

Summary : RESRAD Default Parameters

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Time = 3.000E+00	27
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Time = 3.000E+01	31
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Dose Conversion Factor (and Related) Parameter Summary

Dose Library: FCS FGR11 Plus FGR 11

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

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

Dose Library: FCS FGR11 Plus FGR 11

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

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

Dose Library: FCS FGR11 Plus FGR 11

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

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

Dose Library: FCS FGR11 Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-1	Pa-231	1.060E-02	1.060E-02	DCF3 (25)
D-1	Pb-210+D	5.376E-03	5.370E-03	DCF3 (26)
D-1	Po-210	1.900E-03	1.900E-03	DCF3 (27)
D-1	Pu-238	3.200E-03	3.200E-03	DCF3 (28)
D-1	Pu-239	3.540E-03	3.540E-03	DCF3 (30)
D-1	Pu-240	3.540E-03	3.540E-03	DCF3 (31)
D-1	Pu-241	6.840E-05	6.840E-05	DCF3 (33)
D-1	Pu-241+D	7.157E-05	6.840E-05	DCF3 (34)
D-1	Ra-226+D	1.321E-03	1.320E-03	DCF3 (35)
D-1	Ra-228+D	1.442E-03	1.440E-03	DCF3 (36)
D-1	Sb-125	2.810E-06	2.810E-06	DCF3 (37)
D-1	Sr-90+D	1.528E-04	1.420E-04	DCF3 (39)
D-1	Tc-99	1.460E-06	1.460E-06	DCF3 (40)
D-1	Te-125m	3.670E-06	3.670E-06	DCF3 (41)
D-1	Th-228+D	8.086E-04	3.960E-04	DCF3 (42)
D-1	Th-229+D	4.027E-03	3.530E-03	DCF3 (43)
D-1	Th-230	5.480E-04	5.480E-04	DCF3 (44)
D-1	Th-232	2.730E-03	2.730E-03	DCF3 (45)
D-1	U-233	2.890E-04	2.890E-04	DCF3 (46)
D-1	U-234	2.830E-04	2.830E-04	DCF3 (47)
D-1	U-235+D	2.673E-04	2.660E-04	DCF3 (48)
D-1	U-236	2.690E-04	2.690E-04	DCF3 (49)
D-34	Food transfer factors:			
D-34	Ac-227+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(1,1)
D-34	Ac-227+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF(1,2)
D-34	Ac-227+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-05	2.000E-05	RTF(1,3)
D-34				
D-34	Am-241 , plant/soil concentration ratio, dimensionless	1.830E-03	1.000E-03	RTF(2,1)
D-34	Am-241 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.740E-05	5.000E-05	RTF(2,2)
D-34	Am-241 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.260E-06	2.000E-06	RTF(2,3)
D-34				
D-34	Am-243+D , plant/soil concentration ratio, dimensionless	1.830E-03	1.000E-03	RTF(3,1)
D-34	Am-243+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.740E-05	5.000E-05	RTF(3,2)
D-34	Am-243+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.260E-06	2.000E-06	RTF(3,3)
D-34				
D-34	C-14 , plant/soil concentration ratio, dimensionless	1.280E+00	5.500E+00	RTF(4,1)
D-34	C-14 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	6.110E-02	3.100E-02	RTF(4,2)
D-34	C-14 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.250E-02	1.200E-02	RTF(4,3)
D-34				
D-34	Ce-144+D , plant/soil concentration ratio, dimensionless	3.940E-03	2.000E-03	RTF(5,1)
D-34	Ce-144+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.790E-05	2.000E-05	RTF(5,2)
D-34	Ce-144+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	4.840E-05	5.000E-05	RTF(5,3)
D-34				
D-34	Cm-243 , plant/soil concentration ratio, dimensionless	1.830E-03	1.000E-03	RTF(6,1)
D-34	Cm-243 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	4.080E-05	2.000E-05	RTF(6,2)
D-34	Cm-243 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.800E-06	2.000E-06	RTF(6,3)
D-34				

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

Dose Library: FCS FGR11 Plus FGR 11

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

Summary : RESRAD Default Parameters

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

Dose Library: FCS FGR11 Plus FGR 11

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

Summary : RESRAD Default Parameters

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

Dose Library: FCS FGR11 Plus FGR 11

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

Summary : RESRAD Default Parameters

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

Dose Library: FCS FGR11 Plus FGR 11

Menu	Parameter	Current Value#	Base Case*	Parameter Name
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Ac-227+D , fish	1.500E+01	1.500E+01	BIOFAC(1,1)
D-5	Ac-227+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(1,2)
D-5				
D-5	Am-241 , fish	3.000E+01	3.000E+01	BIOFAC(2,1)
D-5	Am-241 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(2,2)
D-5				
D-5	Am-243+D , fish	3.000E+01	3.000E+01	BIOFAC(3,1)
D-5	Am-243+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(3,2)
D-5				
D-5	C-14 , fish	5.000E+04	5.000E+04	BIOFAC(4,1)
D-5	C-14 , crustacea and mollusks	9.100E+03	9.100E+03	BIOFAC(4,2)
D-5				
D-5	Ce-144+D , fish	3.000E+01	3.000E+01	BIOFAC(5,1)
D-5	Ce-144+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(5,2)
D-5				
D-5	Cm-243 , fish	3.000E+01	3.000E+01	BIOFAC(6,1)
D-5	Cm-243 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(6,2)
D-5				
D-5	Cm-244 , fish	3.000E+01	3.000E+01	BIOFAC(8,1)
D-5	Cm-244 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(8,2)
D-5				
D-5	Co-58 , fish	3.000E+02	3.000E+02	BIOFAC(11,1)
D-5	Co-58 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC(11,2)
D-5				
D-5	Co-60 , fish	3.000E+02	3.000E+02	BIOFAC(12,1)
D-5	Co-60 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC(12,2)
D-5				
D-5	Cs-134 , fish	2.000E+03	2.000E+03	BIOFAC(13,1)
D-5	Cs-134 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC(13,2)
D-5				
D-5	Cs-137+D , fish	2.000E+03	2.000E+03	BIOFAC(14,1)
D-5	Cs-137+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC(14,2)
D-5				
D-5	Eu-152 , fish	5.000E+01	5.000E+01	BIOFAC(15,1)
D-5	Eu-152 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(15,2)
D-5				
D-5	Eu-154 , fish	5.000E+01	5.000E+01	BIOFAC(17,1)
D-5	Eu-154 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(17,2)
D-5				
D-5	Eu-155 , fish	5.000E+01	5.000E+01	BIOFAC(18,1)
D-5	Eu-155 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(18,2)
D-5				
D-5	Fe-55 , fish	2.000E+02	2.000E+02	BIOFAC(19,1)
D-5	Fe-55 , crustacea and mollusks	3.200E+03	3.200E+03	BIOFAC(19,2)
D-5				
D-5	Gd-152 , fish	2.500E+01	2.500E+01	BIOFAC(20,1)
D-5	Gd-152 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(20,2)
D-5				

Summary : RESRAD Default Parameters

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

Dose Library: FCS FGR11 Plus FGR 11

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

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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 ETFG table in Ground Pathway of Detailed Report.

