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Part I: Mixture Sums and Single Radionuclide Guidelines

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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)

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	C14GInhDCF
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)

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
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)

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				

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				

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				

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)
D-34				



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				

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 & area. See ETEG table in Ground Pathway of Detailed Report.  
 \*Base Case means Default.Lib w/o Associate Nuclide contributions.

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	2.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	4.000E+00	2.000E+00	---	THICK0
R011	Fraction of contamination that is submerged	1.000E+00	0.000E+00	---	SUBMFRACT
R011	Length parallel to aquifer flow (m)	8.300E+01	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	0.000E+00	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T( 2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T( 3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T( 4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T( 5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T( 6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T( 7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T( 8)
R011	Times for calculations (yr)	not used	0.000E+00	---	T( 9)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(10)
R012	Initial principal radionuclide (pCi/g): 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)

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)	9.200E-01	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	1.500E+00	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	2.920E-03	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	1.490E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	0.000E+00	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.500E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.400E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	4.350E+03	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	3.600E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.750E+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)	4.000E+00	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	0	1	---	NS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Am-241				
R016	Contaminated zone (cm**3/g)	2.690E+02	2.000E+01	---	DCNUCC ( 2)
R016	Saturated zone (cm**3/g)	2.690E+02	2.000E+01	---	DCNUCS ( 2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.479E-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)	1.260E+00	0.000E+00	---	DCNUCC ( 4)
R016	Saturated zone (cm**3/g)	1.260E+00	0.000E+00	---	DCNUCS ( 4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.550E-02	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)	3.990E+02	1.000E+03	---	DCNUCC ( 5)
R016	Saturated zone (cm**3/g)	3.990E+02	1.000E+03	---	DCNUCS ( 5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	9.973E-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)	5.720E+02	-1.000E+00	---	DCNUCC ( 6)
R016	Saturated zone (cm**3/g)	5.720E+02	-1.000E+00	---	DCNUCS ( 6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.959E-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)	5.720E+02	-1.000E+00	---	DCNUCC ( 8)
R016	Saturated zone (cm**3/g)	5.720E+02	-1.000E+00	---	DCNUCS ( 8)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.959E-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)	3.700E+01	1.000E+03	---	DCNUCC (11)
R016	Saturated zone (cm**3/g)	3.700E+01	1.000E+03	---	DCNUCS (11)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.068E-03	ALEACH (11)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (11)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	3.700E+01	1.000E+03	---	DCNUCC (12)
R016	Saturated zone (cm**3/g)	3.700E+01	1.000E+03	---	DCNUCS (12)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.068E-03	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)	1.580E+02	4.600E+03	---	DCNUCC (13)
R016	Saturated zone (cm**3/g)	1.580E+02	4.600E+03	---	DCNUCS (13)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.516E-04	ALEACH (13)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (13)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	1.580E+02	4.600E+03	---	DCNUCC (14)
R016	Saturated zone (cm**3/g)	1.580E+02	4.600E+03	---	DCNUCS (14)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.516E-04	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)	9.450E+01	-1.000E+00	---	DCNUCC (15)
R016	Saturated zone (cm**3/g)	9.450E+01	-1.000E+00	---	DCNUCS (15)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.201E-04	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)	9.450E+01	-1.000E+00	---	DCNUCC (17)
R016	Saturated zone (cm**3/g)	9.450E+01	-1.000E+00	---	DCNUCS (17)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.201E-04	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)	9.450E+01	-1.000E+00	---	DCNUCC (18)
R016	Saturated zone (cm**3/g)	9.450E+01	-1.000E+00	---	DCNUCS (18)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.201E-04	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)	3.210E+02	1.000E+03	---	DCNUCC (19)
R016	Saturated zone (cm**3/g)	3.210E+02	1.000E+03	---	DCNUCS (19)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.239E-04	ALEACH (19)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (19)
R016	Distribution coefficients for H-3				
R016	Contaminated zone (cm**3/g)	4.300E-02	0.000E+00	---	DCNUCC (21)
R016	Saturated zone (cm**3/g)	4.300E-02	0.000E+00	---	DCNUCS (21)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.154E-01	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)	2.760E+01	1.000E+03	---	DCNUCC (22)
R016	Saturated zone (cm**3/g)	2.760E+01	1.000E+03	---	DCNUCS (22)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.427E-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)	2.760E+01	1.000E+03	---	DCNUCC (23)
R016	Saturated zone (cm**3/g)	2.760E+01	1.000E+03	---	DCNUCS (23)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.427E-03	ALEACH (23)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (23)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Np-237				
R016	Contaminated zone (cm**3/g)	5.490E+00	-1.000E+00	---	DCNUCC (24)
R016	Saturated zone (cm**3/g)	5.490E+00	-1.000E+00	---	DCNUCS (24)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.876E-03	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)	1.560E+02	2.000E+03	---	DCNUCC (28)
R016	Saturated zone (cm**3/g)	1.560E+02	2.000E+03	---	DCNUCS (28)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.548E-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)	1.560E+02	2.000E+03	---	DCNUCC (30)
R016	Saturated zone (cm**3/g)	1.560E+02	2.000E+03	---	DCNUCS (30)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.548E-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)	1.560E+02	2.000E+03	---	DCNUCC (31)
R016	Saturated zone (cm**3/g)	1.560E+02	2.000E+03	---	DCNUCS (31)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.548E-04	ALEACH (31)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (31)
R016	Distribution coefficients for Pu-241				
R016	Contaminated zone (cm**3/g)	1.560E+02	2.000E+03	---	DCNUCC (33)
R016	Saturated zone (cm**3/g)	1.560E+02	2.000E+03	---	DCNUCS (33)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.548E-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)	5.070E+00	0.000E+00	---	DCNUCC (37)
R016	Saturated zone (cm**3/g)	5.070E+00	0.000E+00	---	DCNUCS (37)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.413E-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)	6.570E+00	3.000E+01	---	DCNUCC (39)
R016	Saturated zone (cm**3/g)	6.570E+00	3.000E+01	---	DCNUCS (39)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.795E-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)	1.900E-02	0.000E+00	---	DCNUCC (40)
R016	Saturated zone (cm**3/g)	1.900E-02	0.000E+00	---	DCNUCS (40)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.241E-01	ALEACH (40)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (40)



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 Ac-227				
R016	Contaminated zone (cm**3/g)	8.290E+02	2.000E+01	---	DCNUCC ( 1)
R016	Saturated zone (cm**3/g)	8.290E+02	2.000E+01	---	DCNUCS ( 1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.802E-05	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)	1.000E+03	2.000E+01	---	DCNUCC ( 3)
R016	Saturated zone (cm**3/g)	1.000E+03	2.000E+01	---	DCNUCS ( 3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.981E-05	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)	8.290E+02	-1.000E+00	---	DCNUCC (20)
R016	Saturated zone (cm**3/g)	8.290E+02	-1.000E+00	---	DCNUCS (20)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.802E-05	ALEACH (20)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (20)
R016	Distribution coefficients for daughter Pa-231				
R016	Contaminated zone (cm**3/g)	3.800E+02	5.000E+01	---	DCNUCC (25)
R016	Saturated zone (cm**3/g)	3.800E+02	5.000E+01	---	DCNUCS (25)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.047E-04	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)	2.190E+02	1.000E+02	---	DCNUCC (26)
R016	Saturated zone (cm**3/g)	2.190E+02	1.000E+02	---	DCNUCS (26)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.816E-04	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+02	1.000E+01	---	DCNUCC (27)
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+01	---	DCNUCS (27)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.970E-04	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)	3.100E+03	7.000E+01	---	DCNUCC (35)
R016	Saturated zone (cm**3/g)	3.100E+03	7.000E+01	---	DCNUCS (35)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.285E-05	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)	3.100E+03	7.000E+01	---	DCNUCC (36)
R016	Saturated zone (cm**3/g)	3.100E+03	7.000E+01	---	DCNUCS (36)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.285E-05	ALEACH (36)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (36)

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 Te-125m				
R016	Contaminated zone (cm**3/g)	3.810E+01	0.000E+00	---	DCNUCC (41)
R016	Saturated zone (cm**3/g)	3.810E+01	0.000E+00	---	DCNUCS (41)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.037E-03	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)	6.990E+02	6.000E+04	---	DCNUCC (42)
R016	Saturated zone (cm**3/g)	6.990E+02	6.000E+04	---	DCNUCS (42)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.695E-05	ALEACH (42)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (42)
R016	Distribution coefficients for daughter Th-229				
R016	Contaminated zone (cm**3/g)	6.990E+02	6.000E+04	---	DCNUCC (43)
R016	Saturated zone (cm**3/g)	6.990E+02	6.000E+04	---	DCNUCS (43)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.695E-05	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)	6.990E+02	6.000E+04	---	DCNUCC (44)
R016	Saturated zone (cm**3/g)	6.990E+02	6.000E+04	---	DCNUCS (44)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.695E-05	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)	6.990E+02	6.000E+04	---	DCNUCC (45)
R016	Saturated zone (cm**3/g)	6.990E+02	6.000E+04	---	DCNUCS (45)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.695E-05	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)	1.100E+02	5.000E+01	---	DCNUCC (46)
R016	Saturated zone (cm**3/g)	1.100E+02	5.000E+01	---	DCNUCS (46)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.610E-04	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)	1.100E+02	5.000E+01	---	DCNUCC (47)
R016	Saturated zone (cm**3/g)	1.100E+02	5.000E+01	---	DCNUCS (47)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.610E-04	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)	1.100E+02	5.000E+01	---	DCNUCC (48)
R016	Saturated zone (cm**3/g)	1.100E+02	5.000E+01	---	DCNUCS (48)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.610E-04	ALEACH (48)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (48)

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 U-236				
R016	Contaminated zone (cm**3/g)	1.100E+02	5.000E+01	---	DCNUCC (49)
R016	Saturated zone (cm**3/g)	1.100E+02	5.000E+01	---	DCNUCS (49)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.610E-04	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
R017	Mass loading for inhalation (g/m**3)	2.350E-05	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	5.500E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	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

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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
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)	3.080E+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)	1.270E+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	7.000E-01	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	3.500E-01	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	2.150E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	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):				

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	not used	3.000E-07	---	DIFFL
R021	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
R021	Height of the building (room) (m)	not used	2.500E+00	---	HRM
R021	Building interior area factor	not used	0.000E+00	---	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA(1)
R021	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA(2)
TITL	Number of graphical time points	128	---	---	NPTS
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\FILL DSR\FCS FILL DSR.RAD

Contaminated Zone Dimensions

Initial Soil Concentrations, pCi/g

Area: 20000.00 square meters  
 Thickness: 4.00 meters  
 Cover Depth: 0.92 meters

Am-241 1.000E+00  
 C-14 1.000E+00  
 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):	5.337E+02	5.281E+02	5.178E+02	4.874E+02	4.190E+02	2.633E+02	8.751E+01	2.140E+01
M(t):	2.135E+01	2.112E+01	2.071E+01	1.950E+01	1.676E+01	1.053E+01	3.500E+00	8.559E-01

Maximum TDOSE(t): 5.337E+02 mrem/yr at t = 0.000E+00 years

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	6.471E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.230E-01	0.0012	4.729E-04	0.0000	2.242E-04	0.0000	0.000E+00	0.0000
C-14	1.056E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.514E-02	0.0001	1.503E-02	0.0000	1.573E-02	0.0000	0.000E+00	0.0000
Ce-144	1.388E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.156E-03	0.0000	2.584E-06	0.0000	2.755E-05	0.0000	0.000E+00	0.0000
Cm-243	2.155E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.248E-01	0.0008	2.292E-04	0.0000	1.782E-04	0.0000	0.000E+00	0.0000
Cm-244	1.016E-22	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.395E-01	0.0006	1.832E-04	0.0000	1.424E-04	0.0000	0.000E+00	0.0000
Co-58	2.952E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.330E-02	0.0000	1.052E-02	0.0000	4.726E-03	0.0000	0.000E+00	0.0000
Co-60	1.462E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.443E-01	0.0006	2.723E-01	0.0005	1.224E-01	0.0002	0.000E+00	0.0000
Cs-134	9.824E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.562E-01	0.0009	3.958E-01	0.0007	6.900E-01	0.0013	0.000E+00	0.0000
Cs-137	3.133E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.622E-01	0.0007	3.142E-01	0.0006	5.479E-01	0.0010	0.000E+00	0.0000
Eu-152	2.831E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.488E-03	0.0000	1.323E-04	0.0000	3.076E-05	0.0000	0.000E+00	0.0000
Eu-154	3.514E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.619E-03	0.0000	1.924E-04	0.0000	4.474E-05	0.0000	0.000E+00	0.0000
Eu-155	2.641E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.626E-04	0.0000	2.991E-05	0.0000	6.957E-06	0.0000	0.000E+00	0.0000
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.170E-05	0.0000	4.778E-05	0.0000	4.839E-06	0.0000	0.000E+00	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.279E-02	0.0000	1.420E-03	0.0000	1.132E-02	0.0000	0.000E+00	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.794E-03	0.0000	2.197E-04	0.0000	6.317E-03	0.0000	0.000E+00	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.910E-03	0.0000	6.014E-04	0.0000	1.729E-02	0.0000	0.000E+00	0.0000
Np-237	3.959E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.522E+01	0.0285	3.202E-01	0.0006	2.706E-02	0.0001	0.000E+00	0.0000
Pu-238	4.061E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.460E-01	0.0010	8.230E-04	0.0000	8.378E-05	0.0000	0.000E+00	0.0000
Pu-239	9.556E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.064E-01	0.0011	9.141E-04	0.0000	9.305E-05	0.0000	0.000E+00	0.0000
Pu-240	1.911E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.063E-01	0.0011	9.140E-04	0.0000	9.304E-05	0.0000	0.000E+00	0.0000
Pu-241	6.824E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.193E-02	0.0000	1.765E-05	0.0000	1.932E-06	0.0000	0.000E+00	0.0000
Sb-125	1.316E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.282E-02	0.0001	1.411E-03	0.0000	1.067E-03	0.0000	0.000E+00	0.0000
Sr-90	8.997E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.317E+00	0.0156	1.442E+00	0.0027	2.535E+00	0.0048	0.000E+00	0.0000
Tc-99	1.064E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.183E+00	0.0022	2.525E-03	0.0000	2.096E-01	0.0004	0.000E+00	0.0000
Total	2.283E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.916E+01	0.0546	2.780E+00	0.0052	4.190E+00	0.0079	0.000E+00	0.0000

