0.0002	0.000E+00	0.0000	9.528E-02	0.0035	1.092E-02	0.0004	4.850E-04	0.0000	2.959E-02	0.0011
Pu-239	1.364E-04	0.0000	6.973E-03	0.0003	0.000E+00	0.0000	1.058E-01	0.0039	1.213E-02	0.0004	5.387E-04	0.0000	3.287E-02	0.0012
Pu-240	7.068E-05	0.0000	6.973E-03	0.0003	0.000E+00	0.0000	1.058E-01	0.0039	1.213E-02	0.0004	5.386E-04	0.0000	3.286E-02	0.0012
Pu-241	2.522E-05	0.0000	1.366E-04	0.0000	0.000E+00	0.0000	2.082E-03	0.0001	2.342E-04	0.0000	1.118E-05	0.0000	6.466E-04	0.0000
Sb-125	9.324E-01	0.0345	1.904E-07	0.0000	0.000E+00	0.0000	4.749E-03	0.0002	4.271E-04	0.0000	2.089E-04	0.0000	2.740E-05	0.0000
Sr-90	1.093E-02	0.0004	2.100E-05	0.0000	0.000E+00	0.0000	1.445E+00	0.0534	3.091E-01	0.0114	4.847E-01	0.0179	1.401E-03	0.0001
Tc-99	4.096E-05	0.0000	9.249E-08	0.0000	0.000E+00	0.0000	1.518E-01	0.0056	3.565E-04	0.0000	2.852E-02	0.0011	9.271E-06	0.0000
Total	1.940E+01	0.7169	4.531E-02	0.0017	0.000E+00	0.0000	5.147E+00	0.1903	1.211E+00	0.0448	1.035E+00	0.0382	2.148E-01	0.0079



Summary : RESRAD Default Parameters

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Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

## Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.783E-01	0.0066
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.169E-01	0.0154
Ce-144	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.103E-02	0.0034
Cm-243	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.705E-01	0.0137
Cm-244	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.493E-02	0.0031
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.886E-01	0.0255
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.298E+00	0.2328
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.892E+00	0.1438
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.819E+00	0.0673
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.823E+00	0.1043
Eu-154	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.041E+00	0.1124
Eu-155	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.114E-02	0.0030
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.830E-04	0.0000
H-3	1.772E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.707E-05	0.0000	1.009E-05	0.0000	4.888E-05	0.0000	2.093E-03	0.0001
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.215E-03	0.0001
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.068E-03	0.0002
Np-237	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.422E+00	0.1265
Pu-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	1.427E-01	0.0053
Pu-239	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.585E-01	0.0059
Pu-240	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.584E-01	0.0059
Pu-241	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.136E-03	0.0001
Sb-125	1.033E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.745E-05	0.0000	4.338E-05	0.0000	2.195E-05	0.0000	9.390E-01	0.0347
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.251E+00	0.0832
Tc-99	2.579E-03	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	8.490E-04	0.0000	3.659E-06	0.0000	2.407E-04	0.0000	1.844E-01	0.0068
Total	3.789E-03	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	9.635E-04	0.0000	5.713E-05	0.0000	3.115E-04	0.0000	2.705E+01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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 = 1.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	2.099E-02	0.0009	7.162E-03	0.0003	0.000E+00	0.0000	1.080E-01	0.0047	6.232E-03	0.0003	1.289E-03	0.0001	3.354E-02	0.0015
C-14	7.354E-17	0.0000	6.038E-15	0.0000	0.000E+00	0.0000	1.086E-10	0.0000	7.090E-10	0.0000	2.304E-10	0.0000	2.194E-16	0.0000
Ce-144	3.685E-02	0.0016	1.644E-06	0.0000	0.000E+00	0.0000	3.663E-04	0.0000	6.604E-06	0.0000	3.131E-05	0.0000	5.302E-05	0.0000
Cm-243	2.578E-01	0.0112	4.788E-03	0.0002	0.000E+00	0.0000	7.199E-02	0.0031	2.953E-03	0.0001	1.002E-03	0.0000	2.236E-02	0.0010
Cm-244	5.757E-05	0.0000	3.789E-03	0.0002	0.000E+00	0.0000	5.675E-02	0.0025	2.329E-03	0.0001	7.896E-04	0.0000	1.763E-02	0.0008
Co-58	1.905E-02	0.0008	1.343E-09	0.0000	0.000E+00	0.0000	6.439E-05	0.0000	9.906E-05	0.0000	3.215E-05	0.0000	2.520E-07	0.0000
Co-60	5.353E+00	0.2320	2.910E-06	0.0000	0.000E+00	0.0000	5.211E-02	0.0023	8.024E-02	0.0035	2.605E-02	0.0011	2.042E-04	0.0000
Cs-134	2.434E+00	0.1055	4.534E-07	0.0000	0.000E+00	0.0000	5.625E-02	0.0024	1.350E-01	0.0058	1.495E-01	0.0065	4.109E-04	0.0000
Cs-137	1.404E+00	0.0608	4.983E-07	0.0000	0.000E+00	0.0000	6.107E-02	0.0026	1.465E-01	0.0063	1.623E-01	0.0070	4.462E-04	0.0000
Eu-152	2.674E+00	0.1159	3.306E-06	0.0000	0.000E+00	0.0000	4.087E-04	0.0000	7.329E-04	0.0000	7.598E-05	0.0000	5.538E-05	0.0000
Eu-154	2.805E+00	0.1215	4.111E-06	0.0000	0.000E+00	0.0000	5.787E-04	0.0000	1.038E-03	0.0000	1.076E-04	0.0000	7.841E-05	0.0000
Eu-155	7.027E-02	0.0030	5.434E-07	0.0000	0.000E+00	0.0000	8.465E-05	0.0000	1.518E-04	0.0000	1.574E-05	0.0000	1.147E-05	0.0000
Fe-55	0.000E+00	0.0000	2.967E-08	0.0000	0.000E+00	0.0000	1.231E-05	0.0000	4.878E-04	0.0000	2.156E-05	0.0000	3.825E-06	0.0000
H-3	0.000E+00	0.0000	4.049E-07	0.0000	0.000E+00	0.0000	4.441E-06	0.0000	1.048E-06	0.0000	6.333E-06	0.0000	6.139E-10	0.0000
Ni-59	0.000E+00	0.0000	4.357E-08	0.0000	0.000E+00	0.0000	3.089E-04	0.0000	9.513E-05	0.0000	1.795E-03	0.0001	1.936E-06	0.0000
Ni-63	0.000E+00	0.0000	1.006E-07	0.0000	0.000E+00	0.0000	8.410E-04	0.0000	2.589E-04	0.0000	4.886E-03	0.0002	5.269E-06	0.0000
Np-237	4.729E-01	0.0205	8.357E-03	0.0004	0.000E+00	0.0000	2.523E+00	0.1093	2.531E-01	0.0110	1.173E-02	0.0005	3.928E-02	0.0017
Pu-238	7.197E-05	0.0000	6.263E-03	0.0003	0.000E+00	0.0000	9.402E-02	0.0041	1.078E-02	0.0005	4.787E-04	0.0000	2.920E-02	0.0013
Pu-239	1.363E-04	0.0000	6.935E-03	0.0003	0.000E+00	0.0000	1.052E-01	0.0046	1.206E-02	0.0005	5.358E-04	0.0000	3.269E-02	0.0014
Pu-240	7.065E-05	0.0000	6.935E-03	0.0003	0.000E+00	0.0000	1.052E-01	0.0046	1.206E-02	0.0005	5.357E-04	0.0000	3.269E-02	0.0014
Pu-241	5.691E-05	0.0000	1.407E-04	0.0000	0.000E+00	0.0000	2.143E-03	0.0001	2.318E-04	0.0000	1.262E-05	0.0000	6.655E-04	0.0000
Sb-125	7.237E-01	0.0314	1.500E-07	0.0000	0.000E+00	0.0000	4.449E-03	0.0002	4.018E-04	0.0000	2.015E-04	0.0000	2.198E-05	0.0000
Sr-90	1.064E-02	0.0005	2.037E-05	0.0000	0.000E+00	0.0000	1.401E+00	0.0607	2.999E-01	0.0130	4.702E-01	0.0204	1.359E-03	0.0001
Tc-99	1.811E-05	0.0000	4.069E-08	0.0000	0.000E+00	0.0000	6.715E-02	0.0029	1.612E-04	0.0000	1.280E-02	0.0006	4.079E-06	0.0000
Total	1.628E+01	0.7056	4.440E-02	0.0019	0.000E+00	0.0000	4.711E+00	0.2042	9.648E-01	0.0418	8.444E-01	0.0366	2.107E-01	0.0091

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

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.772E-01	0.0077
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.048E-09	0.0000
Ce-144	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.731E-02	0.0016
Cm-243	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.609E-01	0.0156
Cm-244	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.134E-02	0.0035
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.925E-02	0.0008
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.511E+00	0.2389
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.775E+00	0.1203
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.774E+00	0.0769
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.675E+00	0.1159
Eu-154	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.807E+00	0.1216
Eu-155	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.053E-02	0.0031
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.255E-04	0.0000
H-3	2.821E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.565E-05	0.0000	1.805E-05	0.0000	8.137E-05	0.0000	4.394E-04	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.201E-03	0.0001
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.991E-03	0.0003
Np-237	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.308E+00	0.1434
Pu-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	1.408E-01	0.0061
Pu-239	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.576E-01	0.0068
Pu-240	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.575E-01	0.0068
Pu-241	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.250E-03	0.0001
Sb-125	1.925E-03	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	1.690E-04	0.0000	9.739E-05	0.0000	4.554E-05	0.0000	7.310E-01	0.0317
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.184E+00	0.0946
Tc-99	9.630E-03	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.388E-03	0.0001	1.735E-05	0.0000	1.060E-03	0.0000	9.423E-02	0.0041
Total	1.184E-02	0.0005	0.000E+00	0.0000	0.000E+00	0.0000	3.602E-03	0.0002	1.328E-04	0.0000	1.187E-03	0.0001	2.307E+01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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 = 3.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	2.091E-02	0.0011	7.063E-03	0.0004	0.000E+00	0.0000	1.065E-01	0.0057	6.146E-03	0.0003	1.271E-03	0.0001	3.307E-02	0.0018
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.540E-30	0.0000	4.270E-29	0.0000	1.388E-29	0.0000	0.000E+00	0.0000
Ce-144	6.190E-03	0.0003	2.741E-07	0.0000	0.000E+00	0.0000	6.107E-05	0.0000	1.101E-06	0.0000	5.220E-06	0.0000	8.840E-06	0.0000
Cm-243	2.452E-01	0.0130	4.514E-03	0.0002	0.000E+00	0.0000	6.788E-02	0.0036	2.785E-03	0.0001	9.445E-04	0.0001	2.108E-02	0.0011
Cm-244	5.334E-05	0.0000	3.475E-03	0.0002	0.000E+00	0.0000	5.205E-02	0.0028	2.138E-03	0.0001	7.241E-04	0.0000	1.617E-02	0.0009
Co-58	1.488E-05	0.0000	1.041E-12	0.0000	0.000E+00	0.0000	4.993E-08	0.0000	7.681E-08	0.0000	2.493E-08	0.0000	1.954E-10	0.0000
Co-60	4.101E+00	0.2176	2.214E-06	0.0000	0.000E+00	0.0000	3.964E-02	0.0021	6.105E-02	0.0032	1.982E-02	0.0011	1.553E-04	0.0000
Cs-134	1.239E+00	0.0657	2.291E-07	0.0000	0.000E+00	0.0000	2.842E-02	0.0015	6.818E-02	0.0036	7.553E-02	0.0040	2.076E-04	0.0000
Cs-137	1.337E+00	0.0709	4.709E-07	0.0000	0.000E+00	0.0000	5.771E-02	0.0031	1.385E-01	0.0073	1.534E-01	0.0081	4.216E-04	0.0000
Eu-152	2.402E+00	0.1275	2.949E-06	0.0000	0.000E+00	0.0000	3.645E-04	0.0000	6.537E-04	0.0000	6.777E-05	0.0000	4.940E-05	0.0000
Eu-154	2.388E+00	0.1267	3.476E-06	0.0000	0.000E+00	0.0000	4.892E-04	0.0000	8.774E-04	0.0000	9.096E-05	0.0000	6.630E-05	0.0000
Eu-155	5.311E-02	0.0028	4.067E-07	0.0000	0.000E+00	0.0000	6.335E-05	0.0000	1.136E-04	0.0000	1.178E-05	0.0000	8.585E-06	0.0000
Fe-55	0.000E+00	0.0000	1.757E-08	0.0000	0.000E+00	0.0000	7.290E-06	0.0000	2.888E-04	0.0000	1.276E-05	0.0000	2.264E-06	0.0000
H-3	0.000E+00	0.0000	1.184E-11	0.0000	0.000E+00	0.0000	1.298E-10	0.0000	3.063E-11	0.0000	1.852E-10	0.0000	1.795E-14	0.0000
Ni-59	0.000E+00	0.0000	4.299E-08	0.0000	0.000E+00	0.0000	3.049E-04	0.0000	9.388E-05	0.0000	1.771E-03	0.0001	1.910E-06	0.0000
Ni-63	0.000E+00	0.0000	9.801E-08	0.0000	0.000E+00	0.0000	8.196E-04	0.0000	2.524E-04	0.0000	4.762E-03	0.0003	5.135E-06	0.0000
Np-237	4.450E-01	0.0236	7.798E-03	0.0004	0.000E+00	0.0000	2.354E+00	0.1249	2.362E-01	0.0125	1.095E-02	0.0006	3.665E-02	0.0019
Pu-238	7.079E-05	0.0000	6.098E-03	0.0003	0.000E+00	0.0000	9.156E-02	0.0049	1.049E-02	0.0006	4.662E-04	0.0000	2.844E-02	0.0015
Pu-239	1.360E-04	0.0000	6.860E-03	0.0004	0.000E+00	0.0000	1.041E-01	0.0055	1.193E-02	0.0006	5.300E-04	0.0000	3.234E-02	0.0017
Pu-240	7.059E-05	0.0000	6.858E-03	0.0004	0.000E+00	0.0000	1.041E-01	0.0055	1.193E-02	0.0006	5.298E-04	0.0000	3.233E-02	0.0017
Pu-241	1.157E-04	0.0000	1.481E-04	0.0000	0.000E+00	0.0000	2.251E-03	0.0001	2.271E-04	0.0000	1.523E-05	0.0000	6.992E-04	0.0000
Sb-125	4.358E-01	0.0231	8.961E-08	0.0000	0.000E+00	0.0000	2.660E-03	0.0001	2.403E-04	0.0000	1.205E-04	0.0000	1.314E-05	0.0000
Sr-90	1.010E-02	0.0005	1.916E-05	0.0000	0.000E+00	0.0000	1.318E+00	0.0699	2.821E-01	0.0150	4.423E-01	0.0235	1.278E-03	0.0001
Tc-99	3.541E-06	0.0000	7.877E-09	0.0000	0.000E+00	0.0000	1.300E-02	0.0007	3.121E-05	0.0000	2.477E-03	0.0001	7.896E-07	0.0000
Total	1.268E+01	0.6730	4.284E-02	0.0023	0.000E+00	0.0000	4.344E+00	0.2305	8.342E-01	0.0443	7.158E-01	0.0380	2.030E-01	0.0108