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

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.670E+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)	7.000E+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)

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R012	Concentration in groundwater (pCi/L): Eu-154	not used	0.000E+00	---	W1 (17)
R012	Concentration in groundwater (pCi/L): Eu-155	not used	0.000E+00	---	W1 (18)
R012	Concentration in groundwater (pCi/L): Fe-55	not used	0.000E+00	---	W1 (19)
R012	Concentration in groundwater (pCi/L): H-3	not used	0.000E+00	---	W1 (21)
R012	Concentration in groundwater (pCi/L): Ni-59	not used	0.000E+00	---	W1 (22)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1 (23)
R012	Concentration in groundwater (pCi/L): Np-237	not used	0.000E+00	---	W1 (24)
R012	Concentration in groundwater (pCi/L): Pu-238	not used	0.000E+00	---	W1 (28)
R012	Concentration in groundwater (pCi/L): Pu-239	not used	0.000E+00	---	W1 (30)
R012	Concentration in groundwater (pCi/L): Pu-240	not used	0.000E+00	---	W1 (31)
R012	Concentration in groundwater (pCi/L): Pu-241	not used	0.000E+00	---	W1 (33)
R012	Concentration in groundwater (pCi/L): Sb-125	not used	0.000E+00	---	W1 (37)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1 (39)
R012	Concentration in groundwater (pCi/L): Tc-99	not used	0.000E+00	---	W1 (40)
R013	Cover depth (m)	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

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for 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	1.683E-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	2.901E-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	1.135E-04	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	7.917E-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	7.917E-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	1.215E-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	1.215E-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	2.862E-04	ALEACH (13)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (13)

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for 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	2.862E-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	4.780E-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	4.780E-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	4.780E-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	1.410E-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	1.313E-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	1.624E-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	1.624E-03	ALEACH (23)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (23)

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for 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	7.823E-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	2.899E-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	2.899E-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	2.899E-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	2.899E-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	8.435E-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	6.594E-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	1.412E-01	ALEACH (40)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (40)

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for daughter 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	5.464E-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	4.530E-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	5.464E-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	1.191E-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	2.066E-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	4.517E-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	1.462E-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	1.462E-05	ALEACH (36)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (36)

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for daughter 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	1.180E-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	6.480E-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	6.480E-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	6.480E-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	6.480E-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	4.108E-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	4.108E-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	4.108E-04	ALEACH (48)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (48)

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for daughter 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	4.108E-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

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R018	Contamination fraction of 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	0.835E+00	FMEAT
R018	Contamination fraction of milk	-1	-1	0.835E+00	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):				

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
STOR	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

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Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
Area:	16700.00 square meters	Am-241	1.000E+00
Thickness:	4.00 meters	C-14	1.000E+00
Cover Depth:	0.92 meters	Ce-144	1.000E+00
		Cm-243	1.000E+00
		Cm-244	1.000E+00
		Co-58	1.000E+00
		Co-60	1.000E+00
		Cs-134	1.000E+00
		Cs-137	1.000E+00
		Eu-152	1.000E+00
		Eu-154	1.000E+00
		Eu-155	1.000E+00
		Fe-55	1.000E+00
		H-3	1.000E+00
		Ni-59	1.000E+00
		Ni-63	1.000E+00
		Np-237	1.000E+00
		Pu-238	1.000E+00
		Pu-239	1.000E+00
		Pu-240	1.000E+00
		Pu-241	1.000E+00
		Sb-125	1.000E+00
		Sr-90	1.000E+00
		Tc-99	1.000E+00

Total Dose TDOSE(t), mrem/yr

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

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

t (years):	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	5.301E+02	5.241E+02	5.132E+02	4.804E+02	4.065E+02	2.420E+02	7.293E+01	2.040E+01
M(t):	2.120E+01	2.096E+01	2.053E+01	1.922E+01	1.626E+01	9.680E+00	2.917E+00	8.160E-01

Maximum TDOSE(t): 5.301E+02 mrem/yr at t = 0.000E+00 years

Summary : RESRAD Default Parameters

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

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

Water 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	6.469E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.230E-01	0.0012	3.949E-04	0.0000	1.872E-04	0.0000	0.000E+00	0.0000
C-14	1.054E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.507E-02	0.0001	1.254E-02	0.0000	1.312E-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	2.158E-06	0.0000	2.300E-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	1.914E-04	0.0000	1.488E-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	1.530E-04	0.0000	1.189E-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	8.780E-03	0.0000	3.946E-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	2.274E-01	0.0004	1.022E-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	3.305E-01	0.0006	5.762E-01	0.0011	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	2.624E-01	0.0005	4.575E-01	0.0009	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	1.104E-04	0.0000	2.569E-05	0.0000	0.000E+00	0.0000
Eu-154	3.513E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.619E-03	0.0000	1.606E-04	0.0000	3.736E-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	2.497E-05	0.0000	5.809E-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	3.989E-05	0.0000	4.041E-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	1.270E-02	0.0000	1.179E-03	0.0000	9.394E-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	1.834E-04	0.0000	5.274E-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	5.021E-04	0.0000	1.444E-02	0.0000	0.000E+00	0.0000
Np-237	3.957E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.521E+01	0.0287	2.673E-01	0.0005	2.259E-02	0.0000	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	6.872E-04	0.0000	6.996E-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	7.632E-04	0.0000	7.769E-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	7.632E-04	0.0000	7.769E-05	0.0000	0.000E+00	0.0000
Pu-241	6.823E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.193E-02	0.0000	1.474E-05	0.0000	1.613E-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	3.280E-02	0.0001	1.178E-03	0.0000	8.904E-04	0.0000	0.000E+00	0.0000
Sr-90	8.993E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.314E+00	0.0157	1.203E+00	0.0023	2.116E+00	0.0040	0.000E+00	0.0000
Tc-99	1.055E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.173E+00	0.0022	2.096E-03	0.0000	1.739E-01	0.0003	0.000E+00	0.0000
Total	2.283E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.914E+01	0.0550	2.321E+00	0.0044	3.496E+00	0.0066	0.000E+00	0.0000