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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 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	6.455E+00	0.0121	0.000E+00	0.0000	0.000E+00	0.0000	9.416E-01	0.0018	4.409E-03	0.0000	1.495E-03	0.0000	8.026E+00	0.0150
C-14	6.315E-01	0.0012	0.000E+00	0.0000	0.000E+00	0.0000	4.109E-01	0.0008	3.717E-01	0.0007	2.541E-01	0.0005	1.744E+00	0.0033
Ce-144	1.674E-02	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.442E-03	0.0000	7.545E-06	0.0000	5.753E-05	0.0000	2.443E-02	0.0000
Cm-243	2.071E+00	0.0039	0.000E+00	0.0000	0.000E+00	0.0000	3.021E-01	0.0006	1.005E-03	0.0000	5.590E-04	0.0000	2.800E+00	0.0052
Cm-244	1.656E+00	0.0031	0.000E+00	0.0000	0.000E+00	0.0000	2.415E-01	0.0005	8.040E-04	0.0000	4.468E-04	0.0000	2.238E+00	0.0042
Co-58	1.247E-02	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.879E-03	0.0000	8.887E-03	0.0000	2.860E-03	0.0000	5.464E-02	0.0001
Co-60	3.228E-01	0.0006	0.000E+00	0.0000	0.000E+00	0.0000	4.863E-02	0.0001	2.301E-01	0.0004	7.404E-02	0.0001	1.415E+00	0.0027
Cs-134	1.880E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	2.789E-02	0.0001	1.468E-01	0.0003	1.832E-01	0.0003	2.088E+00	0.0039
Cs-137	1.492E-01	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	2.214E-02	0.0000	1.166E-01	0.0002	1.454E-01	0.0003	1.658E+00	0.0031
Eu-152	3.183E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	4.645E-03	0.0000	1.522E-03	0.0000	2.532E-04	0.0000	4.093E-02	0.0001
Eu-154	4.629E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	6.756E-03	0.0000	2.214E-03	0.0000	3.683E-04	0.0000	5.952E-02	0.0001
Eu-155	7.198E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.050E-03	0.0000	3.442E-04	0.0000	5.726E-05	0.0000	9.250E-03	0.0000
Fe-55	7.964E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.162E-04	0.0000	3.733E-04	0.0000	2.704E-05	0.0000	1.457E-03	0.0000
H-3	8.150E-02	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	9.966E-03	0.0000	5.076E-03	0.0000	2.216E-02	0.0000	1.442E-01	0.0003
Ni-59	3.595E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.350E-04	0.0000	3.966E-04	0.0000	8.160E-03	0.0000	2.102E-02	0.0000
Ni-63	9.842E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.465E-03	0.0000	1.086E-03	0.0000	2.234E-02	0.0000	5.754E-02	0.0001
Np-237	3.655E+02	0.6848	0.000E+00	0.0000	0.000E+00	0.0000	5.373E+01	0.1007	6.920E+00	0.0130	4.184E-01	0.0008	4.421E+02	0.8284
Pu-238	9.746E+00	0.0183	0.000E+00	0.0000	0.000E+00	0.0000	1.422E+00	0.0027	1.322E-02	0.0000	9.623E-04	0.0000	1.173E+01	0.0220
Pu-239	1.082E+01	0.0203	0.000E+00	0.0000	0.000E+00	0.0000	1.579E+00	0.0030	1.468E-02	0.0000	1.069E-03	0.0000	1.303E+01	0.0244
Pu-240	1.082E+01	0.0203	0.000E+00	0.0000	0.000E+00	0.0000	1.579E+00	0.0030	1.468E-02	0.0000	1.069E-03	0.0000	1.303E+01	0.0244
Pu-241	2.093E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.055E-02	0.0001	2.814E-04	0.0000	2.145E-05	0.0000	2.521E-01	0.0005
Sb-125	2.282E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.402E-02	0.0001	6.174E-03	0.0000	2.444E-03	0.0000	3.062E-01	0.0006
Sr-90	1.047E+01	0.0196	0.000E+00	0.0000	0.000E+00	0.0000	1.731E+00	0.0032	1.646E+00	0.0031	2.077E+00	0.0039	2.822E+01	0.0529
Tc-99	2.045E+00	0.0038	0.000E+00	0.0000	0.000E+00	0.0000	9.114E-01	0.0017	4.414E-03	0.0000	2.745E-01	0.0005	4.630E+00	0.0087
Total	4.215E+02	0.7898	0.000E+00	0.0000	0.000E+00	0.0000	6.304E+01	0.1181	9.511E+00	0.0178	3.491E+00	0.0065	5.337E+02	1.0000

\*Sum of all water independent and dependent pathways.



Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	2.025E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.228E-01	0.0012	4.728E-04	0.0000	2.241E-04	0.0000	0.000E+00	0.0000
C-14	1.171E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.407E-02	0.0001	1.468E-02	0.0000	1.536E-02	0.0000	0.000E+00	0.0000
Ce-144	5.896E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.119E-03	0.0000	1.062E-06	0.0000	1.132E-05	0.0000	0.000E+00	0.0000
Cm-243	2.232E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.151E-01	0.0008	2.240E-04	0.0000	1.741E-04	0.0000	0.000E+00	0.0000
Cm-244	3.263E-22	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.273E-01	0.0006	1.766E-04	0.0000	1.373E-04	0.0000	0.000E+00	0.0000
Co-58	8.586E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.727E-04	0.0000	2.945E-04	0.0000	1.323E-04	0.0000	0.000E+00	0.0000
Co-60	1.325E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.020E-01	0.0006	2.388E-01	0.0005	1.074E-01	0.0002	0.000E+00	0.0000
Cs-134	7.309E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.263E-01	0.0006	2.831E-01	0.0005	4.936E-01	0.0009	0.000E+00	0.0000
Cs-137	3.191E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.544E-01	0.0007	3.074E-01	0.0006	5.359E-01	0.0010	0.000E+00	0.0000
Eu-152	2.787E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.364E-03	0.0000	1.257E-04	0.0000	2.923E-05	0.0000	0.000E+00	0.0000
Eu-154	3.366E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.348E-03	0.0000	1.779E-04	0.0000	4.139E-05	0.0000	0.000E+00	0.0000
Eu-155	2.496E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.897E-04	0.0000	2.603E-05	0.0000	6.055E-06	0.0000	0.000E+00	0.0000
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.103E-05	0.0000	3.700E-05	0.0000	3.748E-06	0.0000	0.000E+00	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.080E-02	0.0000	1.201E-03	0.0000	9.568E-03	0.0000	0.000E+00	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.793E-03	0.0000	2.196E-04	0.0000	6.316E-03	0.0000	0.000E+00	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.875E-03	0.0000	5.970E-04	0.0000	1.717E-02	0.0000	0.000E+00	0.0000
Np-237	4.140E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.513E+01	0.0287	3.185E-01	0.0006	2.691E-02	0.0001	0.000E+00	0.0000
Pu-238	4.483E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.423E-01	0.0010	8.174E-04	0.0000	8.323E-05	0.0000	0.000E+00	0.0000
Pu-239	1.014E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.070E-01	0.0011	9.150E-04	0.0000	9.314E-05	0.0000	0.000E+00	0.0000
Pu-240	2.102E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.069E-01	0.0011	9.149E-04	0.0000	9.313E-05	0.0000	0.000E+00	0.0000
Pu-241	6.962E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.236E-02	0.0000	1.759E-05	0.0000	2.194E-06	0.0000	0.000E+00	0.0000
Sb-125	1.062E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.333E-02	0.0001	1.628E-03	0.0000	1.180E-03	0.0000	0.000E+00	0.0000
Sr-90	9.198E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.086E+00	0.0153	1.402E+00	0.0027	2.465E+00	0.0047	0.000E+00	0.0000
Tc-99	1.031E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.047E+00	0.0020	2.241E-03	0.0000	1.859E-01	0.0004	0.000E+00	0.0000
Total	2.063E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.849E+01	0.0539	2.574E+00	0.0049	3.865E+00	0.0073	0.000E+00	0.0000

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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 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	6.444E+00	0.0122	0.000E+00	0.0000	0.000E+00	0.0000	9.399E-01	0.0018	4.403E-03	0.0000	1.492E-03	0.0000	8.013E+00	0.0152
C-14	6.155E-01	0.0012	0.000E+00	0.0000	0.000E+00	0.0000	4.005E-01	0.0008	3.624E-01	0.0007	2.477E-01	0.0005	1.700E+00	0.0032
Ce-144	6.868E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.002E-03	0.0000	3.097E-06	0.0000	2.361E-05	0.0000	1.003E-02	0.0000
Cm-243	2.022E+00	0.0038	0.000E+00	0.0000	0.000E+00	0.0000	2.949E-01	0.0006	9.815E-04	0.0000	5.455E-04	0.0000	2.734E+00	0.0052
Cm-244	1.595E+00	0.0030	0.000E+00	0.0000	0.000E+00	0.0000	2.326E-01	0.0004	7.753E-04	0.0000	4.301E-04	0.0000	2.156E+00	0.0041
Co-58	3.488E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.257E-05	0.0000	2.485E-04	0.0000	8.000E-05	0.0000	1.529E-03	0.0000
Co-60	2.828E-01	0.0005	0.000E+00	0.0000	0.000E+00	0.0000	4.259E-02	0.0001	2.016E-01	0.0004	6.485E-02	0.0001	1.240E+00	0.0023
Cs-134	1.343E-01	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	1.992E-02	0.0000	1.049E-01	0.0002	1.308E-01	0.0002	1.493E+00	0.0028
Cs-137	1.458E-01	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	2.163E-02	0.0000	1.139E-01	0.0002	1.421E-01	0.0003	1.621E+00	0.0031
Eu-152	3.021E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	4.408E-03	0.0000	1.445E-03	0.0000	2.403E-04	0.0000	3.885E-02	0.0001
Eu-154	4.277E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	6.242E-03	0.0000	2.045E-03	0.0000	3.403E-04	0.0000	5.500E-02	0.0001
Eu-155	6.257E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.131E-04	0.0000	2.992E-04	0.0000	4.977E-05	0.0000	8.041E-03	0.0000
Fe-55	6.160E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.985E-05	0.0000	2.887E-04	0.0000	2.091E-05	0.0000	1.127E-03	0.0000
H-3	6.866E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	8.401E-03	0.0000	4.281E-03	0.0000	1.867E-02	0.0000	1.216E-01	0.0002
Ni-59	3.590E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.342E-04	0.0000	3.960E-04	0.0000	8.149E-03	0.0000	2.100E-02	0.0000
Ni-63	9.757E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.452E-03	0.0000	1.076E-03	0.0000	2.215E-02	0.0000	5.707E-02	0.0001
Np-237	3.630E+02	0.6874	0.000E+00	0.0000	0.000E+00	0.0000	5.337E+01	0.1011	6.874E+00	0.0130	4.155E-01	0.0008	4.391E+02	0.8315
Pu-238	9.667E+00	0.0183	0.000E+00	0.0000	0.000E+00	0.0000	1.410E+00	0.0027	1.311E-02	0.0000	9.546E-04	0.0000	1.163E+01	0.0220
Pu-239	1.082E+01	0.0205	0.000E+00	0.0000	0.000E+00	0.0000	1.578E+00	0.0030	1.468E-02	0.0000	1.068E-03	0.0000	1.302E+01	0.0247
Pu-240	1.082E+01	0.0205	0.000E+00	0.0000	0.000E+00	0.0000	1.578E+00	0.0030	1.467E-02	0.0000	1.068E-03	0.0000	1.302E+01	0.0247
Pu-241	2.095E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.058E-02	0.0001	2.752E-04	0.0000	2.279E-05	0.0000	2.528E-01	0.0005
Sb-125	1.784E-01	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	2.669E-02	0.0001	5.038E-03	0.0000	2.022E-03	0.0000	2.483E-01	0.0005
Sr-90	1.017E+01	0.0193	0.000E+00	0.0000	0.000E+00	0.0000	1.681E+00	0.0032	1.598E+00	0.0030	2.017E+00	0.0038	2.742E+01	0.0519
Tc-99	1.807E+00	0.0034	0.000E+00	0.0000	0.000E+00	0.0000	8.056E-01	0.0015	3.908E-03	0.0000	2.428E-01	0.0005	4.094E+00	0.0078
Total	4.180E+02	0.7917	0.000E+00	0.0000	0.000E+00	0.0000	6.245E+01	0.1183	9.323E+00	0.0177	3.318E+00	0.0063	5.281E+02	1.0000

\*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	5.186E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.223E-01	0.0012	4.726E-04	0.0000	2.240E-04	0.0000	0.000E+00	0.0000
C-14	1.439E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.198E-02	0.0001	1.399E-02	0.0000	1.463E-02	0.0000	0.000E+00	0.0000
Ce-144	1.064E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.579E-04	0.0000	1.793E-07	0.0000	1.912E-06	0.0000	0.000E+00	0.0000
Cm-243	2.392E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.965E-01	0.0008	2.139E-04	0.0000	1.663E-04	0.0000	0.000E+00	0.0000
Cm-244	8.850E-22	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.040E-01	0.0006	1.642E-04	0.0000	1.275E-04	0.0000	0.000E+00	0.0000
Co-58	7.264E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.922E-07	0.0000	2.309E-07	0.0000	1.037E-07	0.0000	0.000E+00	0.0000
Co-60	1.088E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.323E-01	0.0004	1.837E-01	0.0004	8.257E-02	0.0002	0.000E+00	0.0000
Cs-134	4.046E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.670E-01	0.0003	1.448E-01	0.0003	2.525E-01	0.0005	0.000E+00	0.0000
Cs-137	3.309E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.391E-01	0.0007	2.941E-01	0.0006	5.129E-01	0.0010	0.000E+00	0.0000
Eu-152	2.701E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.135E-03	0.0000	1.135E-04	0.0000	2.639E-05	0.0000	0.000E+00	0.0000
Eu-154	3.090E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.865E-03	0.0000	1.523E-04	0.0000	3.542E-05	0.0000	0.000E+00	0.0000
Eu-155	2.230E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.710E-04	0.0000	1.972E-05	0.0000	4.587E-06	0.0000	0.000E+00	0.0000
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.261E-05	0.0000	2.220E-05	0.0000	2.248E-06	0.0000	0.000E+00	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.682E-03	0.0000	8.546E-04	0.0000	6.808E-03	0.0000	0.000E+00	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.793E-03	0.0000	2.196E-04	0.0000	6.315E-03	0.0000	0.000E+00	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.804E-03	0.0000	5.883E-04	0.0000	1.692E-02	0.0000	0.000E+00	0.0000
Np-237	4.529E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.497E+01	0.0289	3.150E-01	0.0006	2.662E-02	0.0001	0.000E+00	0.0000
Pu-238	6.368E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.349E-01	0.0010	8.064E-04	0.0000	8.213E-05	0.0000	0.000E+00	0.0000
Pu-239	1.140E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.083E-01	0.0012	9.170E-04	0.0000	9.334E-05	0.0000	0.000E+00	0.0000
Pu-240	2.542E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.081E-01	0.0012	9.167E-04	0.0000	9.332E-05	0.0000	0.000E+00	0.0000
Pu-241	7.317E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.315E-02	0.0000	1.745E-05	0.0000	2.683E-06	0.0000	0.000E+00	0.0000
Sb-125	6.911E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.005E-02	0.0000	9.833E-04	0.0000	7.118E-04	0.0000	0.000E+00	0.0000
Sr-90	9.613E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.641E+00	0.0148	1.325E+00	0.0026	2.329E+00	0.0045	0.000E+00	0.0000
Tc-99	9.680E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.190E-01	0.0016	1.753E-03	0.0000	1.454E-01	0.0003	0.000E+00	0.0000
Total	1.749E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.734E+01	0.0528	2.285E+00	0.0044	3.396E+00	0.0066	0.000E+00	0.0000