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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 = 3.000E+00 years

## Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.750E-01	0.0093
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.312E-29	0.0000
Ce-144	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.266E-03	0.0003
Cm-243	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.424E-01	0.0182
Cm-244	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.461E-02	0.0040
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.503E-05	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.221E+00	0.2240
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.412E+00	0.0749
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.686E+00	0.0895
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.404E+00	0.1275
Eu-154	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.390E+00	0.1268
Eu-155	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.330E-02	0.0028
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.111E-04	0.0000
H-3	2.532E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.102E-05	0.0000	1.623E-05	0.0000	7.310E-05	0.0000	3.836E-04	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.172E-03	0.0001
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.839E-03	0.0003
Np-237	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.091E+00	0.1640
Pu-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	1.371E-01	0.0073
Pu-239	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.559E-01	0.0083
Pu-240	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.558E-01	0.0083
Pu-241	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.457E-03	0.0002
Sb-125	1.205E-03	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	1.060E-04	0.0000	6.165E-05	0.0000	2.870E-05	0.0000	4.402E-01	0.0234
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.054E+00	0.1090
Tc-99	1.451E-02	0.0008	0.000E+00	0.0000	0.000E+00	0.0000	5.181E-03	0.0003	2.757E-05	0.0000	1.657E-03	0.0001	3.689E-02	0.0020
Total	1.597E-02	0.0008	0.000E+00	0.0000	0.000E+00	0.0000	5.328E-03	0.0003	1.055E-04	0.0000	1.759E-03	0.0001	1.885E+01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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 = 1.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	2.064E-02	0.0018	6.722E-03	0.0006	0.000E+00	0.0000	1.014E-01	0.0086	5.850E-03	0.0005	1.210E-03	0.0001	3.148E-02	0.0027
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ce-144	1.202E-05	0.0000	5.183E-10	0.0000	0.000E+00	0.0000	1.155E-07	0.0000	2.081E-09	0.0000	9.867E-09	0.0000	1.671E-08	0.0000
Cm-243	2.057E-01	0.0175	3.671E-03	0.0003	0.000E+00	0.0000	5.520E-02	0.0047	2.266E-03	0.0002	7.680E-04	0.0001	1.714E-02	0.0015
Cm-244	4.085E-05	0.0000	2.566E-03	0.0002	0.000E+00	0.0000	3.845E-02	0.0033	1.584E-03	0.0001	5.342E-04	0.0000	1.194E-02	0.0010
Co-58	1.982E-16	0.0000	1.351E-23	0.0000	0.000E+00	0.0000	6.477E-19	0.0000	9.965E-19	0.0000	3.234E-19	0.0000	2.535E-21	0.0000
Co-60	1.612E+00	0.1373	8.497E-07	0.0000	0.000E+00	0.0000	1.522E-02	0.0013	2.343E-02	0.0020	7.607E-03	0.0006	5.962E-05	0.0000
Cs-134	1.166E-01	0.0099	2.099E-08	0.0000	0.000E+00	0.0000	2.603E-03	0.0002	6.246E-03	0.0005	6.919E-03	0.0006	1.902E-05	0.0000
Cs-137	1.125E+00	0.0958	3.859E-07	0.0000	0.000E+00	0.0000	4.729E-02	0.0040	1.135E-01	0.0097	1.257E-01	0.0107	3.455E-04	0.0000
Eu-152	1.650E+00	0.1405	1.975E-06	0.0000	0.000E+00	0.0000	2.441E-04	0.0000	4.378E-04	0.0000	4.539E-05	0.0000	3.308E-05	0.0000
Eu-154	1.360E+00	0.1158	1.930E-06	0.0000	0.000E+00	0.0000	2.717E-04	0.0000	4.872E-04	0.0000	5.051E-05	0.0000	3.681E-05	0.0000
Eu-155	1.992E-02	0.0017	1.474E-07	0.0000	0.000E+00	0.0000	2.296E-05	0.0000	4.117E-05	0.0000	4.268E-06	0.0000	3.111E-06	0.0000
Fe-55	0.000E+00	0.0000	2.801E-09	0.0000	0.000E+00	0.0000	1.163E-06	0.0000	4.605E-05	0.0000	2.035E-06	0.0000	3.610E-07	0.0000
H-3	0.000E+00	0.0000	1.598E-27	0.0000	0.000E+00	0.0000	1.753E-26	0.0000	4.136E-27	0.0000	2.500E-26	0.0000	2.423E-30	0.0000
Ni-59	0.000E+00	0.0000	4.100E-08	0.0000	0.000E+00	0.0000	2.907E-04	0.0000	8.953E-05	0.0000	1.689E-03	0.0001	1.822E-06	0.0000
Ni-63	0.000E+00	0.0000	8.950E-08	0.0000	0.000E+00	0.0000	7.485E-04	0.0001	2.305E-04	0.0000	4.348E-03	0.0004	4.689E-06	0.0000
Np-237	3.597E-01	0.0306	6.115E-03	0.0005	0.000E+00	0.0000	1.846E+00	0.1572	1.853E-01	0.0158	8.586E-03	0.0007	2.874E-02	0.0024
Pu-238	6.681E-05	0.0000	5.551E-03	0.0005	0.000E+00	0.0000	8.334E-02	0.0071	9.552E-03	0.0008	4.247E-04	0.0000	2.588E-02	0.0022
Pu-239	1.351E-04	0.0000	6.598E-03	0.0006	0.000E+00	0.0000	1.001E-01	0.0085	1.148E-02	0.0010	5.097E-04	0.0000	3.110E-02	0.0026
Pu-240	7.037E-05	0.0000	6.593E-03	0.0006	0.000E+00	0.0000	1.001E-01	0.0085	1.147E-02	0.0010	5.093E-04	0.0000	3.108E-02	0.0026
Pu-241	2.801E-04	0.0000	1.661E-04	0.0000	0.000E+00	0.0000	2.517E-03	0.0002	2.120E-04	0.0000	2.205E-05	0.0000	7.818E-04	0.0001
Sb-125	7.379E-02	0.0063	1.477E-08	0.0000	0.000E+00	0.0000	4.383E-04	0.0000	3.960E-05	0.0000	1.986E-05	0.0000	2.165E-06	0.0000
Sr-90	8.393E-03	0.0007	1.546E-05	0.0000	0.000E+00	0.0000	1.064E+00	0.0906	2.276E-01	0.0194	3.569E-01	0.0304	1.031E-03	0.0001
Tc-99	1.170E-08	0.0000	2.512E-11	0.0000	0.000E+00	0.0000	4.144E-05	0.0000	9.952E-08	0.0000	7.899E-06	0.0000	2.517E-09	0.0000
Total	6.553E+00	0.5579	3.800E-02	0.0032	0.000E+00	0.0000	3.458E+00	0.2944	5.998E-01	0.0511	5.158E-01	0.0439	1.797E-01	0.0153

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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 = 1.000E+01 years

## Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	1.200E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.351E-09	0.0000	1.839E-09	0.0000	1.090E-10	0.0000	1.673E-01	0.0142
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ce-144	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.216E-05	0.0000
Cm-243	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.847E-01	0.0242
Cm-244	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.511E-02	0.0047
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.001E-16	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.659E+00	0.1412
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.323E-01	0.0113
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.412E+00	0.1202
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.651E+00	0.1406
Eu-154	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.361E+00	0.1159
Eu-155	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.999E-02	0.0017
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.961E-05	0.0000
H-3	1.728E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.798E-05	0.0000	1.107E-05	0.0000	4.988E-05	0.0000	2.617E-04	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.071E-03	0.0002
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.332E-03	0.0005
Np-237	3.444E-01	0.0293	0.000E+00	0.0000	0.000E+00	0.0000	2.703E-02	0.0023	5.525E-03	0.0005	3.223E-04	0.0000	2.812E+00	0.2394
Pu-238	1.268E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.434E-25	0.0000	5.219E-25	0.0000	2.273E-25	0.0000	1.248E-01	0.0106
Pu-239	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.500E-01	0.0128
Pu-240	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.498E-01	0.0128
Pu-241	1.397E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.082E-11	0.0000	2.055E-12	0.0000	1.235E-13	0.0000	3.979E-03	0.0003
Sb-125	2.174E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.913E-05	0.0000	1.112E-05	0.0000	5.177E-06	0.0000	7.454E-02	0.0063
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.658E+00	0.1411
Tc-99	1.568E-02	0.0013	0.000E+00	0.0000	0.000E+00	0.0000	5.609E-03	0.0005	3.001E-05	0.0000	1.800E-03	0.0002	2.317E-02	0.0020
Total	3.605E-01	0.0307	0.000E+00	0.0000	0.000E+00	0.0000	3.268E-02	0.0028	5.577E-03	0.0005	2.178E-03	0.0002	1.175E+01	1.0000