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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	0.0122	0.000E+00	0.0000	0.000E+00	0.0000	9.416E-01	0.0018	3.681E-03	0.0000	1.248E-03	0.0000	8.025E+00	0.0151
C-14	6.304E-01	0.0012	0.000E+00	0.0000	0.000E+00	0.0000	3.754E-01	0.0007	3.066E-01	0.0006	2.084E-01	0.0004	1.591E+00	0.0030
Ce-144	1.674E-02	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.442E-03	0.0000	6.300E-06	0.0000	4.804E-05	0.0000	2.441E-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	8.395E-04	0.0000	4.667E-04	0.0000	2.800E+00	0.0053
Cm-244	1.656E+00	0.0031	0.000E+00	0.0000	0.000E+00	0.0000	2.415E-01	0.0005	6.713E-04	0.0000	3.731E-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	7.420E-03	0.0000	2.388E-03	0.0000	5.019E-02	0.0001
Co-60	3.228E-01	0.0006	0.000E+00	0.0000	0.000E+00	0.0000	4.862E-02	0.0001	1.922E-01	0.0004	6.182E-02	0.0001	1.299E+00	0.0025
Cs-134	1.879E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	2.789E-02	0.0001	1.226E-01	0.0002	1.529E-01	0.0003	1.854E+00	0.0035
Cs-137	1.492E-01	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	2.214E-02	0.0000	9.734E-02	0.0002	1.214E-01	0.0002	1.472E+00	0.0028
Eu-152	3.183E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	4.645E-03	0.0000	1.271E-03	0.0000	2.114E-04	0.0000	4.061E-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	1.849E-03	0.0000	3.075E-04	0.0000	5.906E-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	2.874E-04	0.0000	4.781E-05	0.0000	9.177E-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	3.117E-04	0.0000	2.258E-05	0.0000	1.382E-03	0.0000
H-3	8.088E-02	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	9.876E-03	0.0000	4.209E-03	0.0000	1.836E-02	0.0000	1.366E-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	3.311E-04	0.0000	6.813E-03	0.0000	1.852E-02	0.0000
Ni-63	9.841E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.465E-03	0.0000	9.065E-04	0.0000	1.865E-02	0.0000	5.072E-02	0.0001
Np-237	3.653E+02	0.6891	0.000E+00	0.0000	0.000E+00	0.0000	5.371E+01	0.1013	5.776E+00	0.0109	3.492E-01	0.0007	4.406E+02	0.8312
Pu-238	9.746E+00	0.0184	0.000E+00	0.0000	0.000E+00	0.0000	1.422E+00	0.0027	1.104E-02	0.0000	8.035E-04	0.0000	1.173E+01	0.0221
Pu-239	1.082E+01	0.0204	0.000E+00	0.0000	0.000E+00	0.0000	1.579E+00	0.0030	1.226E-02	0.0000	8.923E-04	0.0000	1.302E+01	0.0246
Pu-240	1.082E+01	0.0204	0.000E+00	0.0000	0.000E+00	0.0000	1.579E+00	0.0030	1.226E-02	0.0000	8.923E-04	0.0000	1.302E+01	0.0246
Pu-241	2.093E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.054E-02	0.0001	2.350E-04	0.0000	1.791E-05	0.0000	2.521E-01	0.0005
Sb-125	2.281E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.400E-02	0.0001	5.153E-03	0.0000	2.040E-03	0.0000	3.042E-01	0.0006
Sr-90	1.047E+01	0.0197	0.000E+00	0.0000	0.000E+00	0.0000	1.730E+00	0.0033	1.374E+00	0.0026	1.734E+00	0.0033	2.694E+01	0.0508
Tc-99	2.028E+00	0.0038	0.000E+00	0.0000	0.000E+00	0.0000	9.030E-01	0.0017	3.661E-03	0.0000	2.275E-01	0.0004	4.512E+00	0.0085
Total	4.213E+02	0.7948	0.000E+00	0.0000	0.000E+00	0.0000	6.297E+01	0.1188	7.935E+00	0.0150	2.909E+00	0.0055	5.301E+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+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	2.023E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.228E-01	0.0012	3.948E-04	0.0000	1.871E-04	0.0000	0.000E+00	0.0000
C-14	1.165E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.384E-02	0.0001	1.220E-02	0.0000	1.276E-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	8.866E-07	0.0000	9.452E-06	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	1.870E-04	0.0000	1.454E-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	1.475E-04	0.0000	1.146E-04	0.0000	0.000E+00	0.0000
Co-58	8.585E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.726E-04	0.0000	2.459E-04	0.0000	1.105E-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	3.019E-01	0.0006	1.994E-01	0.0004	8.962E-02	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	2.364E-01	0.0005	4.121E-01	0.0008	0.000E+00	0.0000
Cs-137	3.191E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.543E-01	0.0007	2.567E-01	0.0005	4.475E-01	0.0009	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	1.049E-04	0.0000	2.441E-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	3.347E-03	0.0000	1.486E-04	0.0000	3.456E-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	2.173E-05	0.0000	5.055E-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	3.090E-05	0.0000	3.129E-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	1.055E-02	0.0000	9.823E-04	0.0000	7.819E-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	1.833E-04	0.0000	5.273E-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	4.873E-03	0.0000	4.984E-04	0.0000	1.433E-02	0.0000	0.000E+00	0.0000
Np-237	4.135E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.511E+01	0.0288	2.656E-01	0.0005	2.244E-02	0.0000	0.000E+00	0.0000
Pu-238	4.483E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.422E-01	0.0010	6.825E-04	0.0000	6.949E-05	0.0000	0.000E+00	0.0000
Pu-239	1.013E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.070E-01	0.0012	7.640E-04	0.0000	7.777E-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	0.0012	7.639E-04	0.0000	7.776E-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	1.468E-05	0.0000	1.832E-06	0.0000	0.000E+00	0.0000
Sb-125	1.060E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.329E-02	0.0001	1.358E-03	0.0000	9.845E-04	0.0000	0.000E+00	0.0000
Sr-90	9.187E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.076E+00	0.0154	1.169E+00	0.0022	2.056E+00	0.0039	0.000E+00	0.0000
Tc-99	1.005E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.021E+00	0.0019	1.830E-03	0.0000	1.516E-01	0.0003	0.000E+00	0.0000
Total	2.063E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.843E+01	0.0542	2.148E+00	0.0041	3.221E+00	0.0061	0.000E+00	0.0000