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	6.422E+00	0.0124	0.000E+00	0.0000	0.000E+00	0.0000	9.367E-01	0.0018	4.392E-03	0.0000	1.487E-03	0.0000	7.987E+00	0.0154
C-14	5.848E-01	0.0011	0.000E+00	0.0000	0.000E+00	0.0000	3.805E-01	0.0007	3.443E-01	0.0007	2.353E-01	0.0005	1.616E+00	0.0031
Ce-144	1.157E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.688E-04	0.0000	5.216E-07	0.0000	3.977E-06	0.0000	1.690E-03	0.0000
Cm-243	1.926E+00	0.0037	0.000E+00	0.0000	0.000E+00	0.0000	2.809E-01	0.0005	9.356E-04	0.0000	5.196E-04	0.0000	2.605E+00	0.0050
Cm-244	1.479E+00	0.0029	0.000E+00	0.0000	0.000E+00	0.0000	2.157E-01	0.0004	7.210E-04	0.0000	3.986E-04	0.0000	2.000E+00	0.0039
Co-58	2.727E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.110E-08	0.0000	1.943E-07	0.0000	6.254E-08	0.0000	1.197E-06	0.0000
Co-60	2.169E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.267E-02	0.0001	1.546E-01	0.0003	4.975E-02	0.0001	9.526E-01	0.0018
Cs-134	6.851E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	1.017E-02	0.0000	5.352E-02	0.0001	6.676E-02	0.0001	7.633E-01	0.0015
Cs-137	1.391E-01	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	2.064E-02	0.0000	1.087E-01	0.0002	1.356E-01	0.0003	1.550E+00	0.0030
Eu-152	2.720E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	3.969E-03	0.0000	1.301E-03	0.0000	2.164E-04	0.0000	3.499E-02	0.0001
Eu-154	3.651E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	5.328E-03	0.0000	1.746E-03	0.0000	2.904E-04	0.0000	4.695E-02	0.0001
Eu-155	4.727E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.899E-04	0.0000	2.261E-04	0.0000	3.761E-05	0.0000	6.076E-03	0.0000
Fe-55	3.685E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.376E-05	0.0000	1.727E-04	0.0000	1.251E-05	0.0000	6.746E-04	0.0000
H-3	4.872E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	5.961E-03	0.0000	3.038E-03	0.0000	1.325E-02	0.0000	8.631E-02	0.0002
Ni-59	3.580E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.327E-04	0.0000	3.949E-04	0.0000	8.125E-03	0.0000	2.096E-02	0.0000
Ni-63	9.590E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.427E-03	0.0000	1.058E-03	0.0000	2.177E-02	0.0000	5.616E-02	0.0001
Np-237	3.580E+02	0.6914	0.000E+00	0.0000	0.000E+00	0.0000	5.264E+01	0.1017	6.780E+00	0.0131	4.099E-01	0.0008	4.331E+02	0.8365
Pu-238	9.511E+00	0.0184	0.000E+00	0.0000	0.000E+00	0.0000	1.387E+00	0.0027	1.290E-02	0.0000	9.395E-04	0.0000	1.145E+01	0.0221
Pu-239	1.082E+01	0.0209	0.000E+00	0.0000	0.000E+00	0.0000	1.578E+00	0.0030	1.467E-02	0.0000	1.068E-03	0.0000	1.302E+01	0.0251
Pu-240	1.081E+01	0.0209	0.000E+00	0.0000	0.000E+00	0.0000	1.577E+00	0.0030	1.466E-02	0.0000	1.067E-03	0.0000	1.301E+01	0.0251
Pu-241	2.099E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.063E-02	0.0001	2.632E-04	0.0000	2.524E-05	0.0000	2.540E-01	0.0005
Sb-125	1.066E-01	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	1.594E-02	0.0000	3.011E-03	0.0000	1.208E-03	0.0000	1.485E-01	0.0003
Sr-90	9.583E+00	0.0185	0.000E+00	0.0000	0.000E+00	0.0000	1.584E+00	0.0031	1.507E+00	0.0029	1.901E+00	0.0037	2.587E+01	0.0500
Tc-99	1.410E+00	0.0027	0.000E+00	0.0000	0.000E+00	0.0000	6.286E-01	0.0012	3.049E-03	0.0000	1.895E-01	0.0004	3.197E+00	0.0062
Total	4.114E+02	0.7945	0.000E+00	0.0000	0.000E+00	0.0000	6.133E+01	0.1184	9.010E+00	0.0174	3.038E+00	0.0059	5.178E+02	1.0000

\*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	2.166E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.205E-01	0.0013	4.720E-04	0.0000	2.234E-04	0.0000	0.000E+00	0.0000
C-14	2.963E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.542E-02	0.0001	1.180E-02	0.0000	1.235E-02	0.0000	0.000E+00	0.0000
Ce-144	2.659E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.084E-07	0.0000	3.550E-10	0.0000	3.785E-09	0.0000	0.000E+00	0.0000
Cm-243	3.051E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.375E-01	0.0007	1.822E-04	0.0000	1.415E-04	0.0000	0.000E+00	0.0000
Cm-244	4.548E-21	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.351E-01	0.0005	1.274E-04	0.0000	9.845E-05	0.0000	0.000E+00	0.0000
Co-58	1.279E-21	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.941E-18	0.0000	3.114E-18	0.0000	1.399E-18	0.0000	0.000E+00	0.0000
Co-60	5.464E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.270E-02	0.0002	7.331E-02	0.0002	3.295E-02	0.0001	0.000E+00	0.0000
Cs-134	5.108E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.600E-02	0.0000	1.388E-02	0.0000	2.419E-02	0.0000	0.000E+00	0.0000
Cs-137	3.760E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.907E-01	0.0006	2.521E-01	0.0005	4.396E-01	0.0009	0.000E+00	0.0000
Eu-152	2.421E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.493E-03	0.0000	7.936E-05	0.0000	1.846E-05	0.0000	0.000E+00	0.0000
Eu-154	2.289E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.661E-03	0.0000	8.831E-05	0.0000	2.054E-05	0.0000	0.000E+00	0.0000
Eu-155	1.501E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.404E-04	0.0000	7.462E-06	0.0000	1.736E-06	0.0000	0.000E+00	0.0000
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.124E-06	0.0000	3.712E-06	0.0000	3.759E-07	0.0000	0.000E+00	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.334E-03	0.0000	2.596E-04	0.0000	2.068E-03	0.0000	0.000E+00	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.792E-03	0.0000	2.194E-04	0.0000	6.311E-03	0.0000	0.000E+00	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.565E-03	0.0000	5.590E-04	0.0000	1.608E-02	0.0000	0.000E+00	0.0000
Np-237	6.197E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.440E+01	0.0295	3.030E-01	0.0006	2.561E-02	0.0001	0.000E+00	0.0000
Pu-238	4.980E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.100E-01	0.0010	7.688E-04	0.0000	7.839E-05	0.0000	0.000E+00	0.0000
Pu-239	1.721E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.128E-01	0.0013	9.238E-04	0.0000	9.403E-05	0.0000	0.000E+00	0.0000
Pu-240	4.960E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.123E-01	0.0013	9.230E-04	0.0000	9.396E-05	0.0000	0.000E+00	0.0000
Pu-241	9.662E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.541E-02	0.0000	1.707E-05	0.0000	4.069E-06	0.0000	0.000E+00	0.0000
Sb-125	1.537E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.334E-03	0.0000	1.635E-04	0.0000	1.183E-04	0.0000	0.000E+00	0.0000
Sr-90	1.122E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.270E+00	0.0129	1.087E+00	0.0022	1.911E+00	0.0039	0.000E+00	0.0000
Tc-99	7.757E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.469E-01	0.0007	7.425E-04	0.0000	6.159E-02	0.0001	0.000E+00	0.0000
Total	1.062E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.441E+01	0.0501	1.747E+00	0.0036	2.533E+00	0.0052	0.000E+00	0.0000

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	6.344E+00	0.0130	0.000E+00	0.0000	0.000E+00	0.0000	9.254E-01	0.0019	4.354E-03	0.0000	1.470E-03	0.0000	7.897E+00	0.0162
C-14	4.888E-01	0.0010	0.000E+00	0.0000	0.000E+00	0.0000	3.181E-01	0.0007	2.878E-01	0.0006	1.967E-01	0.0004	1.351E+00	0.0028
Ce-144	2.269E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.311E-07	0.0000	1.023E-09	0.0000	7.799E-09	0.0000	3.321E-06	0.0000
Cm-243	1.626E+00	0.0033	0.000E+00	0.0000	0.000E+00	0.0000	2.371E-01	0.0005	7.915E-04	0.0000	4.383E-04	0.0000	2.202E+00	0.0045
Cm-244	1.138E+00	0.0023	0.000E+00	0.0000	0.000E+00	0.0000	1.660E-01	0.0003	5.608E-04	0.0000	3.054E-04	0.0000	1.540E+00	0.0032
Co-58	3.644E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.492E-19	0.0000	2.596E-18	0.0000	8.357E-19	0.0000	1.608E-17	0.0000
Co-60	8.575E-02	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	1.292E-02	0.0000	6.113E-02	0.0001	1.967E-02	0.0000	3.785E-01	0.0008
Cs-134	6.502E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.648E-04	0.0000	5.080E-03	0.0000	6.336E-03	0.0000	7.295E-02	0.0001
Cs-137	1.181E-01	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	1.753E-02	0.0000	9.230E-02	0.0002	1.151E-01	0.0002	1.326E+00	0.0027
Eu-152	1.885E-02	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.750E-03	0.0000	9.013E-04	0.0000	1.499E-04	0.0000	2.426E-02	0.0000
Eu-154	2.097E-02	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.061E-03	0.0000	1.003E-03	0.0000	1.668E-04	0.0000	2.699E-02	0.0001
Eu-155	1.772E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.586E-04	0.0000	8.475E-05	0.0000	1.410E-05	0.0000	2.279E-03	0.0000
Fe-55	6.105E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.904E-06	0.0000	2.861E-05	0.0000	2.073E-06	0.0000	1.118E-04	0.0000
H-3	1.466E-02	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.794E-03	0.0000	9.141E-04	0.0000	3.987E-03	0.0000	2.602E-02	0.0001
Ni-59	3.544E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.274E-04	0.0000	3.909E-04	0.0000	8.044E-03	0.0000	2.083E-02	0.0000
Ni-63	9.027E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.343E-03	0.0000	9.957E-04	0.0000	2.049E-02	0.0000	5.306E-02	0.0001
Np-237	3.412E+02	0.7000	0.000E+00	0.0000	0.000E+00	0.0000	5.016E+01	0.1029	6.461E+00	0.0133	3.906E-01	0.0008	4.129E+02	0.8472
Pu-238	8.983E+00	0.0184	0.000E+00	0.0000	0.000E+00	0.0000	1.310E+00	0.0027	1.218E-02	0.0000	8.883E-04	0.0000	1.082E+01	0.0222
Pu-239	1.079E+01	0.0221	0.000E+00	0.0000	0.000E+00	0.0000	1.574E+00	0.0032	1.464E-02	0.0000	1.066E-03	0.0000	1.300E+01	0.0267
Pu-240	1.079E+01	0.0221	0.000E+00	0.0000	0.000E+00	0.0000	1.573E+00	0.0032	1.463E-02	0.0000	1.065E-03	0.0000	1.299E+01	0.0266
Pu-241	2.103E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.069E-02	0.0001	2.292E-04	0.0000	3.206E-05	0.0000	2.567E-01	0.0005
Sb-125	1.755E-02	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.626E-03	0.0000	4.960E-04	0.0000	1.990E-04	0.0000	2.449E-02	0.0001
Sr-90	7.790E+00	0.0160	0.000E+00	0.0000	0.000E+00	0.0000	1.288E+00	0.0026	1.225E+00	0.0025	1.545E+00	0.0032	2.112E+01	0.0433
Tc-99	5.915E-01	0.0012	0.000E+00	0.0000	0.000E+00	0.0000	2.637E-01	0.0005	1.279E-03	0.0000	7.951E-02	0.0002	1.345E+00	0.0028
<b>Total</b>	<b>3.902E+02</b>	<b>0.8007</b>	<b>0.000E+00</b>	<b>0.0000</b>	<b>0.000E+00</b>	<b>0.0000</b>	<b>5.789E+01</b>	<b>0.1188</b>	<b>8.185E+00</b>	<b>0.0168</b>	<b>2.391E+00</b>	<b>0.0049</b>	<b>4.874E+02</b>	<b>1.0000</b>

\*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	1.624E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.152E-01	0.0015	4.697E-04	0.0000	2.216E-04	0.0000	0.000E+00	0.0000
C-14	2.332E-22	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.178E-02	0.0001	7.259E-03	0.0000	7.594E-03	0.0000	0.000E+00	0.0000
Ce-144	9.762E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.337E-14	0.0000	6.697E-18	0.0000	7.140E-17	0.0000	0.000E+00	0.0000
Cm-243	6.111E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.130E-01	0.0005	1.153E-04	0.0000	8.926E-05	0.0000	0.000E+00	0.0000
Cm-244	6.386E-20	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.130E-01	0.0003	6.212E-05	0.0000	4.709E-05	0.0000	0.000E+00	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	7.635E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.714E-03	0.0000	5.310E-03	0.0000	2.387E-03	0.0000	0.000E+00	0.0000
Cs-134	1.381E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.966E-05	0.0000	1.705E-05	0.0000	2.973E-05	0.0000	0.000E+00	0.0000
Cs-137	5.417E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.870E-01	0.0004	1.622E-01	0.0004	2.829E-01	0.0007	0.000E+00	0.0000
Eu-152	1.771E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.372E-04	0.0000	2.856E-05	0.0000	6.642E-06	0.0000	0.000E+00	0.0000
Eu-154	9.720E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.500E-04	0.0000	1.861E-05	0.0000	4.328E-06	0.0000	0.000E+00	0.0000
Eu-155	4.848E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.735E-06	0.0000	4.643E-07	0.0000	1.080E-07	0.0000	0.000E+00	0.0000
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.298E-08	0.0000	2.239E-08	0.0000	2.268E-09	0.0000	0.000E+00	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.751E-05	0.0000	8.623E-06	0.0000	6.869E-05	0.0000	0.000E+00	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.788E-03	0.0000	2.189E-04	0.0000	6.296E-03	0.0000	0.000E+00	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.942E-03	0.0000	4.828E-04	0.0000	1.388E-02	0.0000	0.000E+00	0.0000
Np-237	1.518E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.288E+01	0.0307	2.711E-01	0.0006	2.291E-02	0.0001	0.000E+00	0.0000
Pu-238	1.892E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.448E-01	0.0011	6.705E-04	0.0000	6.860E-05	0.0000	0.000E+00	0.0000
Pu-239	5.585E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.256E-01	0.0015	9.430E-04	0.0000	9.599E-05	0.0000	0.000E+00	0.0000
Pu-240	3.366E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.241E-01	0.0015	9.408E-04	0.0000	9.577E-05	0.0000	0.000E+00	0.0000
Pu-241	3.797E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.884E-02	0.0000	1.644E-05	0.0000	6.208E-06	0.0000	0.000E+00	0.0000
Sb-125	2.098E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.979E-05	0.0000	9.706E-07	0.0000	7.026E-07	0.0000	0.000E+00	0.0000
Sr-90	1.745E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.561E+00	0.0085	6.174E-01	0.0015	1.086E+00	0.0026	0.000E+00	0.0000
Tc-99	4.119E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.979E-02	0.0001	6.376E-05	0.0000	5.289E-03	0.0000	0.000E+00	0.0000
Total	4.065E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.935E+01	0.0462	1.067E+00	0.0025	1.428E+00	0.0034	0.000E+00	0.0000