\*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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 = 3.000E+01 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	1.990E-02	0.0026	5.789E-03	0.0008	0.000E+00	0.0000	8.729E-02	0.0116	5.038E-03	0.0007	1.042E-03	0.0001	2.711E-02	0.0036
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ce-144	2.136E-13	0.0000	8.508E-18	0.0000	0.000E+00	0.0000	1.895E-15	0.0000	3.417E-17	0.0000	1.620E-16	0.0000	2.744E-16	0.0000
Cm-243	1.240E-01	0.0164	2.018E-03	0.0003	0.000E+00	0.0000	3.034E-02	0.0040	1.249E-03	0.0002	4.218E-04	0.0001	9.424E-03	0.0012
Cm-244	1.910E-05	0.0000	1.074E-03	0.0001	0.000E+00	0.0000	1.610E-02	0.0021	6.728E-04	0.0001	2.225E-04	0.0000	5.000E-03	0.0007
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	1.113E-01	0.0148	5.464E-08	0.0000	0.000E+00	0.0000	9.784E-04	0.0001	1.507E-03	0.0002	4.892E-04	0.0001	3.834E-06	0.0000
Cs-134	1.352E-04	0.0000	2.251E-11	0.0000	0.000E+00	0.0000	2.792E-06	0.0000	6.700E-06	0.0000	7.422E-06	0.0000	2.040E-08	0.0000
Cs-137	6.842E-01	0.0907	2.168E-07	0.0000	0.000E+00	0.0000	2.657E-02	0.0035	6.375E-02	0.0085	7.062E-02	0.0094	1.941E-04	0.0000
Eu-152	5.611E-01	0.0744	6.230E-07	0.0000	0.000E+00	0.0000	7.700E-05	0.0000	1.381E-04	0.0000	1.432E-05	0.0000	1.043E-05	0.0000
Eu-154	2.706E-01	0.0359	3.564E-07	0.0000	0.000E+00	0.0000	5.017E-05	0.0000	8.998E-05	0.0000	9.328E-06	0.0000	6.798E-06	0.0000
Eu-155	1.208E-03	0.0002	8.037E-09	0.0000	0.000E+00	0.0000	1.252E-06	0.0000	2.246E-06	0.0000	2.328E-07	0.0000	1.697E-07	0.0000
Fe-55	0.000E+00	0.0000	1.465E-11	0.0000	0.000E+00	0.0000	6.079E-09	0.0000	2.408E-07	0.0000	1.064E-08	0.0000	1.888E-09	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ni-59	0.000E+00	0.0000	3.552E-08	0.0000	0.000E+00	0.0000	2.519E-04	0.0000	7.756E-05	0.0000	1.463E-03	0.0002	1.578E-06	0.0000
Ni-63	0.000E+00	0.0000	6.848E-08	0.0000	0.000E+00	0.0000	5.727E-04	0.0001	1.763E-04	0.0000	3.327E-03	0.0004	3.588E-06	0.0000
Np-237	1.948E-01	0.0258	3.029E-03	0.0004	0.000E+00	0.0000	9.145E-01	0.1213	9.177E-02	0.0122	4.254E-03	0.0006	1.424E-02	0.0019
Pu-238	5.660E-05	0.0000	4.209E-03	0.0006	0.000E+00	0.0000	6.319E-02	0.0084	7.243E-03	0.0010	3.228E-04	0.0000	1.963E-02	0.0026
Pu-239	1.320E-04	0.0000	5.856E-03	0.0008	0.000E+00	0.0000	8.888E-02	0.0118	1.019E-02	0.0014	4.524E-04	0.0001	2.760E-02	0.0037
Pu-240	6.971E-05	0.0000	5.842E-03	0.0008	0.000E+00	0.0000	8.867E-02	0.0118	1.016E-02	0.0013	4.513E-04	0.0001	2.754E-02	0.0037
Pu-241	5.214E-04	0.0001	1.771E-04	0.0000	0.000E+00	0.0000	2.675E-03	0.0004	1.770E-04	0.0000	2.922E-05	0.0000	8.306E-04	0.0001
Sb-125	4.592E-04	0.0001	8.476E-11	0.0000	0.000E+00	0.0000	2.516E-06	0.0000	2.274E-07	0.0000	1.140E-07	0.0000	1.243E-08	0.0000
Sr-90	4.929E-03	0.0007	8.305E-06	0.0000	0.000E+00	0.0000	5.714E-01	0.0758	1.223E-01	0.0162	1.917E-01	0.0254	5.540E-04	0.0001
Tc-99	9.524E-16	0.0000	1.836E-18	0.0000	0.000E+00	0.0000	3.029E-12	0.0000	7.274E-15	0.0000	5.774E-13	0.0000	1.840E-16	0.0000
Total	1.974E+00	0.2617	2.801E-02	0.0037	0.000E+00	0.0000	1.892E+00	0.2509	3.145E-01	0.0417	2.748E-01	0.0364	1.321E-01	0.0175



Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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 = 3.000E+01 years

## Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	1.019E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.042E-07	0.0000	1.699E-07	0.0000	9.783E-09	0.0000	1.462E-01	0.0194
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ce-144	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.160E-13	0.0000
Cm-243	2.487E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.933E-08	0.0000	1.486E-10	0.0000	4.810E-11	0.0000	1.675E-01	0.0222
Cm-244	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.309E-02	0.0031
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.143E-01	0.0152
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.522E-04	0.0000
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.453E-01	0.1121
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.614E-01	0.0745
Eu-154	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.708E-01	0.0359
Eu-155	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.211E-03	0.0002
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.594E-07	0.0000
H-3	1.133E-25	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.204E-26	0.0000	1.056E-26	0.0000	3.892E-26	0.0000	1.848E-25	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.794E-03	0.0002
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.080E-03	0.0005
Np-237	2.646E+00	0.3510	0.000E+00	0.0000	0.000E+00	0.0000	2.091E-01	0.0277	4.434E-02	0.0059	2.549E-03	0.0003	4.125E+00	0.5471
Pu-238	5.129E-19	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.860E-20	0.0000	2.182E-20	0.0000	9.062E-21	0.0000	9.465E-02	0.0126
Pu-239	6.662E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.162E-15	0.0000	1.361E-17	0.0000	7.807E-17	0.0000	1.331E-01	0.0177
Pu-240	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.327E-01	0.0176
Pu-241	9.849E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.771E-09	0.0000	1.637E-09	0.0000	9.436E-11	0.0000	4.410E-03	0.0006
Sb-125	1.676E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.475E-07	0.0000	8.575E-08	0.0000	3.992E-08	0.0000	4.641E-04	0.0001
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.909E-01	0.1181
Tc-99	1.582E-02	0.0021	0.000E+00	0.0000	0.000E+00	0.0000	5.657E-03	0.0008	3.027E-05	0.0000	1.816E-03	0.0002	2.332E-02	0.0031
Total	2.662E+00	0.3531	0.000E+00	0.0000	0.000E+00	0.0000	2.147E-01	0.0285	4.438E-02	0.0059	4.365E-03	0.0006	7.540E+00	1.0000

\*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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 = 1.000E+02 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	1.712E-02	0.0030	2.961E-03	0.0005	0.000E+00	0.0000	4.467E-02	0.0078	2.579E-03	0.0004	5.331E-04	0.0001	1.387E-02	0.0024
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ce-144	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cm-243	1.928E-02	0.0034	2.168E-04	0.0000	0.000E+00	0.0000	3.260E-03	0.0006	1.378E-04	0.0000	4.488E-05	0.0000	1.012E-03	0.0002
Cm-244	1.482E-06	0.0000	5.140E-05	0.0000	0.000E+00	0.0000	7.718E-04	0.0001	4.176E-05	0.0000	9.529E-06	0.0000	2.397E-04	0.0000
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	8.621E-06	0.0000	3.180E-12	0.0000	0.000E+00	0.0000	5.695E-08	0.0000	8.775E-08	0.0000	2.848E-08	0.0000	2.231E-10	0.0000
Cs-134	6.461E-15	0.0000	7.854E-22	0.0000	0.000E+00	0.0000	9.745E-17	0.0000	2.339E-16	0.0000	2.591E-16	0.0000	7.118E-19	0.0000
Cs-137	1.078E-01	0.0187	2.486E-08	0.0000	0.000E+00	0.0000	3.048E-03	0.0005	7.314E-03	0.0013	8.102E-03	0.0014	2.226E-05	0.0000
Eu-152	1.156E-02	0.0020	9.481E-09	0.0000	0.000E+00	0.0000	1.172E-06	0.0000	2.102E-06	0.0000	2.179E-07	0.0000	1.588E-07	0.0000
Eu-154	8.542E-04	0.0001	8.329E-10	0.0000	0.000E+00	0.0000	1.173E-07	0.0000	2.103E-07	0.0000	2.180E-08	0.0000	1.589E-08	0.0000
Eu-155	6.244E-08	0.0000	2.630E-13	0.0000	0.000E+00	0.0000	4.097E-11	0.0000	7.349E-11	0.0000	7.617E-12	0.0000	5.551E-12	0.0000
Fe-55	0.000E+00	0.0000	1.307E-19	0.0000	0.000E+00	0.0000	5.425E-17	0.0000	2.149E-15	0.0000	9.495E-17	0.0000	1.685E-17	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ni-59	0.000E+00	0.0000	1.855E-08	0.0000	0.000E+00	0.0000	1.315E-04	0.0000	4.052E-05	0.0000	7.643E-04	0.0001	8.240E-07	0.0000
Ni-63	0.000E+00	0.0000	2.316E-08	0.0000	0.000E+00	0.0000	1.937E-04	0.0000	5.968E-05	0.0000	1.126E-03	0.0002	1.214E-06	0.0000
Np-237	2.075E-02	0.0036	2.238E-04	0.0000	0.000E+00	0.0000	6.753E-02	0.0117	6.778E-03	0.0012	3.149E-04	0.0001	1.051E-03	0.0002
Pu-238	3.109E-05	0.0000	1.379E-03	0.0002	0.000E+00	0.0000	2.071E-02	0.0036	2.374E-03	0.0004	1.067E-04	0.0000	6.431E-03	0.0011
Pu-239	1.131E-04	0.0000	3.329E-03	0.0006	0.000E+00	0.0000	5.053E-02	0.0088	5.793E-03	0.0010	2.572E-04	0.0000	1.569E-02	0.0027
Pu-240	6.637E-05	0.0000	3.304E-03	0.0006	0.000E+00	0.0000	5.014E-02	0.0087	5.748E-03	0.0010	2.552E-04	0.0000	1.557E-02	0.0027
Pu-241	5.839E-04	0.0001	1.015E-04	0.0000	0.000E+00	0.0000	1.531E-03	0.0003	8.882E-05	0.0000	1.822E-05	0.0000	4.753E-04	0.0001
Sb-125	7.865E-12	0.0000	1.049E-18	0.0000	0.000E+00	0.0000	3.114E-14	0.0000	2.815E-15	0.0000	1.411E-15	0.0000	1.538E-16	0.0000
Sr-90	6.965E-04	0.0001	8.144E-07	0.0000	0.000E+00	0.0000	5.603E-02	0.0097	1.200E-02	0.0021	1.881E-02	0.0033	5.432E-05	0.0000
Tc-99	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	1.789E-01	0.0311	1.157E-02	0.0020	0.000E+00	0.0000	2.986E-01	0.0519	4.295E-02	0.0075	3.034E-02	0.0053	5.442E-02	0.0095

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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 = 1.000E+02 years

## Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	7.830E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.187E-06	0.0000	1.314E-06	0.0000	7.553E-08	0.0000	8.182E-02	0.0142
C-14	1.762E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.616E-07	0.0000	1.202E-07	0.0000	8.825E-08	0.0000	6.462E-07	0.0000
Ce-144	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cm-243	4.053E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.156E-07	0.0000	2.455E-09	0.0000	7.910E-10	0.0000	2.396E-02	0.0042
Cm-244	9.502E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.397E-13	0.0000	3.399E-14	0.0000	3.406E-13	0.0000	1.116E-03	0.0002
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.795E-06	0.0000
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.052E-15	0.0000
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.263E-01	0.0220
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.156E-02	0.0020
Eu-154	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.546E-04	0.0001
Eu-155	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.256E-08	0.0000
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.316E-15	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.372E-04	0.0002
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.380E-03	0.0002
Np-237	4.683E+00	0.8140	0.000E+00	0.0000	0.000E+00	0.0000	3.701E-01	0.0643	7.869E-02	0.0137	4.520E-03	0.0008	5.233E+00	0.9096
Pu-238	6.730E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.240E-08	0.0000	2.412E-09	0.0000	2.414E-08	0.0000	3.103E-02	0.0054
Pu-239	3.326E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.590E-11	0.0000	1.846E-12	0.0000	9.260E-12	0.0000	7.572E-02	0.0132
Pu-240	7.732E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.020E-10	0.0000	2.769E-11	0.0000	2.773E-10	0.0000	7.509E-02	0.0131
Pu-241	1.796E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.419E-07	0.0000	3.014E-08	0.0000	1.732E-09	0.0000	2.800E-03	0.0005
Sb-125	5.127E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.511E-15	0.0000	2.624E-15	0.0000	1.221E-15	0.0000	7.960E-12	0.0000
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.759E-02	0.0152
Tc-99	7.641E-24	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.806E-24	0.0000	1.600E-26	0.0000	9.351E-25	0.0000	1.140E-23	0.0000
Total	4.683E+00	0.8140	0.000E+00	0.0000	0.000E+00	0.0000	3.701E-01	0.0643	7.869E-02	0.0137	4.520E-03	0.0008	5.753E+00	1.0000

\*Sum of all water independent and dependent pathways.