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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	0.0123	0.000E+00	0.0000	0.000E+00	0.0000	9.399E-01	0.0018	3.677E-03	0.0000	1.246E-03	0.0000	8.012E+00	0.0153
C-14	6.123E-01	0.0012	0.000E+00	0.0000	0.000E+00	0.0000	3.647E-01	0.0007	2.979E-01	0.0006	2.024E-01	0.0004	1.546E+00	0.0029
Ce-144	6.868E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.002E-03	0.0000	2.586E-06	0.0000	1.972E-05	0.0000	1.002E-02	0.0000
Cm-243	2.022E+00	0.0039	0.000E+00	0.0000	0.000E+00	0.0000	2.949E-01	0.0006	8.196E-04	0.0000	4.555E-04	0.0000	2.733E+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	6.473E-04	0.0000	3.591E-04	0.0000	2.156E+00	0.0041
Co-58	3.487E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.256E-05	0.0000	2.075E-04	0.0000	6.679E-05	0.0000	1.405E-03	0.0000
Co-60	2.827E-01	0.0005	0.000E+00	0.0000	0.000E+00	0.0000	4.258E-02	0.0001	1.683E-01	0.0003	5.414E-02	0.0001	1.139E+00	0.0022
Cs-134	1.343E-01	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	1.992E-02	0.0000	8.757E-02	0.0002	1.092E-01	0.0002	1.326E+00	0.0025
Cs-137	1.458E-01	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	2.163E-02	0.0000	9.509E-02	0.0002	1.186E-01	0.0002	1.440E+00	0.0027
Eu-152	3.020E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	4.408E-03	0.0000	1.206E-03	0.0000	2.006E-04	0.0000	3.854E-02	0.0001
Eu-154	4.277E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	6.241E-03	0.0000	1.708E-03	0.0000	2.841E-04	0.0000	5.456E-02	0.0001
Eu-155	6.256E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.130E-04	0.0000	2.498E-04	0.0000	4.156E-05	0.0000	7.977E-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	2.411E-04	0.0000	1.746E-05	0.0000	1.069E-03	0.0000
H-3	6.706E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	8.194E-03	0.0000	3.495E-03	0.0000	1.523E-02	0.0000	1.133E-01	0.0002
Ni-59	3.589E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.341E-04	0.0000	3.306E-04	0.0000	6.802E-03	0.0000	1.850E-02	0.0000
Ni-63	9.755E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.452E-03	0.0000	8.985E-04	0.0000	1.849E-02	0.0000	5.030E-02	0.0001
Np-237	3.625E+02	0.6916	0.000E+00	0.0000	0.000E+00	0.0000	5.329E+01	0.1017	5.732E+00	0.0109	3.465E-01	0.0007	4.372E+02	0.8342
Pu-238	9.667E+00	0.0184	0.000E+00	0.0000	0.000E+00	0.0000	1.410E+00	0.0027	1.095E-02	0.0000	7.971E-04	0.0000	1.163E+01	0.0222
Pu-239	1.082E+01	0.0206	0.000E+00	0.0000	0.000E+00	0.0000	1.578E+00	0.0030	1.225E-02	0.0000	8.920E-04	0.0000	1.302E+01	0.0248
Pu-240	1.082E+01	0.0206	0.000E+00	0.0000	0.000E+00	0.0000	1.578E+00	0.0030	1.225E-02	0.0000	8.919E-04	0.0000	1.302E+01	0.0248
Pu-241	2.095E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.058E-02	0.0001	2.298E-04	0.0000	1.903E-05	0.0000	2.527E-01	0.0005
Sb-125	1.781E-01	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	2.665E-02	0.0001	4.201E-03	0.0000	1.686E-03	0.0000	2.463E-01	0.0005
Sr-90	1.016E+01	0.0194	0.000E+00	0.0000	0.000E+00	0.0000	1.679E+00	0.0032	1.333E+00	0.0025	1.682E+00	0.0032	2.615E+01	0.0499
Tc-99	1.761E+00	0.0034	0.000E+00	0.0000	0.000E+00	0.0000	7.847E-01	0.0015	3.187E-03	0.0000	1.979E-01	0.0004	3.922E+00	0.0075
Total	4.175E+02	0.7965	0.000E+00	0.0000	0.000E+00	0.0000	6.232E+01	0.1189	7.770E+00	0.0148	2.759E+00	0.0053	5.241E+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\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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	5.177E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.222E-01	0.0012	3.946E-04	0.0000	1.870E-04	0.0000	0.000E+00	0.0000
C-14	1.422E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.147E-02	0.0001	1.154E-02	0.0000	1.207E-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	3.578E-04	0.0000	1.497E-07	0.0000	1.596E-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	1.786E-04	0.0000	1.389E-04	0.0000	0.000E+00	0.0000
Cm-244	8.849E-22	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.040E-01	0.0006	1.371E-04	0.0000	1.064E-04	0.0000	0.000E+00	0.0000
Co-58	7.260E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.920E-07	0.0000	1.927E-07	0.0000	8.657E-08	0.0000	0.000E+00	0.0000
Co-60	1.088E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.322E-01	0.0005	1.533E-01	0.0003	6.892E-02	0.0001	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	1.209E-01	0.0002	2.108E-01	0.0004	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	2.456E-01	0.0005	4.282E-01	0.0008	0.000E+00	0.0000
Eu-152	2.701E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.134E-03	0.0000	9.473E-05	0.0000	2.203E-05	0.0000	0.000E+00	0.0000
Eu-154	3.089E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.864E-03	0.0000	1.271E-04	0.0000	2.957E-05	0.0000	0.000E+00	0.0000
Eu-155	2.229E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.709E-04	0.0000	1.646E-05	0.0000	3.829E-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	1.853E-05	0.0000	1.877E-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	7.272E-03	0.0000	6.770E-04	0.0000	5.389E-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	1.832E-04	0.0000	5.270E-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	4.801E-03	0.0000	4.909E-04	0.0000	1.412E-02	0.0000	0.000E+00	0.0000
Np-237	4.514E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.492E+01	0.0291	2.622E-01	0.0005	2.216E-02	0.0000	0.000E+00	0.0000
Pu-238	6.367E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.349E-01	0.0010	6.732E-04	0.0000	6.857E-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	6.082E-01	0.0012	7.656E-04	0.0000	7.793E-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	7.654E-04	0.0000	7.791E-05	0.0000	0.000E+00	0.0000
Pu-241	7.316E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.315E-02	0.0000	1.457E-05	0.0000	2.240E-06	0.0000	0.000E+00	0.0000
Sb-125	6.887E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.998E-02	0.0000	8.185E-04	0.0000	5.924E-04	0.0000	0.000E+00	0.0000
Sr-90	9.586E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.620E+00	0.0148	1.103E+00	0.0021	1.940E+00	0.0038	0.000E+00	0.0000
Tc-99	9.119E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.720E-01	0.0015	1.383E-03	0.0000	1.146E-01	0.0002	0.000E+00	0.0000
Total	1.749E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.722E+01	0.0530	1.903E+00	0.0037	2.823E+00	0.0055	0.000E+00	0.0000