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	6.128E+00	0.0146	0.000E+00	0.0000	0.000E+00	0.0000	8.938E-01	0.0021	4.242E-03	0.0000	1.422E-03	0.0000	7.643E+00	0.0182
C-14	2.928E-01	0.0007	0.000E+00	0.0000	0.000E+00	0.0000	1.906E-01	0.0005	1.724E-01	0.0004	1.178E-01	0.0003	8.103E-01	0.0019
Ce-144	4.169E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.084E-15	0.0000	1.880E-17	0.0000	1.433E-16	0.0000	6.139E-14	0.0000
Cm-243	1.003E+00	0.0024	0.000E+00	0.0000	0.000E+00	0.0000	1.463E-01	0.0003	4.926E-04	0.0000	2.696E-04	0.0000	1.363E+00	0.0033
Cm-244	5.444E-01	0.0013	0.000E+00	0.0000	0.000E+00	0.0000	7.941E-02	0.0002	2.821E-04	0.0000	1.434E-04	0.0000	7.374E-01	0.0018
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	6.050E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.113E-04	0.0000	4.313E-03	0.0000	1.388E-03	0.0000	2.708E-02	0.0001
Cs-134	7.782E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.155E-06	0.0000	6.079E-06	0.0000	7.583E-06	0.0000	8.903E-05	0.0000
Cs-137	7.405E-02	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	1.099E-02	0.0000	5.785E-02	0.0001	7.216E-02	0.0002	8.472E-01	0.0020
Eu-152	6.605E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.640E-04	0.0000	3.159E-04	0.0000	5.255E-05	0.0000	8.528E-03	0.0000
Eu-154	4.303E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.280E-04	0.0000	2.058E-04	0.0000	3.424E-05	0.0000	5.554E-03	0.0000
Eu-155	1.074E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.567E-05	0.0000	5.136E-06	0.0000	8.544E-07	0.0000	1.384E-04	0.0000
Fe-55	3.587E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.232E-08	0.0000	1.681E-07	0.0000	1.218E-08	0.0000	6.590E-07	0.0000
H-3	4.743E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.803E-05	0.0000	2.957E-05	0.0000	1.290E-04	0.0000	8.457E-04	0.0000
Ni-59	3.443E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.124E-04	0.0000	3.798E-04	0.0000	7.816E-03	0.0000	2.045E-02	0.0000
Ni-63	7.593E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.130E-03	0.0000	8.376E-04	0.0000	1.724E-02	0.0000	4.510E-02	0.0001
Np-237	2.973E+02	0.7097	0.000E+00	0.0000	0.000E+00	0.0000	4.372E+01	0.1043	5.631E+00	0.0134	3.404E-01	0.0008	3.602E+02	0.8598
Pu-238	7.631E+00	0.0182	0.000E+00	0.0000	0.000E+00	0.0000	1.113E+00	0.0027	1.035E-02	0.0000	7.574E-04	0.0000	9.201E+00	0.0220
Pu-239	1.073E+01	0.0256	0.000E+00	0.0000	0.000E+00	0.0000	1.565E+00	0.0037	1.456E-02	0.0000	1.060E-03	0.0000	1.294E+01	0.0309
Pu-240	1.071E+01	0.0256	0.000E+00	0.0000	0.000E+00	0.0000	1.562E+00	0.0037	1.452E-02	0.0000	1.057E-03	0.0000	1.291E+01	0.0308
Pu-241	2.077E-01	0.0005	0.000E+00	0.0000	0.000E+00	0.0000	3.030E-02	0.0001	1.752E-04	0.0000	4.181E-05	0.0000	2.571E-01	0.0006
Sb-125	1.015E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.519E-05	0.0000	2.868E-06	0.0000	1.151E-06	0.0000	1.422E-04	0.0000
Sr-90	4.310E+00	0.0103	0.000E+00	0.0000	0.000E+00	0.0000	7.123E-01	0.0017	6.775E-01	0.0016	8.549E-01	0.0020	1.182E+01	0.0282
Tc-99	4.947E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	2.206E-02	0.0001	1.070E-04	0.0000	6.650E-03	0.0000	1.134E-01	0.0003
Total	3.391E+02	0.8093	0.000E+00	0.0000	0.000E+00	0.0000	5.005E+01	0.1195	6.590E+00	0.0157	1.423E+00	0.0034	4.190E+02	1.0000

\*Sum of all water independent and dependent pathways.



Summary : RESRAD Default Parameters

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

As mrem/yr and Fraction of Total Dose At t = 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	1.489E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.939E-01	0.0023	4.583E-04	0.0000	2.143E-04	0.0000	0.000E+00	0.0000
C-14	3.190E-19	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.955E-03	0.0000	1.318E-03	0.0000	1.379E-03	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	6.955E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.280E-02	0.0002	2.379E-05	0.0000	1.776E-05	0.0000	0.000E+00	0.0000
Cm-244	7.068E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.014E-02	0.0000	7.226E-06	0.0000	3.772E-06	0.0000	0.000E+00	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	7.784E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.833E-07	0.0000	5.403E-07	0.0000	2.429E-07	0.0000	0.000E+00	0.0000
Cs-134	1.417E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.272E-15	0.0000	1.103E-15	0.0000	1.923E-15	0.0000	0.000E+00	0.0000
Cs-137	1.944E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.978E-02	0.0002	3.451E-02	0.0001	6.017E-02	0.0002	0.000E+00	0.0000
Eu-152	5.932E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.494E-05	0.0000	7.942E-07	0.0000	1.847E-07	0.0000	0.000E+00	0.0000
Eu-154	4.848E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.495E-06	0.0000	7.945E-08	0.0000	1.848E-08	0.0000	0.000E+00	0.0000
Eu-155	9.283E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.222E-10	0.0000	2.776E-11	0.0000	6.457E-12	0.0000	0.000E+00	0.0000
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.291E-16	0.0000	3.798E-16	0.0000	3.847E-17	0.0000	0.000E+00	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.150E-10	0.0000	5.729E-11	0.0000	4.564E-10	0.0000	0.000E+00	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.764E-03	0.0000	2.160E-04	0.0000	6.211E-03	0.0000	0.000E+00	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.347E-03	0.0000	2.875E-04	0.0000	8.268E-03	0.0000	0.000E+00	0.0000
Np-237	3.497E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.685E+00	0.0330	1.828E-01	0.0007	1.545E-02	0.0001	0.000E+00	0.0000
Pu-238	5.803E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.742E-01	0.0010	4.134E-04	0.0000	4.302E-05	0.0000	0.000E+00	0.0000
Pu-239	3.436E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.690E-01	0.0025	1.009E-03	0.0000	1.027E-04	0.0000	0.000E+00	0.0000
Pu-240	2.591E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.639E-01	0.0025	1.001E-03	0.0000	1.019E-04	0.0000	0.000E+00	0.0000
Pu-241	4.235E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.034E-02	0.0001	1.572E-05	0.0000	7.312E-06	0.0000	0.000E+00	0.0000
Sb-125	6.223E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.174E-13	0.0000	1.557E-14	0.0000	1.127E-14	0.0000	0.000E+00	0.0000
Sr-90	8.191E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.893E-01	0.0019	8.483E-02	0.0003	1.492E-01	0.0006	0.000E+00	0.0000
Tc-99	4.496E-19	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.499E-06	0.0000	1.177E-08	0.0000	9.764E-07	0.0000	0.000E+00	0.0000
Total	2.944E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.150E+01	0.0437	3.069E-01	0.0012	2.411E-01	0.0009	0.000E+00	0.0000

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	5.426E+00	0.0206	0.000E+00	0.0000	0.000E+00	0.0000	7.914E-01	0.0030	3.847E-03	0.0000	1.263E-03	0.0000	6.817E+00	0.0259
C-14	4.874E-02	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	3.171E-02	0.0001	2.870E-02	0.0001	1.961E-02	0.0001	1.354E-01	0.0005
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	1.921E-01	0.0007	0.000E+00	0.0000	0.000E+00	0.0000	2.802E-02	0.0001	1.032E-04	0.0000	4.990E-05	0.0000	2.631E-01	0.0010
Cm-244	6.428E-02	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	9.376E-03	0.0000	5.602E-05	0.0000	1.247E-05	0.0000	8.388E-02	0.0003
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	5.644E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.501E-08	0.0000	4.023E-07	0.0000	1.294E-07	0.0000	2.655E-06	0.0000
Cs-134	4.615E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.848E-17	0.0000	3.605E-16	0.0000	4.497E-16	0.0000	5.640E-15	0.0000
Cs-137	1.444E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	2.142E-03	0.0000	1.128E-02	0.0000	1.407E-02	0.0001	1.764E-01	0.0007
Eu-152	1.684E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.457E-05	0.0000	8.053E-06	0.0000	1.340E-06	0.0000	2.242E-04	0.0000
Eu-154	1.685E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.458E-06	0.0000	8.056E-07	0.0000	1.340E-07	0.0000	2.232E-05	0.0000
Eu-155	5.886E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.590E-10	0.0000	2.815E-10	0.0000	4.683E-11	0.0000	7.630E-09	0.0000
Fe-55	5.578E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.136E-16	0.0000	2.614E-15	0.0000	1.894E-16	0.0000	1.034E-14	0.0000
H-3	2.889E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.535E-10	0.0000	1.801E-10	0.0000	7.857E-10	0.0000	5.237E-09	0.0000
Ni-59	3.114E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.634E-04	0.0000	3.435E-04	0.0000	7.068E-03	0.0000	1.918E-02	0.0001
Ni-63	4.145E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.169E-04	0.0000	4.572E-04	0.0000	9.409E-03	0.0000	2.553E-02	0.0001
Np-237	1.838E+02	0.6980	0.000E+00	0.0000	0.000E+00	0.0000	2.702E+01	0.1026	3.480E+00	0.0132	2.104E-01	0.0008	2.233E+02	0.8484
Pu-238	4.312E+00	0.0164	0.000E+00	0.0000	0.000E+00	0.0000	6.290E-01	0.0024	5.849E-03	0.0000	4.357E-04	0.0000	5.222E+00	0.0198
Pu-239	1.052E+01	0.0400	0.000E+00	0.0000	0.000E+00	0.0000	1.535E+00	0.0058	1.427E-02	0.0001	1.039E-03	0.0000	1.274E+01	0.0484
Pu-240	1.044E+01	0.0397	0.000E+00	0.0000	0.000E+00	0.0000	1.523E+00	0.0058	1.416E-02	0.0001	1.031E-03	0.0000	1.264E+01	0.0480
Pu-241	1.864E-01	0.0007	0.000E+00	0.0000	0.000E+00	0.0000	2.719E-02	0.0001	1.324E-04	0.0000	4.315E-05	0.0000	2.342E-01	0.0009
Sb-125	1.492E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.233E-13	0.0000	4.216E-14	0.0000	1.692E-14	0.0000	2.120E-12	0.0000
Sr-90	5.428E-01	0.0021	0.000E+00	0.0000	0.000E+00	0.0000	8.972E-02	0.0003	8.533E-02	0.0003	1.077E-01	0.0004	1.549E+00	0.0059
Tc-99	8.372E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.733E-06	0.0000	1.811E-08	0.0000	1.125E-06	0.0000	1.974E-05	0.0000
Total	2.155E+02	0.8186	0.000E+00	0.0000	0.000E+00	0.0000	3.168E+01	0.1204	3.644E+00	0.0138	3.721E-01	0.0014	2.633E+02	1.0000

\*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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 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	1.427E-03	0.0000	2.356E-03	0.0000	0.000E+00	0.0000	5.189E-01	0.0059	4.996E-03	0.0001	1.120E-03	0.0000	2.502E-02	0.0003
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	7.380E-05	0.0000	6.058E-06	0.0000	0.000E+00	0.0000	1.338E-03	0.0000	2.058E-05	0.0000	1.875E-06	0.0000	6.458E-05	0.0000
Cm-244	1.320E-08	0.0000	9.671E-06	0.0000	0.000E+00	0.0000	2.142E-03	0.0000	4.078E-05	0.0000	1.980E-06	0.0000	1.034E-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	2.207E-17	0.0000	9.838E-24	0.0000	0.000E+00	0.0000	2.585E-18	0.0000	2.343E-18	0.0000	9.766E-19	0.0000	1.566E-21	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	7.486E-04	0.0000	2.564E-10	0.0000	0.000E+00	0.0000	4.610E-04	0.0000	5.089E-04	0.0000	7.788E-04	0.0000	5.206E-07	0.0000
Eu-152	2.606E-07	0.0000	2.863E-13	0.0000	0.000E+00	0.0000	5.179E-10	0.0000	1.670E-10	0.0000	2.033E-11	0.0000	1.087E-11	0.0000
Eu-154	9.229E-11	0.0000	1.190E-16	0.0000	0.000E+00	0.0000	2.451E-13	0.0000	7.904E-14	0.0000	9.621E-15	0.0000	5.146E-15	0.0000
Eu-155	1.146E-20	0.0000	1.896E-25	0.0000	0.000E+00	0.0000	4.326E-22	0.0000	1.395E-22	0.0000	1.698E-23	0.0000	9.080E-24	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	0.000E+00	0.0000	1.575E-08	0.0000	0.000E+00	0.0000	1.638E-03	0.0000	2.475E-04	0.0000	6.348E-03	0.0001	1.587E-06	0.0000
Ni-63	0.000E+00	0.0000	4.201E-09	0.0000	0.000E+00	0.0000	5.155E-04	0.0000	7.789E-05	0.0000	1.998E-03	0.0000	4.993E-07	0.0000
Np-237	2.858E-02	0.0003	6.150E-04	0.0000	0.000E+00	0.0000	2.718E+00	0.0311	9.044E-02	0.0010	6.055E-03	0.0001	6.550E-03	0.0001
Pu-238	6.328E-07	0.0000	3.040E-04	0.0000	0.000E+00	0.0000	6.655E-02	0.0008	1.269E-03	0.0000	6.975E-05	0.0000	3.212E-03	0.0000
Pu-239	4.443E-05	0.0000	3.538E-03	0.0000	0.000E+00	0.0000	7.836E-01	0.0090	1.494E-02	0.0002	7.213E-04	0.0000	3.782E-02	0.0004
Pu-240	4.729E-06	0.0000	3.457E-03	0.0000	0.000E+00	0.0000	7.656E-01	0.0087	1.460E-02	0.0002	7.050E-04	0.0000	3.695E-02	0.0004
Pu-241	4.906E-05	0.0000	8.100E-05	0.0000	0.000E+00	0.0000	1.784E-02	0.0002	1.718E-04	0.0000	3.852E-05	0.0000	8.603E-04	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	6.920E-07	0.0000	1.612E-09	0.0000	0.000E+00	0.0000	1.627E-03	0.0000	2.923E-04	0.0000	5.038E-04	0.0000	2.438E-07	0.0000
Tc-99	8.024E-22	0.0000	4.819E-24	0.0000	0.000E+00	0.0000	1.141E-16	0.0000	2.448E-19	0.0000	2.028E-17	0.0000	1.096E-21	0.0000
Total	3.093E-02	0.0004	1.037E-02	0.0001	0.000E+00	0.0000	4.878E+00	0.0557	1.276E-01	0.0015	1.834E-02	0.0002	1.106E-01	0.0013