As mrem/yr and Fraction of Total Dose At t = 3.000E+02 years

## Water Independent Pathways (Inhalation excludes radon)

[illegible]

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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 = 3.000E+02 years

## Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	1.272E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.005E-05	0.0000	2.138E-06	0.0000	1.228E-07	0.0000	1.395E-04	0.0000
C-14	1.720E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.553E-07	0.0000	1.173E-07	0.0000	8.615E-08	0.0000	6.308E-07	0.0000
Ce-144	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cm-243	5.796E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.513E-07	0.0000	3.516E-09	0.0000	1.132E-09	0.0000	6.252E-06	0.0000
Cm-244	7.818E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.089E-12	0.0000	2.808E-13	0.0000	2.810E-12	0.0000	8.736E-11	0.0000
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Eu-154	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Eu-155	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ni-59	1.526E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.234E-07	0.0000	1.495E-07	0.0000	2.922E-06	0.0000	4.721E-06	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Np-237	4.825E+00	0.9117	0.000E+00	0.0000	0.000E+00	0.0000	3.814E-01	0.0721	8.109E-02	0.0153	4.659E-03	0.0009	5.293E+00	1.0000
Pu-238	2.519E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.962E-07	0.0000	9.292E-09	0.0000	9.042E-08	0.0000	2.815E-06	0.0000
Pu-239	2.315E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.804E-10	0.0000	1.815E-11	0.0000	4.820E-11	0.0000	2.562E-09	0.0000
Pu-240	3.952E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.078E-09	0.0000	1.419E-10	0.0000	1.420E-09	0.0000	4.416E-08	0.0000
Pu-241	3.418E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.701E-07	0.0000	5.743E-08	0.0000	3.300E-09	0.0000	3.748E-06	0.0000
Sb-125	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Sr-90	5.543E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.411E-07	0.0000	7.740E-07	0.0000	9.288E-07	0.0000	7.787E-06	0.0000
Tc-99	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	4.826E+00	0.9117	0.000E+00	0.0000	0.000E+00	0.0000	3.814E-01	0.0721	8.110E-02	0.0153	4.664E-03	0.0009	5.293E+00	1.0000

\*Sum of all water independent and dependent pathways.

As mrem/yr and Fraction of Total Dose At t = 1.000E+03 years

## Water Independent Pathways (Inhalation excludes radon)

[illegible]

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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 = 1.000E+03 years

## Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	3.595E-06	0.0010	0.000E+00	0.0000	0.000E+00	0.0000	2.841E-07	0.0001	6.040E-08	0.0000	3.512E-09	0.0000	3.943E-06	0.0011
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ce-144	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cm-243	6.675E-06	0.0019	0.000E+00	0.0000	0.000E+00	0.0000	5.198E-07	0.0002	4.795E-09	0.0000	1.164E-09	0.0000	7.201E-06	0.0021
Cm-244	3.142E-06	0.0009	0.000E+00	0.0000	0.000E+00	0.0000	2.447E-07	0.0001	3.782E-09	0.0000	2.661E-10	0.0000	3.391E-06	0.0010
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Eu-152	1.377E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.072E-19	0.0000	2.909E-20	0.0000	1.650E-21	0.0000	1.515E-18	0.0000
Eu-154	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Eu-155	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ni-59	1.650E-06	0.0005	0.000E+00	0.0000	0.000E+00	0.0000	1.335E-07	0.0000	1.617E-07	0.0000	3.160E-06	0.0009	5.105E-06	0.0015
Ni-63	1.198E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.686E-11	0.0000	1.173E-10	0.0000	2.293E-09	0.0000	3.705E-09	0.0000
Np-237	4.270E-05	0.0125	0.000E+00	0.0000	0.000E+00	0.0000	3.327E-06	0.0010	1.533E-07	0.0000	1.534E-06	0.0004	4.772E-05	0.0139
Pu-238	3.261E-06	0.0010	0.000E+00	0.0000	0.000E+00	0.0000	2.538E-07	0.0001	1.517E-08	0.0000	9.508E-08	0.0000	3.625E-06	0.0011
Pu-239	1.616E-03	0.4712	0.000E+00	0.0000	0.000E+00	0.0000	1.258E-04	0.0367	1.945E-06	0.0006	1.346E-07	0.0000	1.744E-03	0.5085
Pu-240	1.496E-03	0.4362	0.000E+00	0.0000	0.000E+00	0.0000	1.165E-04	0.0340	1.801E-06	0.0005	1.268E-07	0.0000	1.614E-03	0.4707
Pu-241	1.313E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.038E-08	0.0000	2.206E-09	0.0000	1.279E-10	0.0000	1.440E-07	0.0000
Sb-125	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Sr-90	3.405E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.324E-14	0.0000	4.756E-14	0.0000	5.707E-14	0.0000	4.784E-13	0.0000
Tc-99	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	3.173E-03	0.9253	0.000E+00	0.0000	0.000E+00	0.0000	2.471E-04	0.0721	4.148E-06	0.0012	5.057E-06	0.0015	3.429E-03	1.0000

\*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.RAD

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
Am-241	Am-241	1.000E+00	1.783E-01	1.772E-01	1.750E-01	1.672E-01	1.461E-01	8.172E-02	0.000E+00	0.000E+00
Am-241	Np-237+D	1.000E+00	5.277E-07	1.606E-06	3.644E-06	9.706E-06	3.011E-05	1.030E-04	1.395E-04	3.941E-06
Am-241	U-233	1.000E+00	1.373E-14	7.819E-14	3.586E-13	2.673E-12	1.904E-11	1.809E-10	1.026E-09	1.329E-09
Am-241	Th-229+D	1.000E+00	4.947E-18	7.137E-17	8.071E-16	1.976E-14	3.898E-13	6.449E-12	1.157E-14	1.233E-12
Am-241	ΣDSR(j)		1.783E-01	1.772E-01	1.750E-01	1.673E-01	1.462E-01	8.182E-02	1.395E-04	3.943E-06
C-14	C-14	1.000E+00	4.169E-01	1.048E-09	6.312E-29	0.000E+00	0.000E+00	6.462E-07	6.308E-07	0.000E+00
Ce-144+D	Ce-144+D	1.000E+00	9.103E-02	3.731E-02	6.266E-03	1.216E-05	2.160E-13	1.460E-40	0.000E+00	0.000E+00
Cm-243	Cm-243	2.400E-03	8.892E-04	8.662E-04	8.218E-04	6.833E-04	4.017E-04	5.729E-05	0.000E+00	0.000E+00
Cm-243	Am-243+D	2.400E-03	6.359E-08	1.873E-07	4.196E-07	1.089E-06	2.356E-06	5.900E-06	6.250E-06	5.852E-06
Cm-243	Pu-239	2.400E-03	1.687E-13	1.167E-12	5.966E-12	4.717E-11	2.799E-10	1.049E-09	2.005E-09	7.908E-09
Cm-243	U-235+D	2.400E-03	1.014E-22	1.507E-21	1.720E-20	4.200E-19	8.106E-18	1.273E-16	1.629E-16	2.366E-15
Cm-243	Pa-231	2.400E-03	3.366E-27	1.130E-25	2.906E-24	2.106E-22	3.646E-20	1.671E-18	1.237E-17	6.351E-16
Cm-243	Ac-227+D	2.400E-03	1.570E-29	8.345E-28	3.850E-26	7.152E-24	8.508E-20	4.150E-18	3.076E-17	1.902E-15
Cm-243	ΣDSR(j)		8.893E-04	8.664E-04	8.222E-04	6.844E-04	4.040E-04	6.319E-05	6.252E-06	5.860E-06
Cm-243	Cm-243	9.976E-01	3.696E-01	3.600E-01	3.416E-01	2.840E-01	1.670E-01	2.381E-02	0.000E+00	0.000E+00
Cm-243	Pu-239	9.976E-01	2.246E-06	6.654E-06	1.502E-05	3.997E-05	8.269E-05	8.247E-05	0.000E+00	1.341E-06
Cm-243	U-235+D	9.976E-01	1.798E-15	1.248E-14	6.462E-14	5.357E-13	3.639E-12	1.842E-11	1.047E-12	1.756E-12
Cm-243	Pa-231	9.976E-01	7.723E-20	1.237E-18	1.461E-17	3.592E-16	6.678E-15	8.794E-14	1.882E-13	1.020E-12
Cm-243	Ac-227+D	9.976E-01	4.002E-22	1.054E-20	2.317E-19	1.484E-17	7.115E-16	4.740E-14	5.313E-13	3.217E-12
Cm-243	ΣDSR(j)		3.696E-01	3.600E-01	3.416E-01	2.841E-01	1.670E-01	2.390E-02	1.767E-12	1.341E-06
Cm-244	Cm-244	1.350E-06	1.146E-07	1.098E-07	1.007E-07	7.421E-08	3.082E-08	1.229E-09	0.000E+00	0.000E+00
Cm-244	Cm-244	4.950E-08	4.204E-09	4.025E-09	3.691E-09	2.721E-09	1.130E-09	4.506E-11	0.000E+00	0.000E+00
Cm-244	Pu-240	4.950E-08	4.082E-13	1.202E-12	2.677E-12	6.807E-12	1.260E-11	1.017E-11	0.000E+00	1.678E-13
Cm-244	ΣDSR(j)		4.204E-09	4.027E-09	3.693E-09	2.728E-09	1.143E-09	5.523E-11	0.000E+00	1.678E-13
Cm-244	Cm-244	1.000E+00	8.492E-02	8.132E-02	7.456E-02	5.497E-02	2.283E-02	9.102E-04	0.000E+00	0.000E+00
Cm-244	Pu-240	1.000E+00	8.247E-06	2.428E-05	5.408E-05	1.375E-04	2.544E-04	2.054E-04	0.000E+00	3.391E-06
Cm-244	U-236	1.000E+00	1.781E-14	1.260E-13	6.492E-13	5.106E-12	2.953E-11	9.782E-11	8.736E-11	1.418E-10
Cm-244	Th-232	1.000E+00	7.642E-25	1.070E-23	1.174E-22	2.735E-21	4.857E-20	5.621E-19	5.169E-21	3.811E-20
Cm-244	Ra-228+D	1.000E+00	5.315E-25	1.641E-23	3.924E-22	2.444E-20	9.474E-19	2.113E-17	2.356E-18	1.803E-17
Cm-244	Th-228+D	1.000E+00	3.524E-26	2.037E-24	9.231E-23	1.244E-20	7.854E-19	2.291E-17	3.488E-21	2.686E-20
Cm-244	ΣDSR(j)		8.493E-02	8.134E-02	7.461E-02	5.511E-02	2.309E-02	1.116E-03	8.736E-11	3.391E-06
Co-58	Co-58	1.000E+00	6.886E-01	1.925E-02	1.503E-05	2.001E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	Co-60	1.000E+00	6.298E+00	5.511E+00	4.221E+00	1.659E+00	1.143E-01	8.795E-06	0.000E+00	0.000E+00
Cs-134	Cs-134	1.000E+00	3.892E+00	2.775E+00	1.412E+00	1.323E-01	1.522E-04	7.052E-15	0.000E+00	0.000E+00
Cs-137+D	Cs-137+D	1.000E+00	1.819E+00	1.774E+00	1.686E+00	1.412E+00	8.453E-01	1.263E-01	0.000E+00	0.000E+00



Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.RAD

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
Eu-152	Eu-152	7.208E-01	2.035E+00	1.928E+00	1.733E+00	1.190E+00	4.046E-01	8.333E-03	0.000E+00	0.000E+00
Eu-152	Eu-152	2.792E-01	7.881E-01	7.470E-01	6.711E-01	4.610E-01	1.567E-01	3.228E-03	0.000E+00	0.000E+00
Eu-152	Gd-152	2.792E-01	2.050E-17	5.791E-17	1.256E-16	3.041E-16	5.100E-16	3.630E-16	0.000E+00	1.515E-18
Eu-152	ΣDSR(j)		7.881E-01	7.470E-01	6.711E-01	4.610E-01	1.567E-01	3.228E-03	0.000E+00	1.515E-18
Eu-154	Eu-154	1.000E+00	3.041E+00	2.807E+00	2.390E+00	1.361E+00	2.708E-01	8.546E-04	0.000E+00	0.000E+00
Eu-155	Eu-155	1.000E+00	8.114E-02	7.053E-02	5.330E-02	1.999E-02	1.211E-03	6.256E-08	0.000E+00	0.000E+00
Fe-55	Fe-55	1.000E+00	6.830E-04	5.255E-04	3.111E-04	4.961E-05	2.594E-07	2.316E-15	0.000E+00	0.000E+00
H-3	H-3	1.000E+00	2.093E-03	4.394E-04	3.836E-04	2.617E-04	1.848E-25	0.000E+00	0.000E+00	0.000E+00
Ni-59	Ni-59	1.000E+00	2.215E-03	2.201E-03	2.172E-03	2.071E-03	1.794E-03	9.372E-04	4.721E-06	5.105E-06
Ni-63	Ni-63	1.000E+00	6.068E-03	5.991E-03	5.839E-03	5.332E-03	4.080E-03	1.380E-03	0.000E+00	3.705E-09
Np-237+D	Np-237+D	1.000E+00	3.422E+00	3.308E+00	3.091E+00	2.812E+00	4.125E+00	5.233E+00	5.292E+00	0.000E+00
Np-237+D	U-233	1.000E+00	1.123E-07	2.814E-07	5.884E-07	1.476E-06	4.080E-06	1.523E-05	5.021E-05	4.767E-05
Np-237+D	Th-229+D	1.000E+00	5.997E-11	4.072E-10	2.085E-09	1.696E-08	1.104E-07	4.923E-07	6.629E-10	4.728E-08
Np-237+D	ΣDSR(j)		3.422E+00	3.308E+00	3.091E+00	2.812E+00	4.125E+00	5.233E+00	5.293E+00	4.772E-05
Pu-238	Pu-238	1.840E-09	2.626E-10	2.591E-10	2.523E-10	2.297E-10	1.742E-10	5.710E-11	0.000E+00	1.102E-15
Pu-238	Pu-238	1.000E+00	1.427E-01	1.408E-01	1.371E-01	1.248E-01	9.465E-02	3.103E-02	0.000E+00	5.991E-07
Pu-238	U-234	1.000E+00	5.318E-08	1.591E-07	3.637E-07	1.005E-06	2.278E-06	3.479E-06	2.806E-06	2.851E-06
Pu-238	Th-230	1.000E+00	1.016E-13	6.715E-13	3.404E-12	2.812E-11	1.934E-10	9.144E-10	6.771E-12	3.478E-11
Pu-238	Ra-226+D	1.000E+00	2.529E-15	3.825E-14	4.437E-13	1.126E-11	2.390E-10	4.684E-09	8.449E-10	1.382E-08
Pu-238	Pb-210+D	1.000E+00	4.752E-18	1.294E-16	2.923E-15	1.945E-13	9.920E-12	3.707E-10	1.817E-09	3.550E-08
Pu-238	Po-210	1.000E+00	2.909E-19	1.417E-17	5.102E-16	4.895E-14	2.881E-12	1.556E-10	6.426E-09	1.253E-07
Pu-238	ΣDSR(j)		1.427E-01	1.408E-01	1.371E-01	1.248E-01	9.465E-02	3.103E-02	2.815E-06	3.625E-06
Pu-239	Pu-239	1.000E+00	1.585E-01	1.576E-01	1.559E-01	1.500E-01	1.331E-01	7.572E-02	0.000E+00	1.744E-03
Pu-239	U-235+D	1.000E+00	1.890E-10	5.654E-10	1.309E-09	3.821E-09	1.022E-08	2.356E-08	1.468E-09	2.336E-09
Pu-239	Pa-231	1.000E+00	1.121E-14	8.285E-14	4.425E-13	3.775E-12	2.659E-11	1.515E-10	2.837E-10	1.411E-09
Pu-239	Ac-227+D	1.000E+00	6.652E-17	8.574E-16	8.893E-15	1.990E-13	3.526E-12	1.052E-10	8.100E-10	4.455E-09
Pu-239	ΣDSR(j)		1.585E-01	1.576E-01	1.559E-01	1.500E-01	1.331E-01	7.572E-02	2.562E-09	1.744E-03
Pu-240	Pu-240	4.950E-08	7.840E-09	7.797E-09	7.712E-09	7.414E-09	6.570E-09	3.717E-09	0.000E+00	7.990E-11
Pu-240	Pu-240	1.000E+00	1.584E-01	1.575E-01	1.558E-01	1.498E-01	1.327E-01	7.509E-02	0.000E+00	1.614E-03
Pu-240	U-236	1.000E+00	5.279E-10	1.585E-09	3.651E-09	1.036E-08	2.541E-08	4.882E-08	4.416E-08	6.915E-08
Pu-240	Th-232	1.000E+00	2.845E-20	1.883E-19	9.585E-19	8.052E-18	5.813E-17	3.226E-16	2.775E-18	1.905E-17
Pu-240	Ra-228+D	1.000E+00	2.536E-20	3.782E-19	4.185E-18	8.963E-17	1.293E-15	1.256E-14	1.269E-15	9.020E-15
Pu-240	Th-228+D	1.000E+00	1.977E-21	5.590E-20	1.176E-18	5.220E-17	1.144E-15	1.379E-14	1.879E-18	1.344E-17
Pu-240	ΣDSR(j)		1.584E-01	1.575E-01	1.558E-01	1.498E-01	1.327E-01	7.509E-02	4.416E-08	1.614E-03

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.RAD

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
Pu-241	Pu-241	1.000E+00	2.989E-03	2.833E-03	2.545E-03	1.748E-03	5.929E-04	1.163E-05	0.000E+00	4.215E-26
Pu-241	Am-241	1.000E+00	1.411E-04	4.115E-04	9.060E-04	2.227E-03	3.815E-03	2.786E-03	0.000E+00	1.340E-22
Pu-241	Np-237+D	1.000E+00	2.699E-10	1.932E-09	9.825E-09	7.199E-08	4.440E-07	2.509E-06	3.748E-06	1.439E-07
Pu-241	U-233	1.000E+00	5.940E-18	7.100E-17	6.864E-16	1.388E-14	2.229E-13	3.750E-12	2.581E-11	3.660E-11
Pu-241	Th-229+D	1.000E+00	1.604E-21	4.700E-20	1.126E-18	7.697E-17	3.807E-15	1.360E-13	2.787E-16	3.335E-14
Pu-241	ΣDSR(j)		3.130E-03	3.245E-03	3.451E-03	3.976E-03	4.409E-03	2.800E-03	3.748E-06	1.440E-07
Pu-241+D	Pu-241+D	2.450E-05	5.981E-06	5.695E-06	5.163E-06	3.662E-06	1.367E-06	4.015E-08	0.000E+00	1.081E-30
Pu-241+D	Np-237+D	2.450E-05	1.274E-11	3.798E-11	8.230E-11	1.865E-10	4.221E-10	7.411E-10	7.643E-10	3.340E-25
Pu-241+D	U-233	2.450E-05	3.323E-19	1.865E-18	8.298E-18	5.561E-17	3.080E-16	1.774E-15	6.792E-15	6.916E-15
Pu-241+D	Th-229+D	2.450E-05	1.201E-22	1.715E-21	1.897E-20	4.294E-19	6.839E-18	6.117E-17	8.515E-20	6.693E-18
Pu-241+D	ΣDSR(j)		5.981E-06	5.695E-06	5.163E-06	3.662E-06	1.368E-06	4.090E-08	7.643E-10	6.923E-15
Sb-125	Sb-125	7.720E-01	7.199E-01	5.586E-01	3.364E-01	5.695E-02	3.544E-04	6.066E-12	1.362E-37	0.000E+00
Sb-125	Sb-125	2.280E-01	2.126E-01	1.650E-01	9.934E-02	1.682E-02	1.047E-04	1.792E-12	4.024E-38	0.000E+00
Sb-125	Te-125m	2.280E-01	6.527E-03	7.433E-03	4.514E-03	7.691E-04	4.977E-06	1.024E-13	3.347E-36	0.000E+00
Sb-125	ΣDSR(j)		2.191E-01	1.724E-01	1.039E-01	1.759E-02	1.096E-04	1.894E-12	3.387E-36	0.000E+00
Sr-90+D	Sr-90+D	1.000E+00	2.251E+00	2.184E+00	2.054E+00	1.658E+00	8.909E-01	8.759E-02	7.787E-06	4.784E-13
Tc-99	Tc-99	1.000E+00	1.844E-01	9.423E-02	3.689E-02	2.317E-02	2.332E-02	1.140E-23	0.000E+00	0.000E+00

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

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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
Am-241	1.402E+02	1.411E+02	1.429E+02	1.495E+02	1.710E+02	3.056E+02	1.792E+05	6.341E+06
C-14	5.996E+01	2.386E+10	*4.455E+12	*4.455E+12	*4.455E+12	3.869E+07	3.963E+07	*4.455E+12
Ce-144	2.746E+02	6.701E+02	3.990E+03	2.056E+06	1.158E+14	*3.191E+15	*3.191E+15	*3.191E+15
Cm-243	6.747E+01	6.927E+01	7.301E+01	8.780E+01	1.493E+02	1.043E+03	3.999E+06	3.472E+06
Cm-244	2.944E+02	3.073E+02	3.351E+02	4.536E+02	1.083E+03	2.241E+04	2.862E+11	7.373E+06
Co-58	3.631E+01	1.299E+03	1.663E+06	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16
Co-60	3.970E+00	4.536E+00	5.922E+00	1.507E+01	2.187E+02	2.843E+06	*1.132E+15	*1.132E+15
Cs-134	6.424E+00	9.008E+00	1.771E+01	1.889E+02	1.643E+05	*1.295E+15	*1.295E+15	*1.295E+15
Cs-137	1.374E+01	1.409E+01	1.482E+01	1.771E+01	2.957E+01	1.979E+02	*8.704E+13	*8.704E+13
Eu-152	8.857E+00	9.344E+00	1.040E+01	1.514E+01	4.453E+01	2.162E+03	*1.765E+14	*1.765E+14
Eu-154	8.220E+00	8.908E+00	1.046E+01	1.837E+01	9.233E+01	2.925E+04	*2.639E+14	*2.639E+14
Eu-155	3.081E+02	3.544E+02	4.690E+02	1.250E+03	2.064E+04	3.996E+08	*4.652E+14	*4.652E+14
Fe-55	3.660E+04	4.757E+04	8.036E+04	5.039E+05	9.637E+07	*2.410E+15	*2.410E+15	*2.410E+15
H-3	1.195E+04	5.690E+04	6.517E+04	9.551E+04	*9.597E+15	*9.597E+15	*9.597E+15	*9.597E+15
Ni-59	1.128E+04	1.136E+04	1.151E+04	1.207E+04	1.393E+04	2.667E+04	5.295E+06	4.897E+06
Ni-63	4.120E+03	4.173E+03	4.282E+03	4.689E+03	6.128E+03	1.811E+04	*5.917E+13	6.747E+09
Np-237	7.306E+00	7.557E+00	8.088E+00	8.891E+00	6.061E+00	4.778E+00	4.724E+00	5.239E+05
Pu-238	1.752E+02	1.775E+02	1.823E+02	2.003E+02	2.641E+02	8.056E+02	8.882E+06	6.897E+06
Pu-239	1.578E+02	1.586E+02	1.604E+02	1.667E+02	1.878E+02	3.302E+02	9.758E+09	1.434E+04
Pu-240	1.578E+02	1.587E+02	1.605E+02	1.669E+02	1.884E+02	3.329E+02	5.661E+08	1.549E+04
Pu-241	7.972E+03	7.691E+03	7.233E+03	6.283E+03	5.669E+03	8.927E+03	6.669E+06	1.736E+08
Sb-125	2.662E+01	3.420E+01	5.679E+01	3.354E+02	5.387E+04	3.141E+12	*1.033E+15	*1.033E+15
Sr-90	1.111E+01	1.145E+01	1.217E+01	1.508E+01	2.806E+01	2.854E+02	3.211E+06	5.226E+13
Tc-99	1.356E+02	2.653E+02	6.777E+02	1.079E+03	1.072E+03	*1.697E+10	*1.697E+10	*1.697E+10