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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	6.421E+00	0.0125	0.000E+00	0.0000	0.000E+00	0.0000	9.366E-01	0.0018	3.667E-03	0.0000	1.242E-03	0.0000	7.986E+00	0.0156
C-14	5.776E-01	0.0011	0.000E+00	0.0000	0.000E+00	0.0000	3.440E-01	0.0007	2.810E-01	0.0005	1.910E-01	0.0004	1.459E+00	0.0028
Ce-144	1.157E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.688E-04	0.0000	4.355E-07	0.0000	3.321E-06	0.0000	1.689E-03	0.0000
Cm-243	1.926E+00	0.0038	0.000E+00	0.0000	0.000E+00	0.0000	2.809E-01	0.0005	7.812E-04	0.0000	4.339E-04	0.0000	2.605E+00	0.0051
Cm-244	1.479E+00	0.0029	0.000E+00	0.0000	0.000E+00	0.0000	2.157E-01	0.0004	6.020E-04	0.0000	3.328E-04	0.0000	2.000E+00	0.0039
Co-58	2.726E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.108E-08	0.0000	1.622E-07	0.0000	5.220E-08	0.0000	1.099E-06	0.0000
Co-60	2.168E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.265E-02	0.0001	1.290E-01	0.0003	4.152E-02	0.0001	8.745E-01	0.0017
Cs-134	6.850E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	1.016E-02	0.0000	4.468E-02	0.0001	5.574E-02	0.0001	6.778E-01	0.0013
Cs-137	1.391E-01	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	2.064E-02	0.0000	9.075E-02	0.0002	1.132E-01	0.0002	1.377E+00	0.0027
Eu-152	2.719E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	3.969E-03	0.0000	1.086E-03	0.0000	1.806E-04	0.0000	3.471E-02	0.0001
Eu-154	3.650E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	5.327E-03	0.0000	1.458E-03	0.0000	2.424E-04	0.0000	4.658E-02	0.0001
Eu-155	4.726E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.897E-04	0.0000	1.887E-04	0.0000	3.139E-05	0.0000	6.027E-03	0.0000
Fe-55	3.685E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.375E-05	0.0000	1.442E-04	0.0000	1.045E-05	0.0000	6.400E-04	0.0000
H-3	4.609E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	5.632E-03	0.0000	2.402E-03	0.0000	1.047E-02	0.0000	7.793E-02	0.0002
Ni-59	3.577E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.323E-04	0.0000	3.295E-04	0.0000	6.780E-03	0.0000	1.846E-02	0.0000
Ni-63	9.584E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.426E-03	0.0000	8.827E-04	0.0000	1.816E-02	0.0000	4.947E-02	0.0001
Np-237	3.568E+02	0.6954	0.000E+00	0.0000	0.000E+00	0.0000	5.246E+01	0.1022	5.643E+00	0.0110	3.411E-01	0.0007	4.305E+02	0.8389
Pu-238	9.510E+00	0.0185	0.000E+00	0.0000	0.000E+00	0.0000	1.387E+00	0.0027	1.077E-02	0.0000	7.844E-04	0.0000	1.144E+01	0.0223
Pu-239	1.081E+01	0.0211	0.000E+00	0.0000	0.000E+00	0.0000	1.577E+00	0.0031	1.225E-02	0.0000	8.915E-04	0.0000	1.301E+01	0.0254
Pu-240	1.081E+01	0.0211	0.000E+00	0.0000	0.000E+00	0.0000	1.577E+00	0.0031	1.224E-02	0.0000	8.912E-04	0.0000	1.301E+01	0.0254
Pu-241	2.098E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.062E-02	0.0001	2.198E-04	0.0000	2.107E-05	0.0000	2.539E-01	0.0005
Sb-125	1.062E-01	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	1.589E-02	0.0000	2.506E-03	0.0000	1.005E-03	0.0000	1.470E-01	0.0003
Sr-90	9.556E+00	0.0186	0.000E+00	0.0000	0.000E+00	0.0000	1.580E+00	0.0031	1.255E+00	0.0024	1.583E+00	0.0031	2.464E+01	0.0480
Tc-99	1.328E+00	0.0026	0.000E+00	0.0000	0.000E+00	0.0000	5.917E-01	0.0012	2.403E-03	0.0000	1.493E-01	0.0003	2.959E+00	0.0058
Total	4.101E+02	0.7992	0.000E+00	0.0000	0.000E+00	0.0000	6.108E+01	0.1190	7.495E+00	0.0146	2.516E+00	0.0049	5.132E+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\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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	2.155E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.204E-01	0.0013	3.940E-04	0.0000	1.865E-04	0.0000	0.000E+00	0.0000
C-14	2.856E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.414E-02	0.0001	9.504E-03	0.0000	9.940E-03	0.0000	0.000E+00	0.0000
Ce-144	2.659E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.083E-07	0.0000	2.964E-10	0.0000	3.160E-09	0.0000	0.000E+00	0.0000
Cm-243	3.050E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.375E-01	0.0007	1.522E-04	0.0000	1.182E-04	0.0000	0.000E+00	0.0000
Cm-244	4.547E-21	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.350E-01	0.0005	1.063E-04	0.0000	8.220E-05	0.0000	0.000E+00	0.0000
Co-58	1.277E-21	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.935E-18	0.0000	2.596E-18	0.0000	1.166E-18	0.0000	0.000E+00	0.0000
Co-60	5.456E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.255E-02	0.0002	6.112E-02	0.0001	2.747E-02	0.0001	0.000E+00	0.0000
Cs-134	5.106E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.599E-02	0.0000	1.158E-02	0.0000	2.019E-02	0.0000	0.000E+00	0.0000
Cs-137	3.759E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.906E-01	0.0006	2.105E-01	0.0004	3.669E-01	0.0008	0.000E+00	0.0000
Eu-152	2.420E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.492E-03	0.0000	6.623E-05	0.0000	1.540E-05	0.0000	0.000E+00	0.0000
Eu-154	2.288E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.660E-03	0.0000	7.370E-05	0.0000	1.714E-05	0.0000	0.000E+00	0.0000
Eu-155	1.500E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.403E-04	0.0000	6.227E-06	0.0000	1.448E-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	7.123E-06	0.0000	3.099E-06	0.0000	3.138E-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	1.976E-03	0.0000	1.840E-04	0.0000	1.464E-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	1.788E-03	0.0000	1.829E-04	0.0000	5.259E-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	4.555E-03	0.0000	4.658E-04	0.0000	1.340E-02	0.0000	0.000E+00	0.0000
Np-237	6.136E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.426E+01	0.0297	2.505E-01	0.0005	2.117E-02	0.0000	0.000E+00	0.0000
Pu-238	4.979E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.098E-01	0.0011	6.417E-04	0.0000	6.543E-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	6.126E-01	0.0013	7.711E-04	0.0000	7.849E-05	0.0000	0.000E+00	0.0000
Pu-240	4.958E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.121E-01	0.0013	7.704E-04	0.0000	7.843E-05	0.0000	0.000E+00	0.0000
Pu-241	9.654E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.540E-02	0.0000	1.425E-05	0.0000	3.397E-06	0.0000	0.000E+00	0.0000
Sb-125	1.521E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.299E-03	0.0000	1.351E-04	0.0000	9.780E-05	0.0000	0.000E+00	0.0000
Sr-90	1.113E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.218E+00	0.0129	9.002E-01	0.0019	1.583E+00	0.0033	0.000E+00	0.0000
Tc-99	6.483E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.901E-01	0.0006	5.198E-04	0.0000	4.308E-02	0.0001	0.000E+00	0.0000
Total	1.061E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.415E+01	0.0503	1.448E+00	0.0030	2.092E+00	0.0044	0.000E+00	0.0000