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	3.827E+00	0.0437	0.000E+00	0.0000	0.000E+00	0.0000	5.583E-01	0.0064	2.810E-03	0.0000	8.960E-04	0.0000	4.943E+00	0.0565
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	1.323E-02	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	1.930E-03	0.0000	1.674E-05	0.0000	1.544E-06	0.0000	1.669E-02	0.0002
Cm-244	2.713E-02	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	3.958E-03	0.0000	3.678E-05	0.0000	2.683E-06	0.0000	3.343E-02	0.0004
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	1.725E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.598E-19	0.0000	1.229E-18	0.0000	3.956E-19	0.0000	3.159E-17	0.0000
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cs-137	1.351E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.005E-05	0.0000	1.056E-04	0.0000	1.317E-04	0.0000	2.890E-03	0.0000
Eu-152	4.713E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.877E-10	0.0000	2.254E-10	0.0000	3.749E-11	0.0000	2.669E-07	0.0000
Eu-154	2.231E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.255E-13	0.0000	1.067E-13	0.0000	1.774E-14	0.0000	9.531E-11	0.0000
Eu-155	3.936E-21	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.744E-22	0.0000	1.882E-22	0.0000	3.131E-23	0.0000	1.679E-20	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	2.336E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.477E-04	0.0000	2.577E-04	0.0000	5.303E-03	0.0001	1.648E-02	0.0002
Ni-63	7.352E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.094E-04	0.0000	8.110E-05	0.0000	1.669E-03	0.0000	5.186E-03	0.0001
Np-237	4.645E+01	0.5308	0.000E+00	0.0000	0.000E+00	0.0000	6.829E+00	0.0780	8.796E-01	0.0101	5.321E-02	0.0006	5.706E+01	0.6521
Pu-238	8.444E-01	0.0096	0.000E+00	0.0000	0.000E+00	0.0000	1.232E-01	0.0014	1.146E-03	0.0000	9.875E-05	0.0000	1.040E+00	0.0119
Pu-239	9.942E+00	0.1136	0.000E+00	0.0000	0.000E+00	0.0000	1.450E+00	0.0166	1.348E-02	0.0002	9.815E-04	0.0000	1.225E+01	0.1399
Pu-240	9.714E+00	0.1110	0.000E+00	0.0000	0.000E+00	0.0000	1.417E+00	0.0162	1.317E-02	0.0002	9.594E-04	0.0000	1.197E+01	0.1367
Pu-241	1.316E-01	0.0015	0.000E+00	0.0000	0.000E+00	0.0000	1.920E-02	0.0002	9.638E-05	0.0000	3.080E-05	0.0000	1.700E-01	0.0019
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	1.458E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.410E-04	0.0000	2.292E-04	0.0000	2.892E-04	0.0000	4.642E-03	0.0001
Tc-99	1.403E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.256E-17	0.0000	3.034E-19	0.0000	1.886E-17	0.0000	3.566E-16	0.0000
Total	7.095E+01	0.8108	0.000E+00	0.0000	0.000E+00	0.0000	1.040E+01	0.1189	9.111E-01	0.0104	6.357E-02	0.0007	8.751E+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\FILL DSR\FCS FILL DSR.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 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	3.587E-03	0.0002	8.480E-04	0.0000	0.000E+00	0.0000	1.545E-01	0.0072	1.776E-03	0.0001	3.918E-04	0.0000	9.007E-03	0.0004
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	3.512E-06	0.0000	4.283E-06	0.0000	0.000E+00	0.0000	7.841E-04	0.0000	1.777E-05	0.0000	8.585E-07	0.0000	4.578E-05	0.0000
Cm-244	1.364E-07	0.0000	9.197E-06	0.0000	0.000E+00	0.0000	1.684E-03	0.0001	3.833E-05	0.0000	1.823E-06	0.0000	9.832E-05	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	1.108E-10	0.0000	2.496E-17	0.0000	0.000E+00	0.0000	3.709E-11	0.0000	4.280E-11	0.0000	6.404E-11	0.0000	5.068E-14	0.0000
Eu-152	5.389E-23	0.0000	8.731E-17	0.0000	0.000E+00	0.0000	1.753E-15	0.0000	5.250E-16	0.0000	2.101E-17	0.0000	7.494E-17	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	0.000E+00	0.0000	7.068E-09	0.0000	0.000E+00	0.0000	6.077E-04	0.0000	9.550E-05	0.0000	2.400E-03	0.0001	7.122E-07	0.0000
Ni-63	0.000E+00	0.0000	1.211E-11	0.0000	0.000E+00	0.0000	1.228E-06	0.0000	1.930E-07	0.0000	4.852E-06	0.0000	1.440E-09	0.0000
Np-237	5.531E-04	0.0000	7.792E-06	0.0000	0.000E+00	0.0000	2.245E-02	0.0010	8.057E-04	0.0000	6.812E-05	0.0000	6.952E-05	0.0000
Pu-238	2.176E-06	0.0000	1.612E-06	0.0000	0.000E+00	0.0000	2.537E-04	0.0000	6.656E-06	0.0000	9.480E-06	0.0000	1.416E-05	0.0000
Pu-239	1.037E-04	0.0000	3.559E-03	0.0002	0.000E+00	0.0000	6.517E-01	0.0305	1.483E-02	0.0007	7.047E-04	0.0000	3.805E-02	0.0018
Pu-240	4.885E-05	0.0000	3.294E-03	0.0002	0.000E+00	0.0000	6.032E-01	0.0282	1.373E-02	0.0006	6.530E-04	0.0000	3.522E-02	0.0016
Pu-241	1.234E-04	0.0000	2.916E-05	0.0000	0.000E+00	0.0000	5.313E-03	0.0002	6.109E-05	0.0000	1.347E-05	0.0000	3.097E-04	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	1.556E-15	0.0000	1.986E-18	0.0000	0.000E+00	0.0000	1.657E-12	0.0000	3.000E-13	0.0000	5.148E-13	0.0000	3.005E-16	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	4.422E-03	0.0002	7.753E-03	0.0004	0.000E+00	0.0000	1.440E+00	0.0673	3.137E-02	0.0015	4.248E-03	0.0002	8.281E-02	0.0039

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	1.124E+00	0.0525	0.000E+00	0.0000	0.000E+00	0.0000	1.639E-01	0.0077	8.403E-04	0.0000	2.639E-04	0.0000	1.459E+00	0.0682
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	9.733E-03	0.0005	0.000E+00	0.0000	0.000E+00	0.0000	1.420E-03	0.0001	1.319E-05	0.0000	9.628E-07	0.0000	1.202E-02	0.0006
Cm-244	2.106E-02	0.0010	0.000E+00	0.0000	0.000E+00	0.0000	3.072E-03	0.0001	2.857E-05	0.0000	2.082E-06	0.0000	2.600E-02	0.0012
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	1.072E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.591E-12	0.0000	8.376E-12	0.0000	1.045E-11	0.0000	2.859E-10	0.0000
Eu-152	3.026E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.415E-16	0.0000	7.200E-17	0.0000	4.299E-18	0.0000	6.005E-15	0.0000
Eu-154	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
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	8.547E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.272E-04	0.0000	9.428E-05	0.0000	1.940E-03	0.0001	6.121E-03	0.0003
Ni-63	1.728E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.571E-07	0.0000	1.906E-07	0.0000	3.922E-06	0.0000	1.237E-05	0.0000
Np-237	3.779E-01	0.0177	0.000E+00	0.0000	0.000E+00	0.0000	5.557E-02	0.0026	7.147E-03	0.0003	4.568E-04	0.0000	4.651E-01	0.0217
Pu-238	3.119E-03	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	4.550E-04	0.0000	5.275E-06	0.0000	1.366E-05	0.0000	3.881E-03	0.0002
Pu-239	8.152E+00	0.3810	0.000E+00	0.0000	0.000E+00	0.0000	1.189E+00	0.0556	1.105E-02	0.0005	8.048E-04	0.0000	1.006E+01	0.4702
Pu-240	7.545E+00	0.3526	0.000E+00	0.0000	0.000E+00	0.0000	1.101E+00	0.0514	1.023E-02	0.0005	7.460E-04	0.0000	9.313E+00	0.4353
Pu-241	3.865E-02	0.0018	0.000E+00	0.0000	0.000E+00	0.0000	5.637E-03	0.0003	2.889E-05	0.0000	9.074E-06	0.0000	5.017E-02	0.0023
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	1.465E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.421E-13	0.0000	2.302E-13	0.0000	2.905E-13	0.0000	4.701E-12	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	1.727E+01	0.8072	0.000E+00	0.0000	0.000E+00	0.0000	2.520E+00	0.1178	2.944E-02	0.0014	4.241E-03	0.0002	2.140E+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\FILL DSR\FCS FILL DSR.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	8.026E+00	8.013E+00	7.987E+00	7.895E+00	7.639E+00	6.807E+00	4.930E+00	1.454E+00	
Am-241	Np-237+D	1.000E+00	7.072E-05	2.130E-04	4.943E-04	1.442E-03	3.851E-03	9.509E-03	1.321E-02	4.914E-03	
Am-241	U-233	1.000E+00	5.379E-13	3.122E-12	1.483E-11	1.225E-10	9.545E-10	8.446E-09	4.593E-08	1.217E-07	
Am-241	Th-229+D	1.000E+00	7.387E-15	9.327E-15	1.174E-14	9.743E-14	2.110E-12	6.505E-11	1.333E-09	1.775E-08	
Am-241	ΣDSR (j)		8.026E+00	8.013E+00	7.987E+00	7.897E+00	7.643E+00	6.817E+00	4.943E+00	1.459E+00	
C-14	C-14	1.000E+00	1.744E+00	1.700E+00	1.616E+00	1.351E+00	8.103E-01	1.354E-01	0.000E+00	0.000E+00	
Ce-144+D	Ce-144+D	1.000E+00	2.443E-02	1.003E-02	1.690E-03	3.321E-06	6.139E-14	5.275E-41	0.000E+00	0.000E+00	
Cm-243	Cm-243	2.400E-03	6.720E-03	6.559E-03	6.249E-03	5.276E-03	3.253E-03	5.983E-04	4.970E-06	2.020E-13	
Cm-243	Am-243+D	2.400E-03	2.928E-07	8.667E-07	1.974E-06	5.458E-06	1.274E-05	2.252E-05	2.736E-05	2.729E-05	
Cm-243	Pu-239	2.400E-03	1.366E-11	9.674E-11	5.055E-10	4.285E-09	3.108E-08	2.164E-07	8.717E-07	2.795E-06	
Cm-243	U-235+D	2.400E-03	1.709E-23	2.604E-22	3.040E-21	2.095E-19	3.464E-17	9.208E-16	1.387E-14	1.758E-13	
Cm-243	Pa-231	2.400E-03	1.025E-26	3.409E-25	8.873E-24	6.924E-22	4.620E-20	4.928E-18	5.198E-16	2.234E-14	
Cm-243	Ac-227+D	2.400E-03	3.687E-18	5.051E-18	5.088E-18	2.553E-18	6.097E-18	6.964E-18	1.863E-16	9.686E-15	
Cm-243	ΣDSR (j)		6.720E-03	6.560E-03	6.251E-03	5.282E-03	3.265E-03	6.210E-04	3.321E-05	3.009E-05	
Cm-243	Cm-243	9.976E-01	2.793E+00	2.726E+00	2.598E+00	2.193E+00	1.352E+00	2.487E-01	2.066E-03	8.395E-11	
Cm-243	Pu-239	9.976E-01	1.846E-04	5.497E-04	1.254E-03	3.463E-03	8.029E-03	1.384E-02	1.459E-02	1.199E-02	
Cm-243	U-235+D	9.976E-01	7.889E-15	4.798E-14	2.462E-13	2.077E-12	1.503E-11	1.040E-10	4.545E-10	1.523E-09	
Cm-243	Pa-231	9.976E-01	4.791E-16	7.324E-16	8.142E-16	3.257E-15	6.457E-14	1.665E-12	2.616E-11	2.994E-10	
Cm-243	Ac-227+D	9.976E-01	5.697E-16	7.723E-16	7.670E-16	6.983E-16	7.405E-15	4.124E-13	9.699E-12	1.339E-10	
Cm-243	ΣDSR (j)		2.793E+00	2.727E+00	2.599E+00	2.197E+00	1.360E+00	2.625E-01	1.665E-02	1.199E-02	
Cm-244	Cm-244	1.350E-06	3.021E-06	2.908E-06	2.694E-06	2.063E-06	9.621E-07	6.664E-08	3.279E-11	7.268E-23	
Cm-244	Cm-244	4.950E-08	1.108E-07	1.066E-07	9.879E-08	7.564E-08	3.528E-08	2.443E-09	1.202E-12	2.665E-24	
Cm-244	Pu-240	4.950E-08	3.356E-11	9.933E-11	2.236E-10	5.900E-10	1.224E-09	1.709E-09	1.653E-09	1.287E-09	
Cm-244	ΣDSR (j)		1.108E-07	1.067E-07	9.901E-08	7.623E-08	3.650E-08	4.152E-09	1.655E-09	1.287E-09	
Cm-244	Cm-244	1.000E+00	2.238E+00	2.154E+00	1.996E+00	1.528E+00	7.127E-01	4.936E-02	2.429E-05	5.384E-17	
Cm-244	Pu-240	1.000E+00	6.779E-04	2.007E-03	4.516E-03	1.192E-02	2.472E-02	3.452E-02	3.340E-02	2.600E-02	
Cm-244	U-236	1.000E+00	1.070E-12	2.824E-12	1.945E-11	2.131E-10	1.476E-09	8.726E-09	3.077E-08	8.540E-08	
Cm-244	Th-232	1.000E+00	3.577E-18	4.438E-18	3.094E-18	3.195E-18	4.480E-18	3.353E-17	3.677E-16	3.850E-15	
Cm-244	Ra-228+D	1.000E+00	3.865E-20	9.729E-20	2.539E-20	8.069E-20	1.938E-18	7.136E-17	1.424E-15	1.757E-14	
Cm-244	Th-228+D	1.000E+00	1.373E-18	1.616E-18	1.244E-18	1.251E-18	1.430E-18	8.675E-18	4.870E-16	8.051E-15	
Cm-244	ΣDSR (j)		2.238E+00	2.156E+00	2.000E+00	1.540E+00	7.374E-01	8.388E-02	3.343E-02	2.600E-02	
Co-58	Co-58	1.000E+00	5.464E-02	1.529E-03	1.197E-06	1.608E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
Co-60	Co-60	1.000E+00	1.415E+00	1.240E+00	9.526E-01	3.785E-01	2.708E-02	2.655E-06	3.159E-17	0.000E+00	
Cs-134	Cs-134	1.000E+00	2.088E+00	1.493E+00	7.633E-01	7.295E-02	8.903E-05	5.640E-15	8.268E-44	0.000E+00	
Cs-137+D	Cs-137+D	1.000E+00	1.658E+00	1.621E+00	1.550E+00	1.326E+00	8.472E-01	1.764E-01	2.890E-03	2.859E-10	