\*At specific activity limit

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.RAD

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

Nuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
Am-241	1.000E+00	0.000E+00	1.783E-01	1.402E+02	1.783E-01	1.402E+02
C-14	1.000E+00	0.000E+00	4.169E-01	5.996E+01	4.169E-01	5.996E+01
Ce-144	1.000E+00	0.000E+00	9.103E-02	2.746E+02	9.103E-02	2.746E+02
Cm-243	1.000E+00	0.000E+00	3.705E-01	6.747E+01	3.705E-01	6.747E+01
Cm-244	1.000E+00	0.000E+00	8.493E-02	2.944E+02	8.493E-02	2.944E+02
Co-58	1.000E+00	0.000E+00	6.886E-01	3.631E+01	6.886E-01	3.631E+01
Co-60	1.000E+00	0.000E+00	6.298E+00	3.970E+00	6.298E+00	3.970E+00
Cs-134	1.000E+00	0.000E+00	3.892E+00	6.424E+00	3.892E+00	6.424E+00
Cs-137	1.000E+00	0.000E+00	1.819E+00	1.374E+01	1.819E+00	1.374E+01
Eu-152	1.000E+00	0.000E+00	2.823E+00	8.857E+00	2.823E+00	8.857E+00
Eu-154	1.000E+00	0.000E+00	3.041E+00	8.220E+00	3.041E+00	8.220E+00
Eu-155	1.000E+00	0.000E+00	8.114E-02	3.081E+02	8.114E-02	3.081E+02
Fe-55	1.000E+00	0.000E+00	6.830E-04	3.660E+04	6.830E-04	3.660E+04
H-3	1.000E+00	0.000E+00	2.093E-03	1.195E+04	2.093E-03	1.195E+04
Ni-59	1.000E+00	0.000E+00	2.215E-03	1.128E+04	2.215E-03	1.128E+04
Ni-63	1.000E+00	0.000E+00	6.068E-03	4.120E+03	6.068E-03	4.120E+03
Np-237	1.000E+00	177.7 ± 0.4	5.293E+00	4.723E+00	3.422E+00	7.306E+00
Pu-238	1.000E+00	0.000E+00	1.427E-01	1.752E+02	1.427E-01	1.752E+02
Pu-239	1.000E+00	0.000E+00	1.585E-01	1.578E+02	1.585E-01	1.578E+02
Pu-240	1.000E+00	0.000E+00	1.584E-01	1.578E+02	1.584E-01	1.578E+02
Pu-241	1.000E+00	28.55 ± 0.06	4.412E-03	5.666E+03	3.136E-03	7.972E+03
Sb-125	1.000E+00	0.000E+00	9.390E-01	2.662E+01	9.390E-01	2.662E+01
Sr-90	1.000E+00	0.000E+00	2.251E+00	1.111E+01	2.251E+00	1.111E+01
Tc-99	1.000E+00	0.000E+00	1.844E-01	1.356E+02	1.844E-01	1.356E+02

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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
Am-241	Am-241	1.000E+00	1.783E-01	1.772E-01	1.750E-01	1.672E-01	1.461E-01	8.172E-02	0.000E+00	0.000E+00
Am-241	Pu-241	1.000E+00	1.411E-04	4.115E-04	9.060E-04	2.227E-03	3.815E-03	2.786E-03	0.000E+00	1.340E-22
Am-241	ΣDOSE(j)		1.784E-01	1.776E-01	1.759E-01	1.695E-01	1.500E-01	8.450E-02	0.000E+00	1.340E-22
Np-237	Am-241	1.000E+00	5.277E-07	1.606E-06	3.644E-06	9.706E-06	3.011E-05	1.030E-04	1.395E-04	3.941E-06
Np-237	Np-237	1.000E+00	3.422E+00	3.308E+00	3.091E+00	2.812E+00	4.125E+00	5.233E+00	5.292E+00	0.000E+00
Np-237	Pu-241	1.000E+00	2.699E-10	1.932E-09	9.825E-09	7.199E-08	4.440E-07	2.509E-06	3.748E-06	1.439E-07
Np-237	Pu-241	2.450E-05	1.274E-11	3.798E-11	8.230E-11	1.865E-10	4.221E-10	7.411E-10	7.643E-10	3.340E-25
Np-237	ΣDOSE(j)		3.422E+00	3.308E+00	3.091E+00	2.812E+00	4.125E+00	5.233E+00	5.293E+00	4.085E-06
U-233	Am-241	1.000E+00	1.373E-14	7.819E-14	3.586E-13	2.673E-12	1.904E-11	1.809E-10	1.026E-09	1.329E-09
U-233	Np-237	1.000E+00	1.123E-07	2.814E-07	5.884E-07	1.476E-06	4.080E-06	1.523E-05	5.021E-05	4.767E-05
U-233	Pu-241	1.000E+00	5.940E-18	7.100E-17	6.864E-16	1.388E-14	2.229E-13	3.750E-12	2.581E-11	3.660E-11
U-233	Pu-241	2.450E-05	3.323E-19	1.865E-18	8.298E-18	5.561E-17	3.080E-16	1.774E-15	6.792E-15	6.916E-15
U-233	ΣDOSE(j)		1.123E-07	2.814E-07	5.884E-07	1.476E-06	4.080E-06	1.523E-05	5.021E-05	4.767E-05
Th-229	Am-241	1.000E+00	4.947E-18	7.137E-17	8.071E-16	1.976E-14	3.898E-13	6.449E-12	1.157E-11	1.233E-12
Th-229	Np-237	1.000E+00	5.997E-11	4.072E-10	2.085E-09	1.696E-08	1.104E-07	4.923E-07	6.629E-10	4.728E-08
Th-229	Pu-241	1.000E+00	1.604E-21	4.700E-20	1.126E-18	7.697E-17	3.807E-15	1.360E-13	2.787E-16	3.335E-14
Th-229	Pu-241	2.450E-05	1.201E-22	1.715E-21	1.897E-20	4.294E-19	6.839E-18	6.117E-17	8.515E-20	6.693E-18
Th-229	ΣDOSE(j)		5.997E-11	4.072E-10	2.085E-09	1.696E-08	1.104E-07	4.923E-07	6.629E-10	4.728E-08
C-14	C-14	1.000E+00	4.169E-01	1.048E-09	6.312E-29	0.000E+00	0.000E+00	6.462E-07	6.308E-07	0.000E+00
Ce-144	Ce-144	1.000E+00	9.103E-02	3.731E-02	6.266E-03	1.216E-05	2.160E-13	0.000E+00	0.000E+00	0.000E+00
Cm-243	Cm-243	2.400E-03	8.892E-04	8.662E-04	8.218E-04	6.833E-04	4.017E-04	5.729E-05	0.000E+00	0.000E+00
Cm-243	Cm-243	9.976E-01	3.696E-01	3.600E-01	3.416E-01	2.840E-01	1.670E-01	2.381E-02	0.000E+00	0.000E+00
Cm-243	ΣDOSE(j)		3.705E-01	3.609E-01	3.424E-01	2.847E-01	1.674E-01	2.387E-02	0.000E+00	0.000E+00
Am-243	Cm-243	2.400E-03	6.359E-08	1.873E-07	4.196E-07	1.089E-06	2.356E-06	5.900E-06	6.250E-06	5.852E-06
Pu-239	Cm-243	2.400E-03	1.687E-13	1.167E-12	5.966E-12	4.717E-11	2.799E-10	1.049E-09	2.005E-09	7.908E-09
Pu-239	Cm-243	9.976E-01	2.246E-06	6.654E-06	1.502E-05	3.997E-05	8.269E-05	8.247E-05	0.000E+00	1.341E-06
Pu-239	Pu-239	1.000E+00	1.585E-01	1.576E-01	1.559E-01	1.500E-01	1.331E-01	7.572E-02	0.000E+00	1.744E-03
Pu-239	ΣDOSE(j)		1.585E-01	1.576E-01	1.559E-01	1.500E-01	1.332E-01	7.580E-02	2.005E-09	1.745E-03
U-235	Cm-243	2.400E-03	1.014E-22	1.507E-21	1.720E-20	4.200E-19	8.106E-18	1.273E-16	1.629E-16	2.366E-15
U-235	Cm-243	9.976E-01	1.798E-15	1.248E-14	6.462E-14	5.357E-13	3.639E-12	1.842E-11	1.047E-12	1.756E-12
U-235	Pu-239	1.000E+00	1.890E-10	5.654E-10	1.309E-09	3.821E-09	1.022E-08	2.356E-08	1.468E-09	2.336E-09
U-235	ΣDOSE(j)		1.890E-10	5.654E-10	1.309E-09	3.821E-09	1.022E-08	2.358E-08	1.469E-09	2.338E-09
Pa-231	Cm-243	2.400E-03	3.366E-27	1.130E-25	2.906E-24	2.106E-22	3.646E-20	1.671E-18	1.237E-17	6.351E-16
Pa-231	Cm-243	9.976E-01	7.723E-20	1.237E-18	1.461E-17	3.592E-16	6.678E-15	8.794E-14	1.882E-13	1.020E-12
Pa-231	Pu-239	1.000E+00	1.121E-14	8.285E-14	4.425E-13	3.775E-12	2.659E-11	1.515E-10	2.837E-10	1.411E-09
Pa-231	ΣDOSE(j)		1.121E-14	8.285E-14	4.425E-13	3.776E-12	2.660E-11	1.516E-10	2.839E-10	1.412E-09
Ac-227	Cm-243	2.400E-03	1.404E-29	8.345E-28	3.850E-26	7.152E-24	8.508E-20	4.150E-18	3.076E-17	1.902E-15
Ac-227	Cm-243	9.976E-01	4.002E-22	1.054E-20	2.317E-19	1.484E-17	7.115E-16	4.740E-14	5.313E-13	3.217E-12