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+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	6.343E+00	0.0132	0.000E+00	0.0000	0.000E+00	0.0000	9.252E-01	0.0019	3.634E-03	0.0000	1.227E-03	0.0000	7.894E+00	0.0164
C-14	4.711E-01	0.0010	0.000E+00	0.0000	0.000E+00	0.0000	2.806E-01	0.0006	2.292E-01	0.0005	1.557E-01	0.0003	1.190E+00	0.0025
Ce-144	2.268E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.310E-07	0.0000	8.539E-10	0.0000	6.511E-09	0.0000	3.319E-06	0.0000
Cm-243	1.626E+00	0.0034	0.000E+00	0.0000	0.000E+00	0.0000	2.371E-01	0.0005	6.608E-04	0.0000	3.659E-04	0.0000	2.201E+00	0.0046
Cm-244	1.138E+00	0.0024	0.000E+00	0.0000	0.000E+00	0.0000	1.660E-01	0.0003	4.682E-04	0.0000	2.550E-04	0.0000	1.540E+00	0.0032
Co-58	3.638E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.483E-19	0.0000	2.164E-18	0.0000	6.968E-19	0.0000	1.475E-17	0.0000
Co-60	8.562E-02	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	1.290E-02	0.0000	5.097E-02	0.0001	1.640E-02	0.0000	3.471E-01	0.0007
Cs-134	6.500E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.645E-04	0.0000	4.240E-03	0.0000	5.289E-03	0.0000	6.476E-02	0.0001
Cs-137	1.181E-01	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	1.752E-02	0.0000	7.704E-02	0.0002	9.610E-02	0.0002	1.177E+00	0.0024
Eu-152	1.883E-02	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.749E-03	0.0000	7.521E-04	0.0000	1.251E-04	0.0000	2.406E-02	0.0001
Eu-154	2.096E-02	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.059E-03	0.0000	8.370E-04	0.0000	1.392E-04	0.0000	2.677E-02	0.0001
Eu-155	1.771E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.585E-04	0.0000	7.072E-05	0.0000	1.176E-05	0.0000	2.260E-03	0.0000
Fe-55	6.104E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.903E-06	0.0000	2.389E-05	0.0000	1.730E-06	0.0000	1.061E-04	0.0000
H-3	1.241E-02	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.516E-03	0.0000	6.467E-04	0.0000	2.819E-03	0.0000	2.102E-02	0.0000
Ni-59	3.536E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.263E-04	0.0000	3.257E-04	0.0000	6.703E-03	0.0000	1.832E-02	0.0000
Ni-63	9.008E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.341E-03	0.0000	8.297E-04	0.0000	1.707E-02	0.0000	4.667E-02	0.0001
Np-237	3.378E+02	0.7032	0.000E+00	0.0000	0.000E+00	0.0000	4.967E+01	0.1034	5.342E+00	0.0111	3.230E-01	0.0007	4.077E+02	0.8486
Pu-238	8.980E+00	0.0187	0.000E+00	0.0000	0.000E+00	0.0000	1.310E+00	0.0027	1.017E-02	0.0000	7.415E-04	0.0000	1.081E+01	0.0225
Pu-239	1.079E+01	0.0225	0.000E+00	0.0000	0.000E+00	0.0000	1.574E+00	0.0033	1.222E-02	0.0000	8.895E-04	0.0000	1.299E+01	0.0270
Pu-240	1.078E+01	0.0224	0.000E+00	0.0000	0.000E+00	0.0000	1.573E+00	0.0033	1.221E-02	0.0000	8.888E-04	0.0000	1.298E+01	0.0270
Pu-241	2.103E-01	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.068E-02	0.0001	1.914E-04	0.0000	2.677E-05	0.0000	2.566E-01	0.0005
Sb-125	1.737E-02	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.598E-03	0.0000	4.098E-04	0.0000	1.644E-04	0.0000	2.407E-02	0.0001
Sr-90	7.725E+00	0.0161	0.000E+00	0.0000	0.000E+00	0.0000	1.277E+00	0.0027	1.014E+00	0.0021	1.280E+00	0.0027	2.000E+01	0.0416
Tc-99	4.944E-01	0.0010	0.000E+00	0.0000	0.000E+00	0.0000	2.203E-01	0.0005	8.947E-04	0.0000	5.557E-02	0.0001	1.105E+00	0.0023
Total	3.867E+02	0.8049	0.000E+00	0.0000	0.000E+00	0.0000	5.730E+01	0.1193	6.762E+00	0.0141	1.963E+00	0.0041	4.804E+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\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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	1.601E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.148E-01	0.0015	3.919E-04	0.0000	1.849E-04	0.0000	0.000E+00	0.0000
C-14	2.095E-22	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.957E-02	0.0000	5.449E-03	0.0000	5.699E-03	0.0000	0.000E+00	0.0000
Ce-144	9.758E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.336E-14	0.0000	5.590E-18	0.0000	5.960E-17	0.0000	0.000E+00	0.0000
Cm-243	6.110E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.130E-01	0.0005	9.625E-05	0.0000	7.451E-05	0.0000	0.000E+00	0.0000
Cm-244	6.381E-20	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.130E-01	0.0003	5.186E-05	0.0000	3.931E-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	7.601E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.684E-03	0.0000	4.414E-03	0.0000	1.984E-03	0.0000	0.000E+00	0.0000
Cs-134	1.379E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.963E-05	0.0000	1.422E-05	0.0000	2.480E-05	0.0000	0.000E+00	0.0000
Cs-137	5.412E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.869E-01	0.0005	1.353E-01	0.0003	2.360E-01	0.0006	0.000E+00	0.0000
Eu-152	1.768E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.363E-04	0.0000	2.380E-05	0.0000	5.537E-06	0.0000	0.000E+00	0.0000
Eu-154	9.703E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.494E-04	0.0000	1.551E-05	0.0000	3.607E-06	0.0000	0.000E+00	0.0000
Eu-155	4.840E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.720E-06	0.0000	3.870E-07	0.0000	9.002E-08	0.0000	0.000E+00	0.0000
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.296E-08	0.0000	1.869E-08	0.0000	1.893E-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	4.775E-05	0.0000	4.446E-06	0.0000	3.539E-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	1.777E-03	0.0000	1.817E-04	0.0000	5.226E-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	3.918E-03	0.0000	4.007E-04	0.0000	1.152E-02	0.0000	0.000E+00	0.0000
Np-237	1.475E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.252E+01	0.0308	2.200E-01	0.0005	1.859E-02	0.0000	0.000E+00	0.0000
Pu-238	1.890E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.443E-01	0.0011	5.593E-04	0.0000	5.722E-05	0.0000	0.000E+00	0.0000
Pu-239	5.579E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.249E-01	0.0015	7.866E-04	0.0000	8.007E-05	0.0000	0.000E+00	0.0000
Pu-240	3.362E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.235E-01	0.0015	7.847E-04	0.0000	7.989E-05	0.0000	0.000E+00	0.0000
Pu-241	3.767E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.882E-02	0.0000	1.372E-05	0.0000	5.179E-06	0.0000	0.000E+00	0.0000
Sb-125	2.033E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.919E-05	0.0000	7.859E-07	0.0000	5.688E-07	0.0000	0.000E+00	0.0000
Sr-90	1.703E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.476E+00	0.0085	5.032E-01	0.0012	8.848E-01	0.0022	0.000E+00	0.0000
Tc-99	2.446E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.770E-02	0.0000	3.171E-05	0.0000	2.628E-03	0.0000	0.000E+00	0.0000
Total	4.056E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.888E+01	0.0464	8.717E-01	0.0021	1.167E+00	0.0029	0.000E+00	0.0000

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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	6.124E+00	0.0151	0.000E+00	0.0000	0.000E+00	0.0000	8.933E-01	0.0022	3.539E-03	0.0000	1.186E-03	0.0000	7.637E+00	0.0188
C-14	2.631E-01	0.0006	0.000E+00	0.0000	0.000E+00	0.0000	1.567E-01	0.0004	1.280E-01	0.0003	8.697E-02	0.0002	6.655E-01	0.0016
Ce-144	4.167E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.081E-15	0.0000	1.569E-17	0.0000	1.196E-16	0.0000	6.132E-14	0.0000
Cm-243	1.003E+00	0.0025	0.000E+00	0.0000	0.000E+00	0.0000	1.463E-01	0.0004	4.112E-04	0.0000	2.250E-04	0.0000	1.363E+00	0.0034
Cm-244	5.443E-01	0.0013	0.000E+00	0.0000	0.000E+00	0.0000	7.939E-02	0.0002	2.354E-04	0.0000	1.197E-04	0.0000	7.371E-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	6.023E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.072E-04	0.0000	3.585E-03	0.0000	1.153E-03	0.0000	2.476E-02	0.0001
Cs-134	7.774E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.154E-06	0.0000	5.071E-06	0.0000	6.326E-06	0.0000	7.898E-05	0.0000
Cs-137	7.397E-02	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	1.098E-02	0.0000	4.825E-02	0.0001	6.019E-02	0.0001	7.516E-01	0.0018
Eu-152	6.594E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.623E-04	0.0000	2.633E-04	0.0000	4.380E-05	0.0000	8.446E-03	0.0000
Eu-154	4.296E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.269E-04	0.0000	1.716E-04	0.0000	2.854E-05	0.0000	5.501E-03	0.0000
Eu-155	1.072E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.565E-05	0.0000	4.281E-06	0.0000	7.122E-07	0.0000	1.370E-04	0.0000
Fe-55	3.585E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.229E-08	0.0000	1.403E-07	0.0000	1.016E-08	0.0000	6.248E-07	0.0000
H-3	2.921E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.569E-05	0.0000	1.522E-05	0.0000	6.635E-05	0.0000	4.969E-04	0.0000
Ni-59	3.423E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.094E-04	0.0000	3.153E-04	0.0000	6.487E-03	0.0000	1.792E-02	0.0000
Ni-63	7.548E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.123E-03	0.0000	6.952E-04	0.0000	1.431E-02	0.0000	3.951E-02	0.0001
Np-237	2.889E+02	0.7106	0.000E+00	0.0000	0.000E+00	0.0000	4.247E+01	0.1045	4.568E+00	0.0112	2.762E-01	0.0007	3.490E+02	0.8583
Pu-238	7.623E+00	0.0188	0.000E+00	0.0000	0.000E+00	0.0000	1.112E+00	0.0027	8.633E-03	0.0000	6.317E-04	0.0000	9.189E+00	0.0226
Pu-239	1.072E+01	0.0264	0.000E+00	0.0000	0.000E+00	0.0000	1.564E+00	0.0038	1.214E-02	0.0000	8.838E-04	0.0000	1.292E+01	0.0318
Pu-240	1.070E+01	0.0263	0.000E+00	0.0000	0.000E+00	0.0000	1.560E+00	0.0038	1.211E-02	0.0000	8.818E-04	0.0000	1.289E+01	0.0317
Pu-241	2.075E-01	0.0005	0.000E+00	0.0000	0.000E+00	0.0000	3.027E-02	0.0001	1.462E-04	0.0000	3.489E-05	0.0000	2.568E-01	0.0006
Sb-125	9.840E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.472E-05	0.0000	2.322E-06	0.0000	9.316E-07	0.0000	1.369E-04	0.0000
Sr-90	4.206E+00	0.0103	0.000E+00	0.0000	0.000E+00	0.0000	6.952E-01	0.0017	5.522E-01	0.0014	6.967E-01	0.0017	1.101E+01	0.0271
Tc-99	2.938E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	1.309E-02	0.0000	5.316E-05	0.0000	3.302E-03	0.0000	6.618E-02	0.0002
Total	3.304E+02	0.8127	0.000E+00	0.0000	0.000E+00	0.0000	4.874E+01	0.1199	5.339E+00	0.0131	1.149E+00	0.0028	4.065E+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\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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 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	1.424E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.927E-01	0.0024	3.816E-04	0.0000	1.785E-04	0.0000	0.000E+00	0.0000
C-14	2.241E-19	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.779E-03	0.0000	7.737E-04	0.0000	8.092E-04	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	6.948E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.276E-02	0.0002	1.985E-05	0.0000	1.482E-05	0.0000	0.000E+00	0.0000
Cm-244	7.047E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.013E-02	0.0000	6.023E-06	0.0000	3.146E-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	7.670E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.732E-07	0.0000	4.446E-07	0.0000	1.998E-07	0.0000	0.000E+00	0.0000
Cs-134	1.412E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.267E-15	0.0000	9.179E-16	0.0000	1.600E-15	0.0000	0.000E+00	0.0000
Cs-137	1.937E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.964E-02	0.0002	2.871E-02	0.0001	5.006E-02	0.0002	0.000E+00	0.0000
Eu-152	5.898E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.485E-05	0.0000	6.593E-07	0.0000	1.534E-07	0.0000	0.000E+00	0.0000
Eu-154	4.820E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.486E-06	0.0000	6.596E-08	0.0000	1.534E-08	0.0000	0.000E+00	0.0000
Eu-155	9.229E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.192E-10	0.0000	2.305E-11	0.0000	5.360E-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	7.278E-16	0.0000	3.166E-16	0.0000	3.207E-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	1.042E-10	0.0000	9.704E-12	0.0000	7.724E-11	0.0000	0.000E+00	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.729E-03	0.0000	1.768E-04	0.0000	5.085E-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	2.302E-03	0.0000	2.354E-04	0.0000	6.769E-03	0.0000	0.000E+00	0.0000
Np-237	3.179E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.896E+00	0.0326	1.388E-01	0.0006	1.173E-02	0.0000	0.000E+00	0.0000
Pu-238	5.790E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.732E-01	0.0011	3.440E-04	0.0000	3.580E-05	0.0000	0.000E+00	0.0000
Pu-239	3.424E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.667E-01	0.0028	8.392E-04	0.0000	8.542E-05	0.0000	0.000E+00	0.0000
Pu-240	2.582E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.615E-01	0.0027	8.327E-04	0.0000	8.477E-05	0.0000	0.000E+00	0.0000
Pu-241	4.078E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.029E-02	0.0001	1.309E-05	0.0000	6.091E-06	0.0000	0.000E+00	0.0000
Sb-125	5.616E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.865E-13	0.0000	1.173E-14	0.0000	8.494E-15	0.0000	0.000E+00	0.0000
Sr-90	7.559E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.516E-01	0.0019	6.538E-02	0.0003	1.150E-01	0.0005	0.000E+00	0.0000
Tc-99	8.069E-20	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.875E-07	0.0000	1.769E-09	0.0000	1.466E-07	0.0000	0.000E+00	0.0000
Total	2.902E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.066E+01	0.0441	2.365E-01	0.0010	1.898E-01	0.0008	0.000E+00	0.0000