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	2.950E-02	2.800E-02	2.522E-02	1.749E-02	6.147E-03	1.616E-04	1.924E-07	3.938E-23	
Eu-152	Eu-152	2.792E-01	1.143E-02	1.085E-02	9.768E-03	6.774E-03	2.381E-03	6.260E-05	7.453E-08	1.526E-23	
Eu-152	Gd-152	2.792E-01	1.419E-16	3.941E-16	8.573E-16	2.148E-15	4.063E-15	5.172E-15	6.058E-15	6.005E-15	
Eu-152	ΣDSR (j)		1.143E-02	1.085E-02	9.768E-03	6.774E-03	2.381E-03	6.260E-05	7.453E-08	6.005E-15	
Eu-154	Eu-154	1.000E+00	5.952E-02	5.500E-02	4.695E-02	2.699E-02	5.554E-03	2.232E-05	9.531E-11	1.406E-34	
Eu-155	Eu-155	1.000E+00	9.250E-03	8.041E-03	6.076E-03	2.279E-03	1.384E-04	7.630E-09	1.679E-20	0.000E+00	
Fe-55	Fe-55	1.000E+00	1.457E-03	1.127E-03	6.746E-04	1.118E-04	6.590E-07	1.034E-14	8.037E-37	0.000E+00	
H-3	H-3	1.000E+00	1.442E-01	1.216E-01	8.631E-02	2.602E-02	8.457E-04	5.237E-09	0.000E+00	0.000E+00	
Ni-59	Ni-59	1.000E+00	2.102E-02	2.100E-02	2.096E-02	2.083E-02	2.045E-02	1.918E-02	1.648E-02	6.121E-03	
Ni-63	Ni-63	1.000E+00	5.754E-02	5.707E-02	5.616E-02	5.306E-02	4.510E-02	2.553E-02	5.186E-03	1.237E-05	
Np-237+D	Np-237+D	1.000E+00	4.421E+02	4.391E+02	4.331E+02	4.129E+02	3.602E+02	2.233E+02	5.706E+01	4.641E-01	
Np-237+D	U-233	1.000E+00	4.413E-06	1.138E-05	2.481E-05	7.037E-05	1.886E-04	4.905E-04	8.409E-04	7.612E-04	
Np-237+D	Th-229+D	1.000E+00	2.927E-10	1.802E-09	9.119E-09	7.910E-08	6.348E-07	5.913E-06	4.048E-05	1.861E-04	
Np-237+D	ΣDSR (j)		4.421E+02	4.391E+02	4.331E+02	4.129E+02	3.602E+02	2.233E+02	5.706E+01	4.651E-01	
Pu-238	Pu-238	1.840E-09	2.158E-08	2.141E-08	2.106E-08	1.990E-08	1.693E-08	9.608E-09	1.913E-09	6.360E-12	
Pu-238	Pu-238	1.000E+00	1.173E+01	1.163E+01	1.145E+01	1.082E+01	9.201E+00	5.222E+00	1.040E+00	3.457E-03	
Pu-238	U-234	1.000E+00	2.157E-06	6.466E-06	1.498E-05	4.368E-05	1.169E-04	2.939E-04	4.696E-04	4.048E-04	
Pu-238	Th-230	1.000E+00	2.450E-12	1.500E-11	7.647E-11	6.624E-10	5.276E-09	4.802E-08	2.884E-07	1.178E-06	
Pu-238	Ra-226+D	1.000E+00	2.145E-13	1.582E-13	6.453E-13	1.223E-11	2.937E-10	9.883E-09	3.139E-07	5.576E-06	
Pu-238	Pb-210+D	1.000E+00	2.430E-11	1.645E-11	2.345E-11	2.351E-11	2.054E-10	1.429E-08	4.620E-07	8.360E-06	
Pu-238	Po-210	1.000E+00	5.318E-12	2.995E-12	4.603E-12	4.989E-12	9.800E-11	8.038E-09	2.523E-07	4.581E-06	
Pu-238	ΣDSR (j)		1.173E+01	1.163E+01	1.145E+01	1.082E+01	9.201E+00	5.222E+00	1.040E+00	3.881E-03	
Pu-239	Pu-239	1.000E+00	1.303E+01	1.302E+01	1.302E+01	1.300E+01	1.294E+01	1.274E+01	1.225E+01	1.006E+01	
Pu-239	U-235+D	1.000E+00	7.098E-10	2.135E-09	4.985E-09	1.494E-08	4.317E-08	1.397E-07	4.417E-07	1.331E-06	
Pu-239	Pa-231	1.000E+00	8.378E-13	1.659E-12	4.387E-12	3.145E-11	2.614E-10	2.881E-09	2.883E-08	2.732E-07	
Pu-239	Ac-227+D	1.000E+00	2.675E-15	1.243E-14	3.594E-14	9.782E-13	3.303E-11	7.959E-10	1.097E-08	1.225E-07	
Pu-239	ΣDSR (j)		1.303E+01	1.302E+01	1.302E+01	1.300E+01	1.294E+01	1.274E+01	1.225E+01	1.006E+01	
Pu-240	Pu-240	4.950E-08	6.448E-07	6.446E-07	6.442E-07	6.429E-07	6.390E-07	6.258E-07	5.923E-07	4.610E-07	
Pu-240	Pu-240	1.000E+00	1.303E+01	1.302E+01	1.301E+01	1.299E+01	1.291E+01	1.264E+01	1.197E+01	9.313E+00	
Pu-240	U-236	1.000E+00	2.171E-08	6.374E-08	1.516E-07	4.523E-07	1.305E-06	4.208E-06	1.209E-05	3.142E-05	
Pu-240	Th-232	1.000E+00	4.091E-16	7.028E-16	3.231E-16	4.760E-16	1.657E-15	1.776E-14	1.560E-13	1.457E-12	
Pu-240	Ra-228+D	1.000E+00	1.219E-16	1.619E-16	1.084E-16	2.692E-16	2.746E-15	4.363E-14	6.114E-13	6.654E-12	
Pu-240	Th-228+D	1.000E+00	2.553E-22	4.561E-21	6.325E-20	1.979E-18	4.127E-17	3.634E-15	2.081E-13	3.049E-12	
Pu-240	ΣDSR (j)		1.303E+01	1.302E+01	1.301E+01	1.299E+01	1.291E+01	1.264E+01	1.197E+01	9.313E+00	



Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	2.457E-01	2.341E-01	2.126E-01	1.516E-01	5.765E-02	1.957E-03	1.247E-07	2.432E-22	
Pu-241	Am-241	1.000E+00	6.371E-03	1.863E-02	4.138E-02	1.051E-01	1.994E-01	2.319E-01	1.695E-01	5.000E-02	
Pu-241	Np-237+D	1.000E+00	3.707E-08	2.584E-07	1.324E-06	1.046E-05	6.302E-05	2.680E-04	4.391E-04	1.688E-04	
Pu-241	U-233	1.000E+00	1.601E-16	2.570E-15	2.780E-14	6.216E-13	1.142E-11	1.957E-10	1.389E-09	4.007E-09	
Pu-241	Th-229+D	1.000E+00	2.310E-18	1.842E-17	8.532E-18	1.716E-16	1.970E-14	1.293E-12	3.744E-11	5.683E-10	
Pu-241	ΣDSR (j)		2.521E-01	2.528E-01	2.539E-01	2.567E-01	2.571E-01	2.342E-01	1.700E-01	5.017E-02	
Pu-241+D	Pu-241+D	2.450E-05	6.300E-06	6.002E-06	5.449E-06	3.885E-06	1.478E-06	5.018E-08	4.262E-12	1.193E-26	
Pu-241+D	Np-237+D	2.450E-05	1.706E-09	5.036E-09	1.117E-08	2.787E-08	4.944E-08	4.203E-08	1.091E-08	8.872E-11	
Pu-241+D	U-233	2.450E-05	1.288E-17	7.434E-17	3.431E-16	2.557E-15	1.524E-14	6.754E-14	1.354E-13	1.258E-13	
Pu-241+D	Th-229+D	2.450E-05	2.083E-21	9.655E-21	8.426E-20	1.964E-18	3.735E-17	6.722E-16	5.988E-15	2.993E-14	
Pu-241+D	ΣDSR (j)		6.301E-06	6.007E-06	5.461E-06	3.913E-06	1.527E-06	9.221E-08	1.091E-08	8.887E-11	
Sb-125	Sb-125	7.720E-01	2.038E-01	1.575E-01	9.410E-02	1.550E-02	8.968E-05	1.321E-12	1.629E-34	0.000E+00	
Sb-125	Sb-125	2.280E-01	6.019E-02	4.652E-02	2.779E-02	4.578E-03	2.649E-05	3.902E-13	4.811E-35	0.000E+00	
Sb-125	Te-125m	2.280E-01	4.216E-02	4.423E-02	2.659E-02	4.411E-03	2.601E-05	4.082E-13	2.021E-35	0.000E+00	
Sb-125	ΣDSR (j)		1.024E-01	9.075E-02	5.438E-02	8.989E-03	5.249E-05	7.984E-13	6.833E-35	0.000E+00	
Sr-90+D	Sr-90+D	1.000E+00	2.822E+01	2.742E+01	2.587E+01	2.112E+01	1.182E+01	1.549E+00	4.642E-03	4.701E-12	
Tc-99	Tc-99	1.000E+00	4.630E+00	4.094E+00	3.197E+00	1.345E+00	1.134E-01	1.974E-05	3.566E-16	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\FILL DSR\FCS FILL DSR.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	3.115E+00	3.120E+00	3.130E+00	3.166E+00	3.271E+00	3.667E+00	5.057E+00	1.713E+01
C-14	1.433E+01	1.470E+01	1.547E+01	1.851E+01	3.085E+01	1.846E+02	*4.455E+12	*4.455E+12
Ce-144	1.023E+03	2.493E+03	1.479E+04	7.527E+06	4.072E+14	*3.191E+15	*3.191E+15	*3.191E+15
Cm-243	8.928E+00	9.146E+00	9.596E+00	1.135E+01	1.834E+01	9.500E+01	1.498E+03	2.079E+03
Cm-244	1.117E+01	1.160E+01	1.250E+01	1.623E+01	3.390E+01	2.980E+02	7.479E+02	9.616E+02
Co-58	4.575E+02	1.635E+04	2.088E+07	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16
Co-60	1.767E+01	2.016E+01	2.624E+01	6.605E+01	9.232E+02	9.415E+06	*1.132E+15	*1.132E+15
Cs-134	1.197E+01	1.675E+01	3.275E+01	3.427E+02	2.808E+05	*1.295E+15	*1.295E+15	*1.295E+15
Cs-137	1.508E+01	1.542E+01	1.613E+01	1.886E+01	2.951E+01	1.417E+02	8.650E+03	8.744E+10
Eu-152	6.108E+02	6.436E+02	7.145E+02	1.030E+03	2.932E+03	1.115E+05	9.365E+07	*1.765E+14
Eu-154	4.200E+02	4.546E+02	5.324E+02	9.261E+02	4.501E+03	1.120E+06	2.623E+11	*2.639E+14
Eu-155	2.703E+03	3.109E+03	4.115E+03	1.097E+04	1.807E+05	3.277E+09	*4.652E+14	*4.652E+14
Fe-55	1.716E+04	2.218E+04	3.706E+04	2.235E+05	3.794E+07	*2.410E+15	*2.410E+15	*2.410E+15
H-3	1.733E+02	2.056E+02	2.897E+02	9.609E+02	2.956E+04	4.774E+09	*9.597E+15	*9.597E+15
Ni-59	1.190E+03	1.191E+03	1.193E+03	1.200E+03	1.222E+03	1.303E+03	1.517E+03	4.085E+03
Ni-63	4.345E+02	4.380E+02	4.452E+02	4.712E+02	5.543E+02	9.792E+02	4.821E+03	2.021E+06
Np-237	5.655E-02	5.693E-02	5.772E-02	6.054E-02	6.940E-02	1.119E-01	4.381E-01	5.376E+01
Pu-238	2.131E+00	2.149E+00	2.184E+00	2.311E+00	2.717E+00	4.787E+00	2.403E+01	6.441E+03
Pu-239	1.919E+00	1.920E+00	1.920E+00	1.923E+00	1.932E+00	1.962E+00	2.041E+00	2.485E+00
Pu-240	1.919E+00	1.920E+00	1.921E+00	1.925E+00	1.936E+00	1.977E+00	2.089E+00	2.684E+00
Pu-241	9.916E+01	9.890E+01	9.844E+01	9.739E+01	9.725E+01	1.068E+02	1.471E+02	4.983E+02
Sb-125	8.165E+01	1.007E+02	1.684E+02	1.021E+03	1.758E+05	1.179E+13	*1.033E+15	*1.033E+15
Sr-90	8.859E-01	9.119E-01	9.664E-01	1.184E+00	2.115E+00	1.614E+01	5.386E+03	5.317E+12
Tc-99	5.399E+00	6.107E+00	7.820E+00	1.858E+01	2.204E+02	1.267E+06	*1.697E+10	*1.697E+10

\*At specific activity limit

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	8.026E+00	3.115E+00	8.026E+00	3.115E+00
C-14	1.000E+00	0.000E+00	1.744E+00	1.433E+01	1.744E+00	1.433E+01
Ce-144	1.000E+00	0.000E+00	2.443E-02	1.023E+03	2.443E-02	1.023E+03
Cm-243	1.000E+00	0.000E+00	2.800E+00	8.928E+00	2.800E+00	8.928E+00
Cm-244	1.000E+00	0.000E+00	2.238E+00	1.117E+01	2.238E+00	1.117E+01
Co-58	1.000E+00	0.000E+00	5.464E-02	4.575E+02	5.464E-02	4.575E+02
Co-60	1.000E+00	0.000E+00	1.415E+00	1.767E+01	1.415E+00	1.767E+01
Cs-134	1.000E+00	0.000E+00	2.088E+00	1.197E+01	2.088E+00	1.197E+01
Cs-137	1.000E+00	0.000E+00	1.658E+00	1.508E+01	1.658E+00	1.508E+01
Eu-152	1.000E+00	0.000E+00	4.093E-02	6.108E+02	4.093E-02	6.108E+02
Eu-154	1.000E+00	0.000E+00	5.952E-02	4.200E+02	5.952E-02	4.200E+02
Eu-155	1.000E+00	0.000E+00	9.250E-03	2.703E+03	9.250E-03	2.703E+03
Fe-55	1.000E+00	0.000E+00	1.457E-03	1.716E+04	1.457E-03	1.716E+04
H-3	1.000E+00	0.000E+00	1.442E-01	1.733E+02	1.442E-01	1.733E+02
Ni-59	1.000E+00	0.000E+00	2.102E-02	1.190E+03	2.102E-02	1.190E+03
Ni-63	1.000E+00	0.000E+00	5.754E-02	4.345E+02	5.754E-02	4.345E+02
Np-237	1.000E+00	0.000E+00	4.421E+02	5.655E-02	4.421E+02	5.655E-02
Pu-238	1.000E+00	0.000E+00	1.173E+01	2.131E+00	1.173E+01	2.131E+00
Pu-239	1.000E+00	0.000E+00	1.303E+01	1.919E+00	1.303E+01	1.919E+00
Pu-240	1.000E+00	0.000E+00	1.303E+01	1.919E+00	1.303E+01	1.919E+00
Pu-241	1.000E+00	20.06 ± 0.04	2.579E-01	9.693E+01	2.521E-01	9.916E+01
Sb-125	1.000E+00	0.000E+00	3.062E-01	8.165E+01	3.062E-01	8.165E+01
Sr-90	1.000E+00	0.000E+00	2.822E+01	8.859E-01	2.822E+01	8.859E-01
Tc-99	1.000E+00	0.000E+00	4.630E+00	5.399E+00	4.630E+00	5.399E+00