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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
Ac-227	Pu-239	1.000E+00	6.652E-17	8.574E-16	8.893E-15	1.990E-13	3.526E-12	1.052E-10	8.100E-10	4.455E-09
Ac-227	ΣDOSE(j)		6.652E-17	8.574E-16	8.893E-15	1.990E-13	3.527E-12	1.052E-10	8.105E-10	4.459E-09
Cm-244	Cm-244	1.350E-06	1.146E-07	1.098E-07	1.007E-07	7.421E-08	3.082E-08	1.229E-09	0.000E+00	0.000E+00
Cm-244	Cm-244	4.950E-08	4.204E-09	4.025E-09	3.691E-09	2.721E-09	1.130E-09	4.506E-11	0.000E+00	0.000E+00
Cm-244	ΣDOSE(j)		1.188E-07	1.138E-07	1.043E-07	7.694E-08	3.195E-08	1.274E-09	0.000E+00	0.000E+00
Pu-240	Cm-244	4.950E-08	4.082E-13	1.202E-12	2.677E-12	6.807E-12	1.260E-11	1.017E-11	0.000E+00	1.678E-13
Pu-240	Pu-240	4.950E-08	7.840E-09	7.797E-09	7.712E-09	7.414E-09	6.570E-09	3.717E-09	0.000E+00	7.990E-11
Pu-240	ΣDOSE(j)		7.841E-09	7.799E-09	7.715E-09	7.421E-09	6.583E-09	3.727E-09	0.000E+00	8.007E-11
Cm-244	Cm-244	1.000E+00	8.492E-02	8.132E-02	7.456E-02	5.497E-02	2.283E-02	9.102E-04	0.000E+00	0.000E+00
Pu-240	Cm-244	1.000E+00	8.247E-06	2.428E-05	5.408E-05	1.375E-04	2.544E-04	2.054E-04	0.000E+00	3.391E-06
U-236	Cm-244	1.000E+00	1.781E-14	1.260E-13	6.492E-13	5.106E-12	2.953E-11	9.782E-11	8.736E-11	1.418E-10
U-236	Pu-240	1.000E+00	5.279E-10	1.585E-09	3.651E-09	1.036E-08	2.541E-08	4.882E-08	4.416E-08	6.915E-08
U-236	ΣDOSE(j)		5.280E-10	1.585E-09	3.652E-09	1.037E-08	2.544E-08	4.891E-08	4.425E-08	6.929E-08
Th-232	Cm-244	1.000E+00	7.642E-25	1.070E-23	1.174E-22	2.735E-21	4.857E-20	5.621E-19	5.169E-21	3.811E-20
Th-232	Pu-240	1.000E+00	2.845E-20	1.883E-19	9.585E-19	8.052E-18	5.813E-17	3.226E-16	2.775E-18	1.905E-17
Th-232	ΣDOSE(j)		2.845E-20	1.883E-19	9.586E-19	8.055E-18	5.818E-17	3.231E-16	2.780E-18	1.909E-17
Ra-228	Cm-244	1.000E+00	5.315E-25	1.641E-23	3.924E-22	2.444E-20	9.474E-19	2.113E-17	2.356E-18	1.803E-17
Ra-228	Pu-240	1.000E+00	2.536E-20	3.782E-19	4.185E-18	8.963E-17	1.293E-15	1.256E-14	1.269E-15	9.020E-15
Ra-228	ΣDOSE(j)		2.537E-20	3.782E-19	4.186E-18	8.965E-17	1.294E-15	1.258E-14	1.271E-15	9.038E-15
Th-228	Cm-244	1.000E+00	3.524E-26	2.037E-24	9.231E-23	1.244E-20	7.854E-19	2.291E-17	3.488E-21	2.686E-20
Th-228	Pu-240	1.000E+00	1.977E-21	5.590E-20	1.176E-18	5.220E-17	1.144E-15	1.379E-14	1.879E-18	1.344E-17
Th-228	ΣDOSE(j)		1.977E-21	5.590E-20	1.176E-18	5.221E-17	1.144E-15	1.381E-14	1.883E-18	1.347E-17
Co-58	Co-58	1.000E+00	6.886E-01	1.925E-02	1.503E-05	2.001E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	Co-60	1.000E+00	6.298E+00	5.511E+00	4.221E+00	1.659E+00	1.143E-01	8.795E-06	0.000E+00	0.000E+00
Cs-134	Cs-134	1.000E+00	3.892E+00	2.775E+00	1.412E+00	1.323E-01	1.522E-04	7.052E-15	0.000E+00	0.000E+00
Cs-137	Cs-137	1.000E+00	1.819E+00	1.774E+00	1.686E+00	1.412E+00	8.453E-01	1.263E-01	0.000E+00	0.000E+00
Eu-152	Eu-152	7.208E-01	2.035E+00	1.928E+00	1.733E+00	1.190E+00	4.046E-01	8.333E-03	0.000E+00	0.000E+00
Eu-152	Eu-152	2.792E-01	7.881E-01	7.470E-01	6.711E-01	4.610E-01	1.567E-01	3.228E-03	0.000E+00	0.000E+00
Eu-152	ΣDOSE(j)		2.823E+00	2.675E+00	2.404E+00	1.651E+00	5.614E-01	1.156E-02	0.000E+00	0.000E+00
Gd-152	Eu-152	2.792E-01	2.050E-17	5.791E-17	1.256E-16	3.041E-16	5.100E-16	3.630E-16	0.000E+00	1.515E-18
Eu-154	Eu-154	1.000E+00	3.041E+00	2.807E+00	2.390E+00	1.361E+00	2.708E-01	8.546E-04	0.000E+00	0.000E+00
Eu-155	Eu-155	1.000E+00	8.114E-02	7.053E-02	5.330E-02	1.999E-02	1.211E-03	6.256E-08	0.000E+00	0.000E+00
Fe-55	Fe-55	1.000E+00	6.830E-04	5.255E-04	3.111E-04	4.961E-05	2.594E-07	2.316E-15	0.000E+00	0.000E+00

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.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
H-3	H-3	1.000E+00	2.093E-03	4.394E-04	3.836E-04	2.617E-04	1.848E-25	0.000E+00	0.000E+00	0.000E+00
Ni-59	Ni-59	1.000E+00	2.215E-03	2.201E-03	2.172E-03	2.071E-03	1.794E-03	9.372E-04	4.721E-06	5.105E-06
Ni-63	Ni-63	1.000E+00	6.068E-03	5.991E-03	5.839E-03	5.332E-03	4.080E-03	1.380E-03	0.000E+00	3.705E-09
Pu-238	Pu-238	1.840E-09	2.626E-10	2.591E-10	2.523E-10	2.297E-10	1.742E-10	5.710E-11	0.000E+00	1.102E-15
Pu-238	Pu-238	1.000E+00	1.427E-01	1.408E-01	1.371E-01	1.248E-01	9.465E-02	3.103E-02	0.000E+00	5.991E-07
Pu-238	ΣDOSE(j)		1.427E-01	1.408E-01	1.371E-01	1.248E-01	9.465E-02	3.103E-02	0.000E+00	5.991E-07
U-234	Pu-238	1.000E+00	5.318E-08	1.591E-07	3.637E-07	1.005E-06	2.278E-06	3.479E-06	2.806E-06	2.851E-06
Th-230	Pu-238	1.000E+00	1.016E-13	6.715E-13	3.404E-12	2.812E-11	1.934E-10	9.144E-10	6.771E-12	3.478E-11
Ra-226	Pu-238	1.000E+00	2.529E-15	3.825E-14	4.437E-13	1.126E-11	2.390E-10	4.684E-09	8.449E-10	1.382E-08
Pb-210	Pu-238	1.000E+00	4.752E-18	1.294E-16	2.923E-15	1.945E-13	9.920E-12	3.707E-10	1.817E-09	3.550E-08
Po-210	Pu-238	1.000E+00	2.909E-19	1.417E-17	5.102E-16	4.895E-14	2.881E-12	1.556E-10	6.426E-09	1.253E-07
Pu-240	Pu-240	1.000E+00	1.584E-01	1.575E-01	1.558E-01	1.498E-01	1.327E-01	7.509E-02	0.000E+00	1.614E-03
Pu-241	Pu-241	1.000E+00	2.989E-03	2.833E-03	2.545E-03	1.748E-03	5.929E-04	1.163E-05	0.000E+00	4.215E-26
Pu-241	Pu-241	2.450E-05	5.981E-06	5.695E-06	5.163E-06	3.662E-06	1.367E-06	4.015E-08	0.000E+00	1.001E-30
Pu-241	ΣDOSE(j)		2.995E-03	2.839E-03	2.551E-03	1.752E-03	5.943E-04	1.167E-05	0.000E+00	4.215E-26
Sb-125	Sb-125	7.720E-01	7.199E-01	5.586E-01	3.364E-01	5.695E-02	3.544E-04	6.066E-12	0.000E+00	0.000E+00
Sb-125	Sb-125	2.280E-01	2.126E-01	1.650E-01	9.934E-02	1.682E-02	1.047E-04	1.792E-12	0.000E+00	0.000E+00
Sb-125	ΣDOSE(j)		9.325E-01	7.236E-01	4.357E-01	7.377E-02	4.591E-04	7.858E-12	0.000E+00	0.000E+00
Te-125m	Sb-125	2.280E-01	6.527E-03	7.433E-03	4.514E-03	7.691E-04	4.977E-06	1.024E-13	0.000E+00	0.000E+00
Sr-90	Sr-90	1.000E+00	2.251E+00	2.184E+00	2.054E+00	1.658E+00	8.909E-01	8.759E-02	7.787E-06	4.784E-13
Tc-99	Tc-99	1.000E+00	1.844E-01	9.423E-02	3.689E-02	2.317E-02	2.332E-02	1.140E-23	0.000E+00	0.000E+00

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

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.RAD

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
Am-241	Am-241	1.000E+00	1.000E+00	9.982E-01	9.946E-01	9.819E-01	9.468E-01	8.335E-01	5.790E-01	1.618E-01
Am-241	Pu-241	1.000E+00	0.000E+00	1.564E-03	4.466E-03	1.259E-02	2.453E-02	2.841E-02	1.993E-02	5.568E-03
Am-241	ΣS(j):		1.000E+00	9.997E-01	9.990E-01	9.945E-01	9.714E-01	8.619E-01	5.989E-01	1.673E-01
Np-237	Am-241	1.000E+00	0.000E+00	3.189E-07	9.274E-07	2.779E-06	6.252E-06	9.148E-06	6.780E-06	1.895E-06
Np-237	Np-237	1.000E+00	1.000E+00	9.710E-01	9.154E-01	7.447E-01	4.130E-01	5.247E-02	1.445E-04	1.582E-13
Np-237	Pu-241	1.000E+00	0.000E+00	2.529E-10	2.159E-09	2.000E-08	1.098E-07	2.886E-07	2.332E-07	6.521E-08
Np-237	Pu-241	2.450E-05	0.000E+00	7.633E-12	2.118E-11	5.384E-11	7.500E-11	1.867E-11	6.030E-14	6.625E-23
Np-237	ΣS(j):		1.000E+00	9.710E-01	9.154E-01	7.447E-01	4.130E-01	5.248E-02	1.515E-04	1.960E-06
U-233	Am-241	1.000E+00	0.000E+00	6.996E-13	6.145E-12	6.278E-11	4.488E-10	2.458E-09	5.018E-09	2.225E-09
U-233	Np-237	1.000E+00	0.000E+00	4.298E-06	1.245E-05	3.682E-05	7.942E-05	9.613E-05	3.565E-05	7.979E-07
U-233	Pu-241	1.000E+00	0.000E+00	3.706E-16	9.593E-15	3.071E-13	5.570E-12	6.233E-11	1.635E-10	7.638E-11
U-233	Pu-241	2.450E-05	0.000E+00	1.688E-17	1.437E-16	1.319E-15	7.030E-15	1.584E-14	6.575E-15	1.473E-16
U-233	ΣS(j):		0.000E+00	4.298E-06	1.245E-05	3.682E-05	7.942E-05	9.613E-05	3.566E-05	8.002E-07
Th-229	Am-241	1.000E+00	0.000E+00	2.209E-17	5.856E-16	2.036E-14	4.622E-13	1.003E-11	8.750E-11	3.246E-10
Th-229	Np-237	1.000E+00	0.000E+00	2.041E-10	1.795E-09	1.841E-08	1.333E-07	7.700E-07	1.928E-06	2.375E-06
Th-229	Pu-241	1.000E+00	0.000E+00	8.787E-21	6.881E-19	7.560E-17	4.455E-15	2.110E-13	2.585E-12	1.062E-11
Th-229	Pu-241	2.450E-05	0.000E+00	5.349E-22	1.386E-20	4.450E-19	8.153E-18	9.548E-17	3.038E-16	3.897E-16
Th-229	ΣS(j):		0.000E+00	2.041E-10	1.795E-09	1.841E-08	1.333E-07	7.700E-07	1.928E-06	2.375E-06
C-14	C-14	1.000E+00	1.000E+00	2.467E-10	1.501E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ce-144	Ce-144	1.000E+00	1.000E+00	4.104E-01	6.913E-02	1.356E-04	2.492E-12	2.098E-39	0.000E+00	0.000E+00
Cm-243	Cm-243	2.400E-03	2.400E-03	2.342E-03	2.231E-03	1.882E-03	1.157E-03	2.105E-04	1.620E-06	6.479E-14
Cm-243	Cm-243	9.976E-01	9.976E-01	9.736E-01	9.274E-01	7.821E-01	4.807E-01	8.752E-02	6.735E-04	2.693E-11
Cm-243	ΣS(j):		1.000E+00	9.760E-01	9.296E-01	7.840E-01	4.819E-01	8.773E-02	6.751E-04	2.700E-11
Am-243	Cm-243	2.400E-03	0.000E+00	2.212E-07	6.389E-07	1.866E-06	3.846E-06	3.551E-06	3.423E-07	2.651E-11
Pu-239	Cm-243	2.400E-03	0.000E+00	3.205E-12	2.812E-11	2.861E-10	2.015E-09	1.025E-08	1.778E-08	1.488E-08
Pu-239	Cm-243	9.976E-01	0.000E+00	2.838E-05	8.309E-05	2.546E-04	6.085E-04	1.054E-03	1.088E-03	8.735E-04
Pu-239	Pu-239	1.000E+00	1.000E+00	9.997E-01	9.991E-01	9.969E-01	9.906E-01	9.690E-01	9.100E-01	7.302E-01
Pu-239	ΣS(j):		1.000E+00	9.997E-01	9.991E-01	9.971E-01	9.912E-01	9.701E-01	9.111E-01	7.311E-01
U-235	Cm-243	2.400E-03	0.000E+00	1.054E-21	2.785E-20	9.563E-19	2.089E-17	3.873E-16	2.072E-15	2.832E-15
U-235	Cm-243	9.976E-01	0.000E+00	1.401E-14	1.236E-13	1.282E-12	9.538E-12	5.864E-11	1.523E-10	1.670E-10
U-235	Pu-239	1.000E+00	0.000E+00	9.820E-10	2.929E-09	9.571E-09	2.714E-08	7.473E-08	1.375E-07	1.399E-07
U-235	ΣS(j):		0.000E+00	9.821E-10	2.929E-09	9.572E-09	2.714E-08	7.478E-08	1.377E-07	1.400E-07
Pa-231	Cm-243	2.400E-03	0.000E+00	5.582E-27	4.434E-25	5.113E-23	3.419E-21	2.232E-19	3.751E-18	1.106E-17
Pa-231	Cm-243	9.976E-01	0.000E+00	9.891E-20	2.624E-18	9.139E-17	2.079E-15	4.430E-14	3.291E-13	6.633E-13
Pa-231	Pu-239	1.000E+00	0.000E+00	1.038E-14	9.273E-14	1.004E-12	8.390E-12	7.230E-11	3.285E-10	5.590E-10
Pa-231	ΣS(j):		0.000E+00	1.038E-14	9.273E-14	1.004E-12	8.392E-12	7.234E-11	3.288E-10	5.597E-10
Ac-227	Cm-243	2.400E-03	0.000E+00	3.533E-29	8.321E-27	3.072E-24	5.519E-22	8.627E-20	2.279E-18	7.768E-18
Ac-227	Cm-243	9.976E-01	0.000E+00	7.815E-22	6.130E-20	6.772E-18	4.041E-16	1.933E-14	2.083E-13	4.669E-13



Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.RAD

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
Ac-227	Pu-239	1.000E+00	0.000E+00	1.090E-16	2.862E-15	9.631E-14	2.009E-12	3.496E-11	2.124E-10	3.939E-10
Ac-227	ΣS(j):		0.000E+00	1.090E-16	2.862E-15	9.631E-14	2.009E-12	3.498E-11	2.126E-10	3.943E-10
Cm-244	Cm-244	1.350E-06	1.350E-06	1.299E-06	1.204E-06	9.206E-07	4.280E-07	2.934E-08	1.386E-11	3.175E-23
Cm-244	Cm-244	4.950E-08	4.950E-08	4.764E-08	4.413E-08	3.375E-08	1.569E-08	1.076E-09	5.082E-13	1.164E-24
Cm-244	ΣS(j):		1.399E-06	1.347E-06	1.248E-06	9.543E-07	4.437E-07	3.042E-08	1.437E-11	3.292E-23
Pu-240	Cm-244	4.950E-08	0.000E+00	5.148E-12	1.487E-11	4.352E-11	9.297E-11	1.302E-10	1.231E-10	9.362E-11
Pu-240	Pu-240	4.950E-08	4.950E-08	4.948E-08	4.944E-08	4.931E-08	4.892E-08	4.760E-08	4.401E-08	3.346E-08
Pu-240	ΣS(j):		4.950E-08	4.949E-08	4.946E-08	4.935E-08	4.901E-08	4.773E-08	4.414E-08	3.355E-08
Cm-244	Cm-244	1.000E+00	1.000E+00	9.624E-01	8.915E-01	6.819E-01	3.171E-01	2.173E-02	1.027E-05	2.352E-17
Pu-240	Cm-244	1.000E+00	0.000E+00	1.040E-04	3.003E-04	8.791E-04	1.878E-03	2.630E-03	2.488E-03	1.891E-03
U-236	Cm-244	1.000E+00	0.000E+00	1.547E-12	1.352E-11	1.360E-10	9.367E-10	4.848E-09	1.090E-08	1.104E-08
U-236	Pu-240	1.000E+00	0.000E+00	2.952E-08	8.804E-08	2.876E-07	8.147E-07	2.237E-06	4.074E-06	3.950E-06
U-236	ΣS(j):		0.000E+00	2.952E-08	8.805E-08	2.877E-07	8.156E-07	2.242E-06	4.085E-06	3.961E-06
Th-232	Cm-244	1.000E+00	0.000E+00	2.553E-23	6.743E-22	2.317E-20	5.114E-19	1.053E-17	9.432E-17	5.022E-16
Th-232	Pu-240	1.000E+00	0.000E+00	7.288E-19	6.534E-18	7.162E-17	6.205E-16	6.059E-15	3.913E-14	1.865E-13
Th-232	ΣS(j):		0.000E+00	7.288E-19	6.535E-18	7.165E-17	6.210E-16	6.070E-15	3.922E-14	1.870E-13
Ra-228	Cm-244	1.000E+00	0.000E+00	7.522E-25	5.704E-23	5.652E-21	2.647E-19	8.509E-18	8.724E-17	4.823E-16
Ra-228	Pu-240	1.000E+00	0.000E+00	2.841E-20	7.203E-19	2.175E-17	3.664E-16	5.064E-15	3.636E-14	1.791E-13
Ra-228	ΣS(j):		0.000E+00	2.841E-20	7.203E-19	2.176E-17	3.666E-16	5.073E-15	3.645E-14	1.796E-13
Th-228	Cm-244	1.000E+00	0.000E+00	5.165E-26	1.061E-23	2.582E-21	1.994E-19	7.946E-18	8.582E-17	4.808E-16
Th-228	Pu-240	1.000E+00	0.000E+00	2.412E-21	1.625E-19	1.142E-17	2.950E-16	4.794E-15	3.583E-14	1.786E-13
Th-228	ΣS(j):		0.000E+00	2.412E-21	1.625E-19	1.143E-17	2.952E-16	4.802E-15	3.591E-14	1.791E-13
Co-58	Co-58	1.000E+00	1.000E+00	2.799E-02	2.193E-05	2.951E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	Co-60	1.000E+00	1.000E+00	8.767E-01	6.739E-01	2.683E-01	1.932E-02	1.935E-06	7.241E-18	0.000E+00
Cs-134	Cs-134	1.000E+00	1.000E+00	7.145E-01	3.647E-01	3.466E-02	4.162E-05	2.499E-15	1.541E-44	0.000E+00
Cs-137	Cs-137	1.000E+00	1.000E+00	9.771E-01	9.328E-01	7.931E-01	4.988E-01	9.844E-02	9.540E-04	8.548E-11
Eu-152	Eu-152	7.208E-01	7.208E-01	6.843E-01	6.166E-01	4.284E-01	1.513E-01	3.962E-03	1.197E-07	1.814E-23
Eu-152	Eu-152	2.792E-01	2.792E-01	2.650E-01	2.388E-01	1.659E-01	5.861E-02	1.535E-03	4.636E-08	7.027E-24
Eu-152	ΣS(j):		1.000E+00	9.493E-01	8.555E-01	5.943E-01	2.099E-01	5.496E-03	1.661E-07	2.517E-23
Gd-152	Eu-152	2.792E-01	0.000E+00	1.746E-15	4.975E-15	1.395E-14	2.704E-14	3.334E-14	3.139E-14	2.492E-14
Eu-154	Eu-154	1.000E+00	1.000E+00	9.242E-01	7.895E-01	4.547E-01	9.403E-02	3.781E-04	5.404E-11	5.967E-35
Eu-155	Eu-155	1.000E+00	1.000E+00	8.695E-01	6.575E-01	2.471E-01	1.509E-02	8.496E-07	6.133E-19	0.000E+00
Fe-55	Fe-55	1.000E+00	1.000E+00	7.733E-01	4.625E-01	7.651E-02	4.480E-04	6.878E-12	3.253E-34	0.000E+00

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\SOIL DCGL\FCS SOIL DCGL 0.15 M.RAD

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
H-3	H-3	1.000E+00	1.000E+00	5.435E-03	1.605E-07	2.249E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni-59	Ni-59	1.000E+00	1.000E+00	9.985E-01	9.954E-01	9.848E-01	9.552E-01	8.582E-01	6.322E-01	2.168E-01
Ni-63	Ni-63	1.000E+00	1.000E+00	9.923E-01	9.771E-01	9.256E-01	7.930E-01	4.615E-01	9.832E-02	4.386E-04
Pu-238	Pu-238	1.840E-09	1.840E-09	1.825E-09	1.795E-09	1.695E-09	1.439E-09	8.116E-10	1.579E-10	5.127E-13
Pu-238	Pu-238	1.000E+00	1.000E+00	9.918E-01	9.757E-01	9.214E-01	7.823E-01	4.411E-01	8.580E-02	2.786E-04
Pu-238	ΣS(j):		1.000E+00	9.918E-01	9.757E-01	9.214E-01	7.823E-01	4.411E-01	8.580E-02	2.786E-04
U-234	Pu-238	1.000E+00	0.000E+00	2.816E-06	8.333E-06	2.648E-05	6.936E-05	1.440E-04	1.135E-04	4.230E-06
Th-230	Pu-238	1.000E+00	0.000E+00	1.270E-11	1.133E-10	1.220E-09	1.003E-08	8.221E-08	3.362E-07	5.619E-07
Ra-226	Pu-238	1.000E+00	0.000E+00	1.834E-15	4.909E-14	1.762E-12	4.352E-11	1.187E-09	1.404E-08	5.225E-08
Pb-210	Pu-238	1.000E+00	0.000E+00	1.417E-17	1.124E-15	1.293E-13	8.591E-12	5.644E-10	1.070E-08	4.750E-08
Po-210	Pu-238	1.000E+00	0.000E+00	3.930E-18	6.164E-16	1.044E-13	7.929E-12	5.469E-10	1.051E-08	4.681E-08
Pu-240	Pu-240	1.000E+00	1.000E+00	9.996E-01	9.988E-01	9.961E-01	9.883E-01	9.616E-01	8.891E-01	6.759E-01
Pu-241	Pu-241	1.000E+00	1.000E+00	9.527E-01	8.648E-01	6.162E-01	2.339E-01	7.890E-03	4.913E-07	9.356E-22
Pu-241	Pu-241	2.450E-05	2.450E-05	2.334E-05	2.119E-05	1.510E-05	5.732E-06	1.933E-07	1.204E-11	2.292E-26
Pu-241	ΣS(j):		1.000E+00	9.527E-01	8.648E-01	6.162E-01	2.340E-01	7.891E-03	4.913E-07	9.356E-22
Sb-125	Sb-125	7.720E-01	7.720E-01	5.998E-01	3.621E-01	6.189E-02	3.978E-04	8.470E-12	1.019E-33	0.000E+00
Sb-125	Sb-125	2.280E-01	2.280E-01	1.771E-01	1.069E-01	1.828E-02	1.175E-04	2.501E-12	3.011E-34	0.000E+00
Sb-125	ΣS(j):		1.000E+00	7.770E-01	4.690E-01	8.017E-02	5.153E-04	1.097E-11	1.321E-33	0.000E+00
Te-125m	Sb-125	2.280E-01	0.000E+00	1.383E-01	8.379E-02	1.432E-02	9.206E-05	1.960E-12	2.359E-34	0.000E+00
Sr-90	Sr-90	1.000E+00	1.000E+00	9.749E-01	9.266E-01	7.755E-01	4.664E-01	7.869E-02	4.873E-04	9.108E-12
Tc-99	Tc-99	1.000E+00	1.000E+00	4.422E-01	8.648E-02	2.861E-04	2.341E-11	3.668E-36	0.000E+00	0.000E+00

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

RESRAD.EXE execution time = 23.97 seconds

Total water/soil iteration failures = 1.