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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	5.414E+00	0.0224	0.000E+00	0.0000	0.000E+00	0.0000	7.897E-01	0.0033	3.201E-03	0.0000	1.052E-03	0.0000	6.802E+00	0.0281
C-14	3.424E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	2.039E-02	0.0001	1.666E-02	0.0001	1.132E-02	0.0000	8.697E-02	0.0004
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	1.919E-01	0.0008	0.000E+00	0.0000	0.000E+00	0.0000	2.799E-02	0.0001	8.607E-05	0.0000	4.162E-05	0.0000	2.628E-01	0.0011
Cm-244	6.416E-02	0.0003	0.000E+00	0.0000	0.000E+00	0.0000	9.359E-03	0.0000	4.667E-05	0.0000	1.040E-05	0.0000	8.372E-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	5.561E-07	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.376E-08	0.0000	3.310E-07	0.0000	1.065E-07	0.0000	2.403E-06	0.0000
Cs-134	4.599E-16	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.824E-17	0.0000	3.000E-16	0.0000	3.742E-16	0.0000	4.989E-15	0.0000
Cs-137	1.439E-02	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	2.135E-03	0.0000	9.385E-03	0.0000	1.171E-02	0.0000	1.561E-01	0.0006
Eu-152	1.674E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.443E-05	0.0000	6.685E-06	0.0000	1.112E-06	0.0000	2.212E-04	0.0000
Eu-154	1.675E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.444E-06	0.0000	6.688E-07	0.0000	1.113E-07	0.0000	2.202E-05	0.0000
Eu-155	5.852E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.540E-10	0.0000	2.337E-10	0.0000	3.887E-11	0.0000	7.526E-09	0.0000
Fe-55	5.568E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.122E-16	0.0000	2.179E-15	0.0000	1.579E-16	0.0000	9.794E-15	0.0000
H-3	5.844E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.141E-11	0.0000	3.045E-11	0.0000	1.327E-10	0.0000	1.010E-09	0.0000
Ni-59	3.053E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.543E-04	0.0000	2.812E-04	0.0000	5.787E-03	0.0000	1.657E-02	0.0001
Ni-63	4.064E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.048E-04	0.0000	3.743E-04	0.0000	7.703E-03	0.0000	2.205E-02	0.0001
Np-237	1.671E+02	0.6904	0.000E+00	0.0000	0.000E+00	0.0000	2.456E+01	0.1015	2.642E+00	0.0109	1.597E-01	0.0007	2.025E+02	0.8367
Pu-238	4.297E+00	0.0178	0.000E+00	0.0000	0.000E+00	0.0000	6.268E-01	0.0026	4.867E-03	0.0000	3.625E-04	0.0000	5.203E+00	0.0215
Pu-239	1.048E+01	0.0433	0.000E+00	0.0000	0.000E+00	0.0000	1.529E+00	0.0063	1.187E-02	0.0000	8.643E-04	0.0000	1.269E+01	0.0525
Pu-240	1.040E+01	0.0430	0.000E+00	0.0000	0.000E+00	0.0000	1.517E+00	0.0063	1.178E-02	0.0000	8.578E-04	0.0000	1.260E+01	0.0521
Pu-241	1.860E-01	0.0008	0.000E+00	0.0000	0.000E+00	0.0000	2.713E-02	0.0001	1.102E-04	0.0000	3.594E-05	0.0000	2.336E-01	0.0010
Sb-125	1.347E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.015E-13	0.0000	3.178E-14	0.0000	1.275E-14	0.0000	1.900E-12	0.0000
Sr-90	5.009E-01	0.0021	0.000E+00	0.0000	0.000E+00	0.0000	8.280E-02	0.0003	6.576E-02	0.0003	8.298E-02	0.0003	1.364E+00	0.0056
Tc-99	1.503E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.695E-07	0.0000	2.719E-09	0.0000	1.689E-07	0.0000	3.480E-06	0.0000
Total	1.987E+02	0.8209	0.000E+00	0.0000	0.000E+00	0.0000	2.920E+01	0.1207	2.766E+00	0.0114	2.824E-01	0.0012	2.420E+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 = 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	1.417E-03	0.0000	2.298E-03	0.0000	0.000E+00	0.0000	5.157E-01	0.0071	4.145E-03	0.0001	9.297E-04	0.0000	2.487E-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	7.359E-05	0.0000	5.901E-06	0.0000	0.000E+00	0.0000	1.328E-03	0.0000	1.703E-05	0.0000	1.556E-06	0.0000	6.410E-05	0.0000
Cm-244	1.307E-08	0.0000	9.399E-06	0.0000	0.000E+00	0.0000	2.121E-03	0.0000	3.371E-05	0.0000	1.637E-06	0.0000	1.024E-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	2.112E-17	0.0000	9.238E-24	0.0000	0.000E+00	0.0000	2.473E-18	0.0000	1.872E-18	0.0000	7.803E-19	0.0000	1.498E-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	7.409E-04	0.0000	2.490E-10	0.0000	0.000E+00	0.0000	4.562E-04	0.0000	4.205E-04	0.0000	6.436E-04	0.0000	5.153E-07	0.0000
Eu-152	2.561E-07	0.0000	2.762E-13	0.0000	0.000E+00	0.0000	5.090E-10	0.0000	1.370E-10	0.0000	1.668E-11	0.0000	1.069E-11	0.0000
Eu-154	9.070E-11	0.0000	1.147E-16	0.0000	0.000E+00	0.0000	2.409E-13	0.0000	6.486E-14	0.0000	7.895E-15	0.0000	5.057E-15	0.0000
Eu-155	1.127E-20	0.0000	1.829E-25	0.0000	0.000E+00	0.0000	4.251E-22	0.0000	1.144E-22	0.0000	1.393E-23	0.0000	8.923E-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	1.457E-08	0.0000	0.000E+00	0.0000	1.544E-03	0.0000	1.948E-04	0.0000	4.997E-03	0.0001	1.496E-06	0.0000
Ni-63	0.000E+00	0.0000	3.887E-09	0.0000	0.000E+00	0.0000	4.859E-04	0.0000	6.130E-05	0.0000	1.572E-03	0.0000	4.706E-07	0.0000
Np-237	2.150E-02	0.0003	4.542E-04	0.0000	0.000E+00	0.0000	2.045E+00	0.0280	5.681E-02	0.0008	3.805E-03	0.0001	4.928E-03	0.0001
Pu-238	6.264E-07	0.0000	2.952E-04	0.0000	0.000E+00	0.0000	6.585E-02	0.0009	1.049E-03	0.0000	5.761E-05	0.0000	3.178E-03	0.0000
Pu-239	4.396E-05	0.0000	3.436E-03	0.0000	0.000E+00	0.0000	7.753E-01	0.0106	1.234E-02	0.0002	5.960E-04	0.0000	3.742E-02	0.0005
Pu-240	4.679E-06	0.0000	3.357E-03	0.0000	0.000E+00	0.0000	7.576E-01	0.0104	1.206E-02	0.0002	5.825E-04	0.0000	3.656E-02	0.0005
Pu-241	4.872E-05	0.0000	7.899E-05	0.0000	0.000E+00	0.0000	1.773E-02	0.0002	1.425E-04	0.0000	3.196E-05	0.0000	8.548E-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	5.444E-07	0.0000	1.244E-09	0.0000	0.000E+00	0.0000	1.280E-03	0.0000	1.920E-04	0.0000	3.309E-04	0.0000	1.918E-07	0.0000
Tc-99	4.717E-24	0.0000	2.781E-26	0.0000	0.000E+00	0.0000	6.711E-19	0.0000	1.205E-21	0.0000	9.976E-20	0.0000	6.441E-24	0.0000
Total	2.383E-02	0.0003	9.934E-03	0.0001	0.000E+00	0.0000	4.184E+00	0.0574	8.747E-02	0.0012	1.355E-02	0.0002	1.080E-01	0.0015