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	8.026E+00	8.013E+00	7.987E+00	7.895E+00	7.639E+00	6.807E+00	4.930E+00	1.454E+00
Am-241	Pu-241	1.000E+00	6.371E-03	1.863E-02	4.138E-02	1.051E-01	1.994E-01	2.319E-01	1.695E-01	5.000E-02
Am-241	ΣDOSE(j)		8.033E+00	8.032E+00	8.028E+00	8.000E+00	7.839E+00	7.039E+00	5.100E+00	1.504E+00
Np-237	Am-241	1.000E+00	7.072E-05	2.130E-04	4.943E-04	1.442E-03	3.851E-03	9.509E-03	1.321E-02	4.914E-03
Np-237	Np-237	1.000E+00	4.421E+02	4.391E+02	4.331E+02	4.129E+02	3.602E+02	2.233E+02	5.706E+01	4.641E-01
Np-237	Pu-241	1.000E+00	3.707E-08	2.584E-07	1.324E-06	1.046E-05	6.302E-05	2.680E-04	4.391E-04	1.688E-04
Np-237	Pu-241	2.450E-05	1.706E-09	5.036E-09	1.117E-08	2.787E-08	4.944E-08	4.203E-08	1.091E-08	8.872E-11
Np-237	ΣDOSE(j)		4.421E+02	4.391E+02	4.331E+02	4.129E+02	3.602E+02	2.234E+02	5.708E+01	4.692E-01
U-233	Am-241	1.000E+00	5.379E-13	3.122E-12	1.483E-11	1.225E-10	9.545E-10	8.446E-09	4.593E-08	1.217E-07
U-233	Np-237	1.000E+00	4.413E-06	1.138E-05	2.481E-05	7.037E-05	1.886E-04	4.905E-04	8.409E-04	7.612E-04
U-233	Pu-241	1.000E+00	1.601E-16	2.570E-15	2.780E-14	6.216E-13	1.142E-11	1.957E-10	1.389E-09	4.007E-09
U-233	Pu-241	2.450E-05	1.288E-17	7.434E-17	3.431E-16	2.557E-15	1.524E-14	6.754E-14	1.354E-13	1.258E-13
U-233	ΣDOSE(j)		4.413E-06	1.138E-05	2.481E-05	7.037E-05	1.886E-04	4.905E-04	8.410E-04	7.613E-04
Th-229	Am-241	1.000E+00	7.387E-15	9.327E-15	1.174E-14	9.743E-14	2.110E-12	6.505E-11	1.333E-09	1.775E-08
Th-229	Np-237	1.000E+00	2.927E-10	1.802E-09	9.119E-09	7.910E-08	6.348E-07	5.913E-06	4.048E-05	1.861E-04
Th-229	Pu-241	1.000E+00	2.310E-18	1.842E-17	8.532E-18	1.716E-16	1.970E-14	1.293E-12	3.744E-11	5.683E-10
Th-229	Pu-241	2.450E-05	2.083E-21	9.655E-21	8.426E-20	1.964E-18	3.735E-17	6.722E-16	5.988E-15	2.993E-14
Th-229	ΣDOSE(j)		2.927E-10	1.802E-09	9.119E-09	7.910E-08	6.348E-07	5.913E-06	4.048E-05	1.861E-04
C-14	C-14	1.000E+00	1.744E+00	1.700E+00	1.616E+00	1.351E+00	8.103E-01	1.354E-01	0.000E+00	0.000E+00
Ce-144	Ce-144	1.000E+00	2.443E-02	1.003E-02	1.690E-03	3.321E-06	6.139E-14	0.000E+00	0.000E+00	0.000E+00
Cm-243	Cm-243	2.400E-03	6.720E-03	6.559E-03	6.249E-03	5.276E-03	3.253E-03	5.983E-04	4.970E-06	2.020E-13
Cm-243	Cm-243	9.976E-01	2.793E+00	2.726E+00	2.598E+00	2.193E+00	1.352E+00	2.487E-01	2.066E-03	8.395E-11
Cm-243	ΣDOSE(j)		2.800E+00	2.733E+00	2.604E+00	2.198E+00	1.355E+00	2.493E-01	2.071E-03	8.415E-11
Am-243	Cm-243	2.400E-03	2.928E-07	8.667E-07	1.974E-06	5.458E-06	1.274E-05	2.252E-05	2.736E-05	2.729E-05
Pu-239	Cm-243	2.400E-03	1.366E-11	9.674E-11	5.055E-10	4.285E-09	3.108E-08	2.164E-07	8.717E-07	2.795E-06
Pu-239	Cm-243	9.976E-01	1.846E-04	5.497E-04	1.254E-03	3.463E-03	8.029E-03	1.384E-02	1.459E-02	1.199E-02
Pu-239	Pu-239	1.000E+00	1.303E+01	1.302E+01	1.302E+01	1.300E+01	1.294E+01	1.274E+01	1.225E+01	1.006E+01
Pu-239	ΣDOSE(j)		1.303E+01	1.302E+01	1.302E+01	1.300E+01	1.295E+01	1.276E+01	1.226E+01	1.007E+01
U-235	Cm-243	2.400E-03	1.709E-23	2.604E-22	3.040E-21	2.095E-19	3.464E-17	9.208E-16	1.387E-14	1.758E-13
U-235	Cm-243	9.976E-01	7.889E-15	4.798E-14	2.462E-13	2.077E-12	1.503E-11	1.040E-10	4.545E-10	1.523E-09
U-235	Pu-239	1.000E+00	7.098E-10	2.135E-09	4.985E-09	1.494E-08	4.317E-08	1.397E-07	4.417E-07	1.331E-06
U-235	ΣDOSE(j)		7.099E-10	2.135E-09	4.985E-09	1.494E-08	4.318E-08	1.398E-07	4.422E-07	1.333E-06
Pa-231	Cm-243	2.400E-03	1.025E-26	3.409E-25	8.873E-24	6.924E-22	4.620E-20	4.928E-18	5.198E-16	2.234E-14
Pa-231	Cm-243	9.976E-01	4.791E-16	7.324E-16	8.142E-16	3.257E-15	6.457E-14	1.665E-12	2.616E-11	2.994E-10
Pa-231	Pu-239	1.000E+00	8.378E-13	1.659E-12	4.387E-12	3.145E-11	2.614E-10	2.881E-09	2.883E-08	2.732E-07
Pa-231	ΣDOSE(j)		8.383E-13	1.660E-12	4.388E-12	3.145E-11	2.615E-10	2.883E-09	2.885E-08	2.735E-07
Ac-227	Cm-243	2.400E-03	3.687E-18	5.051E-18	5.088E-18	2.553E-18	6.097E-18	6.964E-18	1.863E-16	9.686E-15
Ac-227	Cm-243	9.976E-01	5.697E-16	7.723E-16	7.670E-16	6.983E-16	7.405E-15	4.124E-13	9.699E-12	1.339E-10

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	2.675E-15	1.243E-14	3.594E-14	9.782E-13	3.303E-11	7.959E-10	1.097E-08	1.225E-07
Ac-227	ΣDOSE(j)		3.248E-15	1.321E-14	3.672E-14	9.789E-13	3.304E-11	7.963E-10	1.098E-08	1.226E-07
Cm-244	Cm-244	1.350E-06	3.021E-06	2.908E-06	2.694E-06	2.063E-06	9.621E-07	6.664E-08	3.279E-11	7.268E-23
Cm-244	Cm-244	4.950E-08	1.108E-07	1.066E-07	9.879E-08	7.564E-08	3.528E-08	2.443E-09	1.202E-12	2.665E-24
Cm-244	ΣDOSE(j)		3.132E-06	3.014E-06	2.793E-06	2.139E-06	9.974E-07	6.908E-08	3.399E-11	7.534E-23
Pu-240	Cm-244	4.950E-08	3.356E-11	9.933E-11	2.236E-10	5.900E-10	1.224E-09	1.709E-09	1.653E-09	1.287E-09
Pu-240	Pu-240	4.950E-08	6.448E-07	6.446E-07	6.442E-07	6.429E-07	6.390E-07	6.258E-07	5.923E-07	4.610E-07
Pu-240	ΣDOSE(j)		6.448E-07	6.447E-07	6.444E-07	6.435E-07	6.403E-07	6.276E-07	5.940E-07	4.623E-07
Cm-244	Cm-244	1.000E+00	2.238E+00	2.154E+00	1.996E+00	1.528E+00	7.127E-01	4.936E-02	2.429E-05	5.384E-17
Pu-240	Cm-244	1.000E+00	6.779E-04	2.007E-03	4.516E-03	1.192E-02	2.472E-02	3.452E-02	3.340E-02	2.600E-02
U-236	Cm-244	1.000E+00	1.070E-12	2.824E-12	1.945E-11	2.131E-10	1.476E-09	8.726E-09	3.077E-08	8.540E-08
U-236	Pu-240	1.000E+00	2.171E-08	6.374E-08	1.516E-07	4.523E-07	1.305E-06	4.208E-06	1.209E-05	3.142E-05
U-236	ΣDOSE(j)		2.171E-08	6.375E-08	1.516E-07	4.525E-07	1.306E-06	4.216E-06	1.212E-05	3.151E-05
Th-232	Cm-244	1.000E+00	3.577E-18	4.438E-18	3.094E-18	3.195E-18	4.480E-18	3.353E-17	3.677E-16	3.850E-15
Th-232	Pu-240	1.000E+00	4.091E-16	7.028E-16	3.231E-16	4.760E-16	1.657E-15	1.776E-14	1.560E-13	1.457E-12
Th-232	ΣDOSE(j)		4.127E-16	7.073E-16	3.262E-16	4.792E-16	1.661E-15	1.779E-14	1.563E-13	1.461E-12
Ra-228	Cm-244	1.000E+00	3.865E-20	9.729E-20	2.539E-20	8.069E-20	1.938E-18	7.136E-17	1.424E-15	1.757E-14
Ra-228	Pu-240	1.000E+00	1.219E-16	1.619E-16	1.084E-16	2.692E-16	2.746E-15	4.363E-14	6.114E-13	6.654E-12
Ra-228	ΣDOSE(j)		1.219E-16	1.620E-16	1.085E-16	2.693E-16	2.747E-15	4.370E-14	6.128E-13	6.672E-12
Th-228	Cm-244	1.000E+00	1.373E-18	1.616E-18	1.244E-18	1.251E-18	1.430E-18	8.675E-18	4.870E-16	8.051E-15
Th-228	Pu-240	1.000E+00	2.553E-22	4.561E-21	6.325E-20	1.979E-18	4.127E-17	3.634E-15	2.081E-13	3.049E-12
Th-228	ΣDOSE(j)		1.373E-18	1.621E-18	1.308E-18	3.231E-18	4.270E-17	3.642E-15	2.086E-13	3.057E-12
Co-58	Co-58	1.000E+00	5.464E-02	1.529E-03	1.197E-06	1.608E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	Co-60	1.000E+00	1.415E+00	1.240E+00	9.526E-01	3.785E-01	2.708E-02	2.655E-06	3.159E-17	0.000E+00
Cs-134	Cs-134	1.000E+00	2.088E+00	1.493E+00	7.633E-01	7.295E-02	8.903E-05	5.640E-15	0.000E+00	0.000E+00
Cs-137	Cs-137	1.000E+00	1.658E+00	1.621E+00	1.550E+00	1.326E+00	8.472E-01	1.764E-01	2.890E-03	2.859E-10
Eu-152	Eu-152	7.208E-01	2.950E-02	2.800E-02	2.522E-02	1.749E-02	6.147E-03	1.616E-04	1.924E-07	3.938E-23
Eu-152	Eu-152	2.792E-01	1.143E-02	1.085E-02	9.768E-03	6.774E-03	2.381E-03	6.260E-05	7.453E-08	1.526E-23
Eu-152	ΣDOSE(j)		4.093E-02	3.885E-02	3.499E-02	2.426E-02	8.528E-03	2.242E-04	2.669E-07	5.464E-23
Gd-152	Eu-152	2.792E-01	1.419E-16	3.941E-16	8.573E-16	2.148E-15	4.063E-15	5.172E-15	6.058E-15	6.005E-15
Eu-154	Eu-154	1.000E+00	5.952E-02	5.500E-02	4.695E-02	2.699E-02	5.554E-03	2.232E-05	9.531E-11	0.000E+00
Eu-155	Eu-155	1.000E+00	9.250E-03	8.041E-03	6.076E-03	2.279E-03	1.384E-04	7.630E-09	1.679E-20	0.000E+00
Fe-55	Fe-55	1.000E+00	1.457E-03	1.127E-03	6.746E-04	1.118E-04	6.590E-07	1.034E-14	0.000E+00	0.000E+00

Summary : RESRAD Default Parameters

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## Individual Nuclide Dose Summed Over All Pathways

Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	DOSE(j,t), mrem/yr							
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
H-3	H-3	1.000E+00	1.442E-01	1.216E-01	8.631E-02	2.602E-02	8.457E-04	5.237E-09	0.000E+00	0.000E+00
Ni-59	Ni-59	1.000E+00	2.102E-02	2.100E-02	2.096E-02	2.083E-02	2.045E-02	1.918E-02	1.648E-02	6.121E-03
Ni-63	Ni-63	1.000E+00	5.754E-02	5.707E-02	5.616E-02	5.306E-02	4.510E-02	2.553E-02	5.186E-03	1.237E-05
Pu-238	Pu-238	1.840E-09	2.158E-08	2.141E-08	2.106E-08	1.990E-08	1.693E-08	9.608E-09	1.913E-09	6.360E-12
Pu-238	Pu-238	1.000E+00	1.173E+01	1.163E+01	1.145E+01	1.082E+01	9.201E+00	5.222E+00	1.040E+00	3.457E-03
Pu-238	ΣDOSE(j)		1.173E+01	1.163E+01	1.145E+01	1.082E+01	9.201E+00	5.222E+00	1.040E+00	3.457E-03
U-234	Pu-238	1.000E+00	2.157E-06	6.466E-06	1.498E-05	4.368E-05	1.169E-04	2.939E-04	4.696E-04	4.048E-04
Th-230	Pu-238	1.000E+00	2.450E-12	1.500E-11	7.647E-11	6.624E-10	5.276E-09	4.802E-08	2.884E-07	1.178E-06
Ra-226	Pu-238	1.000E+00	2.145E-13	1.582E-13	6.453E-13	1.223E-11	2.937E-10	9.883E-09	3.139E-07	5.576E-06
Pb-210	Pu-238	1.000E+00	2.430E-11	1.645E-11	2.345E-11	2.351E-11	2.054E-10	1.429E-08	4.620E-07	8.360E-06
Po-210	Pu-238	1.000E+00	5.318E-12	2.995E-12	4.603E-12	4.989E-12	9.800E-11	8.038E-09	2.523E-07	4.581E-06
Pu-240	Pu-240	1.000E+00	1.303E+01	1.302E+01	1.301E+01	1.299E+01	1.291E+01	1.264E+01	1.197E+01	9.313E+00
Pu-241	Pu-241	1.000E+00	2.457E-01	2.341E-01	2.126E-01	1.516E-01	5.765E-02	1.957E-03	1.247E-07	2.432E-22
Pu-241	Pu-241	2.450E-05	6.300E-06	6.002E-06	5.449E-06	3.885E-06	1.478E-06	5.018E-08	4.262E-12	1.193E-26
Pu-241	ΣDOSE(j)		2.457E-01	2.341E-01	2.126E-01	1.516E-01	5.765E-02	1.957E-03	1.247E-07	2.432E-22
Sb-125	Sb-125	7.720E-01	2.038E-01	1.575E-01	9.410E-02	1.550E-02	8.968E-05	1.321E-12	0.000E+00	0.000E+00
Sb-125	Sb-125	2.280E-01	6.019E-02	4.652E-02	2.779E-02	4.578E-03	2.649E-05	3.902E-13	0.000E+00	0.000E+00
Sb-125	ΣDOSE(j)		2.640E-01	2.041E-01	1.219E-01	2.008E-02	1.162E-04	1.711E-12	0.000E+00	0.000E+00
Te-125m	Sb-125	2.280E-01	4.216E-02	4.423E-02	2.659E-02	4.411E-03	2.601E-05	4.082E-13	0.000E+00	0.000E+00
Sr-90	Sr-90	1.000E+00	2.822E+01	2.742E+01	2.587E+01	2.112E+01	1.182E+01	1.549E+00	4.642E-03	4.701E-12
Tc-99	Tc-99	1.000E+00	4.630E+00	4.094E+00	3.197E+00	1.345E+00	1.134E-01	1.974E-05	3.566E-16	0.000E+00

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

Summary : RESRAD Default Parameters

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Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	S(j,t), pCi/g							
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	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	9.948E-01	9.826E-01	9.488E-01	8.393E-01	5.913E-01	1.735E-01
Am-241	Pu-241	1.000E+00	0.000E+00	1.564E-03	4.466E-03	1.259E-02	2.457E-02	2.859E-02	2.033E-02	5.966E-03
Am-241	ΣS(j):		1.000E+00	9.998E-01	9.992E-01	9.952E-01	9.734E-01	8.679E-01	6.116E-01	1.795E-01
Np-237	Am-241	1.000E+00	0.000E+00	3.225E-07	9.592E-07	3.103E-06	8.546E-06	2.127E-05	2.934E-05	1.090E-05
Np-237	Np-237	1.000E+00	1.000E+00	9.931E-01	9.796E-01	9.336E-01	8.136E-01	5.028E-01	1.271E-01	1.032E-03
Np-237	Pu-241	1.000E+00	0.000E+00	2.548E-10	2.209E-09	2.159E-08	1.384E-07	5.987E-07	9.748E-07	3.746E-07
Np-237	Pu-241	2.450E-05	0.000E+00	7.720E-12	2.193E-11	6.063E-11	1.108E-10	9.460E-11	2.429E-11	1.973E-13
Np-237	ΣS(j):		1.000E+00	9.931E-01	9.796E-01	9.336E-01	8.136E-01	5.028E-01	1.271E-01	1.044E-03
U-233	Am-241	1.000E+00	0.000E+00	7.061E-13	6.317E-12	6.874E-11	5.831E-10	5.298E-09	2.815E-08	7.436E-08
U-233	Np-237	1.000E+00	0.000E+00	4.357E-06	1.298E-05	4.218E-05	1.179E-04	3.099E-04	5.166E-04	4.654E-04
U-233	Pu-241	1.000E+00	0.000E+00	3.732E-16	9.795E-15	3.293E-13	6.869E-12	1.224E-10	8.512E-10	2.449E-09
U-233	Pu-241	2.450E-05	0.000E+00	1.703E-17	1.478E-16	1.450E-15	9.392E-15	4.259E-14	8.315E-14	7.688E-14
U-233	ΣS(j):		0.000E+00	4.357E-06	1.298E-05	4.218E-05	1.179E-04	3.099E-04	5.166E-04	4.655E-04
Th-229	Am-241	1.000E+00	0.000E+00	2.224E-17	5.978E-16	2.179E-14	5.624E-13	1.787E-11	3.222E-10	3.907E-09
Th-229	Np-237	1.000E+00	0.000E+00	2.060E-10	1.845E-09	2.015E-08	1.728E-07	1.633E-06	9.798E-06	4.098E-05
Th-229	Pu-241	1.000E+00	0.000E+00	8.836E-21	6.996E-19	7.989E-17	5.251E-15	3.543E-13	9.044E-12	1.251E-10
Th-229	Pu-241	2.450E-05	0.000E+00	5.387E-22	1.415E-20	4.770E-19	1.004E-17	1.853E-16	1.449E-15	6.591E-15
Th-229	ΣS(j):		0.000E+00	2.060E-10	1.845E-09	2.015E-08	1.728E-07	1.633E-06	9.798E-06	4.099E-05
C-14	C-14	1.000E+00	1.000E+00	9.747E-01	9.260E-01	7.740E-01	4.637E-01	7.718E-02	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	2.491E-12	2.096E-39	0.000E+00	0.000E+00
Cm-243	Cm-243	2.400E-03	2.400E-03	2.342E-03	2.231E-03	1.881E-03	1.155E-03	2.094E-04	1.594E-06	6.131E-14
Cm-243	Cm-243	9.976E-01	9.976E-01	9.736E-01	9.272E-01	7.817E-01	4.799E-01	8.703E-02	6.625E-04	2.548E-11
Cm-243	ΣS(j):		1.000E+00	9.759E-01	9.294E-01	7.836E-01	4.811E-01	8.724E-02	6.640E-04	2.555E-11
Am-243	Cm-243	2.400E-03	0.000E+00	2.227E-07	6.520E-07	1.999E-06	4.785E-06	8.359E-06	8.921E-06	8.130E-06
Pu-239	Cm-243	2.400E-03	0.000E+00	3.220E-12	2.851E-11	2.993E-10	2.312E-09	1.639E-08	6.524E-08	2.091E-07
Pu-239	Cm-243	9.976E-01	0.000E+00	2.838E-05	8.309E-05	2.546E-04	6.084E-04	1.055E-03	1.094E-03	8.976E-04
Pu-239	Pu-239	1.000E+00	1.000E+00	9.997E-01	9.991E-01	9.972E-01	9.915E-01	9.720E-01	9.184E-01	7.531E-01
Pu-239	ΣS(j):		1.000E+00	9.997E-01	9.992E-01	9.974E-01	9.921E-01	9.731E-01	9.195E-01	7.540E-01
U-235	Cm-243	2.400E-03	0.000E+00	1.059E-21	2.824E-20	1.002E-18	2.405E-17	6.247E-16	8.405E-15	9.419E-14
U-235	Cm-243	9.976E-01	0.000E+00	1.403E-14	1.242E-13	1.304E-12	1.005E-11	7.081E-11	2.759E-10	8.166E-10
U-235	Pu-239	1.000E+00	0.000E+00	9.845E-10	2.952E-09	9.817E-09	2.926E-08	9.536E-08	2.682E-07	7.137E-07
U-235	ΣS(j):		0.000E+00	9.846E-10	2.952E-09	9.818E-09	2.927E-08	9.543E-08	2.685E-07	7.145E-07
Pa-231	Cm-243	2.400E-03	0.000E+00	5.609E-27	4.498E-25	5.363E-23	3.950E-21	3.638E-19	1.612E-17	6.599E-16
Pa-231	Cm-243	9.976E-01	0.000E+00	9.917E-20	2.644E-18	9.381E-17	2.252E-15	5.851E-14	7.876E-13	8.843E-12
Pa-231	Pu-239	1.000E+00	0.000E+00	1.042E-14	9.370E-14	1.039E-12	9.305E-12	1.015E-10	8.683E-10	8.069E-09
Pa-231	ΣS(j):		0.000E+00	1.042E-14	9.370E-14	1.039E-12	9.307E-12	1.016E-10	8.691E-10	8.078E-09
Ac-227	Cm-243	2.400E-03	0.000E+00	3.555E-29	8.477E-27	3.267E-24	6.626E-22	1.554E-19	1.170E-17	6.023E-16
Ac-227	Cm-243	9.976E-01	0.000E+00	7.852E-22	6.218E-20	7.097E-18	4.634E-16	2.943E-14	6.268E-13	8.334E-12

Summary : RESRAD Default Parameters

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Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	S(j,t), pCi/g							
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Ac-227	Pu-239	1.000E+00	0.000E+00	1.097E-16	2.913E-15	1.021E-13	2.374E-12	5.715E-11	7.092E-10	7.624E-09
Ac-227	ΣS(j):		0.000E+00	1.097E-16	2.914E-15	1.021E-13	2.375E-12	5.718E-11	7.098E-10	7.632E-09
Cm-244	Cm-244	1.350E-06	1.350E-06	1.299E-06	1.203E-06	9.200E-07	4.273E-07	2.918E-08	1.363E-11	3.005E-23
Cm-244	Cm-244	4.950E-08	4.950E-08	4.764E-08	4.412E-08	3.373E-08	1.567E-08	1.070E-09	4.999E-13	1.102E-24
Cm-244	ΣS(j):		1.399E-06	1.347E-06	1.247E-06	9.538E-07	4.430E-07	3.025E-08	1.413E-11	3.115E-23
Pu-240	Cm-244	4.950E-08	0.000E+00	5.148E-12	1.487E-11	4.351E-11	9.296E-11	1.303E-10	1.240E-10	9.633E-11
Pu-240	Pu-240	4.950E-08	4.950E-08	4.948E-08	4.945E-08	4.932E-08	4.897E-08	4.775E-08	4.442E-08	3.451E-08
Pu-240	ΣS(j):		4.950E-08	4.949E-08	4.946E-08	4.937E-08	4.906E-08	4.788E-08	4.455E-08	3.460E-08
Cm-244	Cm-244	1.000E+00	1.000E+00	9.624E-01	8.913E-01	6.815E-01	3.165E-01	2.161E-02	1.010E-05	2.226E-17
Pu-240	Cm-244	1.000E+00	0.000E+00	1.040E-04	3.003E-04	8.790E-04	1.878E-03	2.632E-03	2.505E-03	1.946E-03
U-236	Cm-244	1.000E+00	0.000E+00	1.549E-12	1.359E-11	1.383E-10	9.889E-10	5.919E-09	2.030E-08	5.608E-08
U-236	Pu-240	1.000E+00	0.000E+00	2.959E-08	8.871E-08	2.950E-07	8.785E-07	2.855E-06	7.969E-06	2.063E-05
U-236	ΣS(j):		0.000E+00	2.959E-08	8.873E-08	2.951E-07	8.795E-07	2.861E-06	7.990E-06	2.069E-05
Th-232	Cm-244	1.000E+00	0.000E+00	2.556E-23	6.769E-22	2.347E-20	5.317E-19	1.208E-17	1.423E-16	1.492E-15
Th-232	Pu-240	1.000E+00	0.000E+00	7.300E-19	6.567E-18	7.283E-17	6.521E-16	7.115E-15	6.081E-14	5.647E-13
Th-232	ΣS(j):		0.000E+00	7.301E-19	6.567E-18	7.286E-17	6.526E-16	7.127E-15	6.095E-14	5.662E-13
Ra-228	Cm-244	1.000E+00	0.000E+00	7.535E-25	5.734E-23	5.750E-21	2.780E-19	9.915E-18	1.342E-16	1.469E-15
Ra-228	Pu-240	1.000E+00	0.000E+00	2.847E-20	7.250E-19	2.222E-17	3.889E-16	6.043E-15	5.765E-14	5.565E-13
Ra-228	ΣS(j):		0.000E+00	2.847E-20	7.251E-19	2.223E-17	3.892E-16	6.053E-15	5.778E-14	5.580E-13
Th-228	Cm-244	1.000E+00	0.000E+00	5.173E-26	1.066E-23	2.621E-21	2.088E-19	9.223E-18	1.316E-16	1.462E-15
Th-228	Pu-240	1.000E+00	0.000E+00	2.417E-21	1.633E-19	1.164E-17	3.119E-16	5.696E-15	5.660E-14	5.537E-13
Th-228	ΣS(j):		0.000E+00	2.417E-21	1.634E-19	1.164E-17	3.121E-16	5.705E-15	5.673E-14	5.552E-13
Co-58	Co-58	1.000E+00	1.000E+00	2.796E-02	2.186E-05	2.921E-16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	Co-60	1.000E+00	1.000E+00	8.758E-01	6.719E-01	2.656E-01	1.874E-02	1.748E-06	5.342E-18	0.000E+00
Cs-134	Cs-134	1.000E+00	1.000E+00	7.143E-01	3.645E-01	3.460E-02	4.140E-05	2.456E-15	1.541E-44	0.000E+00
Cs-137	Cs-137	1.000E+00	1.000E+00	9.769E-01	9.323E-01	7.917E-01	4.962E-01	9.675E-02	9.056E-04	7.185E-11
Eu-152	Eu-152	7.208E-01	7.208E-01	6.840E-01	6.159E-01	4.267E-01	1.496E-01	3.813E-03	1.067E-07	1.237E-23
Eu-152	Eu-152	2.792E-01	2.792E-01	2.649E-01	2.386E-01	1.653E-01	5.794E-02	1.477E-03	4.133E-08	4.793E-24
Eu-152	ΣS(j):		1.000E+00	9.489E-01	8.545E-01	5.920E-01	2.075E-01	5.290E-03	1.480E-07	1.717E-23
Gd-152	Eu-152	2.792E-01	0.000E+00	1.746E-15	4.974E-15	1.394E-14	2.707E-14	3.387E-14	3.373E-14	3.261E-14
Eu-154	Eu-154	1.000E+00	1.000E+00	9.239E-01	7.885E-01	4.530E-01	9.296E-02	3.639E-04	4.818E-11	4.070E-35
Eu-155	Eu-155	1.000E+00	1.000E+00	8.692E-01	6.567E-01	2.462E-01	1.492E-02	8.177E-07	5.468E-19	0.000E+00
Fe-55	Fe-55	1.000E+00	1.000E+00	7.735E-01	4.628E-01	7.665E-02	4.504E-04	7.004E-12	3.436E-34	0.000E+00



Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\FILL DSR\FCS FILL DSR.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	8.424E-01	5.977E-01	1.799E-01	5.819E-03	3.544E-08	2.803E-45	0.000E+00
Ni-59	Ni-59	1.000E+00	1.000E+00	9.986E-01	9.957E-01	9.857E-01	9.578E-01	8.662E-01	6.499E-01	2.378E-01
Ni-63	Ni-63	1.000E+00	1.000E+00	9.914E-01	9.744E-01	9.172E-01	7.715E-01	4.212E-01	7.470E-02	1.756E-04
Pu-238	Pu-238	1.840E-09	1.840E-09	1.825E-09	1.796E-09	1.696E-09	1.441E-09	8.141E-10	1.593E-10	5.287E-13
Pu-238	Pu-238	1.000E+00	1.000E+00	9.919E-01	9.758E-01	9.217E-01	7.830E-01	4.424E-01	8.660E-02	2.874E-04
Pu-238	ΣS(j):		1.000E+00	9.919E-01	9.758E-01	9.217E-01	7.830E-01	4.424E-01	8.660E-02	2.874E-04
U-234	Pu-238	1.000E+00	0.000E+00	2.823E-06	8.397E-06	2.717E-05	7.502E-05	1.899E-04	2.947E-04	2.528E-04
Th-230	Pu-238	1.000E+00	0.000E+00	1.272E-11	1.139E-10	1.240E-09	1.056E-08	9.748E-08	5.597E-07	2.273E-06
Ra-226	Pu-238	1.000E+00	0.000E+00	1.838E-15	4.942E-14	1.802E-12	4.654E-11	1.487E-09	2.769E-08	4.096E-07
Pb-210	Pu-238	1.000E+00	0.000E+00	1.420E-17	1.132E-15	1.323E-13	9.202E-12	7.095E-10	2.125E-08	3.823E-07
Po-210	Pu-238	1.000E+00	0.000E+00	3.952E-18	6.249E-16	1.079E-13	8.597E-12	6.964E-10	2.114E-08	3.818E-07
Pu-240	Pu-240	1.000E+00	1.000E+00	9.996E-01	9.989E-01	9.964E-01	9.892E-01	9.646E-01	8.974E-01	6.971E-01
Pu-241	Pu-241	1.000E+00	1.000E+00	9.527E-01	8.649E-01	6.164E-01	2.342E-01	7.915E-03	4.958E-07	9.649E-22
Pu-241	Pu-241	2.450E-05	2.450E-05	2.334E-05	2.119E-05	1.510E-05	5.737E-06	1.939E-07	1.215E-11	2.364E-26
Pu-241	ΣS(j):		1.000E+00	9.528E-01	8.649E-01	6.164E-01	2.342E-01	7.915E-03	4.958E-07	9.649E-22
Sb-125	Sb-125	7.720E-01	7.720E-01	5.967E-01	3.564E-01	5.870E-02	3.395E-04	4.991E-12	2.086E-34	0.000E+00
Sb-125	Sb-125	2.280E-01	2.280E-01	1.762E-01	1.053E-01	1.734E-02	1.003E-04	1.474E-12	6.159E-35	0.000E+00
Sb-125	ΣS(j):		1.000E+00	7.729E-01	4.617E-01	7.604E-02	4.397E-04	6.465E-12	2.702E-34	0.000E+00
Te-125m	Sb-125	2.280E-01	0.000E+00	1.841E-01	1.118E-01	1.842E-02	1.065E-04	1.566E-12	6.544E-35	0.000E+00
Sr-90	Sr-90	1.000E+00	1.000E+00	9.708E-01	9.150E-01	7.438E-01	4.115E-01	5.183E-02	1.392E-04	1.398E-13
Tc-99	Tc-99	1.000E+00	1.000E+00	8.833E-01	6.892E-01	2.892E-01	2.419E-02	4.094E-06	6.859E-17	0.000E+00

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

RESMASCALC.EXE execution time = 167.04 seconds

Total water/soil iteration failures = 6.200E+01.