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 = 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	3.803E+00	0.0521	0.000E+00	0.0000	0.000E+00	0.0000	5.547E-01	0.0076	2.315E-03	0.0000	7.426E-04	0.0000	4.910E+00	0.0673
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	1.312E-02	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	1.913E-03	0.0000	1.385E-05	0.0000	1.279E-06	0.0000	1.654E-02	0.0002
Cm-244	2.687E-02	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	3.919E-03	0.0001	3.041E-05	0.0000	2.218E-06	0.0000	3.309E-02	0.0005
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	1.650E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.485E-19	0.0000	9.822E-19	0.0000	3.160E-19	0.0000	2.944E-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	1.337E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.984E-05	0.0000	8.724E-05	0.0000	1.088E-04	0.0000	2.611E-03	0.0000
Eu-152	4.631E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.759E-10	0.0000	1.849E-10	0.0000	3.076E-11	0.0000	2.623E-07	0.0000
Eu-154	2.192E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.199E-13	0.0000	8.754E-14	0.0000	1.456E-14	0.0000	9.364E-11	0.0000
Eu-155	3.868E-21	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.645E-22	0.0000	1.545E-22	0.0000	2.569E-23	0.0000	1.644E-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	2.202E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.277E-04	0.0000	2.029E-04	0.0000	4.174E-03	0.0001	1.364E-02	0.0002
Ni-63	6.930E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.031E-04	0.0000	6.383E-05	0.0000	1.314E-03	0.0000	4.294E-03	0.0001
Np-237	3.494E+01	0.4791	0.000E+00	0.0000	0.000E+00	0.0000	5.138E+00	0.0704	5.526E-01	0.0076	3.343E-02	0.0005	4.280E+01	0.5869
Pu-238	8.355E-01	0.0115	0.000E+00	0.0000	0.000E+00	0.0000	1.219E-01	0.0017	9.470E-04	0.0000	8.155E-05	0.0000	1.029E+00	0.0141
Pu-239	9.837E+00	0.1349	0.000E+00	0.0000	0.000E+00	0.0000	1.435E+00	0.0197	1.114E-02	0.0002	8.110E-04	0.0000	1.211E+01	0.1661
Pu-240	9.612E+00	0.1318	0.000E+00	0.0000	0.000E+00	0.0000	1.402E+00	0.0192	1.088E-02	0.0001	7.927E-04	0.0000	1.184E+01	0.1623
Pu-241	1.307E-01	0.0018	0.000E+00	0.0000	0.000E+00	0.0000	1.907E-02	0.0003	7.944E-05	0.0000	2.552E-05	0.0000	1.688E-01	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	1.147E-03	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.896E-04	0.0000	1.506E-04	0.0000	1.900E-04	0.0000	3.481E-03	0.0000
Tc-99	8.248E-19	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.675E-19	0.0000	1.493E-21	0.0000	9.270E-20	0.0000	2.059E-18	0.0000
Total	5.921E+01	0.8118	0.000E+00	0.0000	0.000E+00	0.0000	8.677E+00	0.1190	5.785E-01	0.0079	4.167E-02	0.0006	7.293E+01	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+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	3.508E-03	0.0002	8.155E-04	0.0000	0.000E+00	0.0000	1.513E-01	0.0074	1.452E-03	0.0001	3.205E-04	0.0000	8.825E-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	3.481E-06	0.0000	4.064E-06	0.0000	0.000E+00	0.0000	7.581E-04	0.0000	1.434E-05	0.0000	6.932E-07	0.0000	4.426E-05	0.0000
Cm-244	1.317E-07	0.0000	8.721E-06	0.0000	0.000E+00	0.0000	1.627E-03	0.0001	3.092E-05	0.0000	1.470E-06	0.0000	9.499E-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	1.068E-10	0.0000	2.366E-17	0.0000	0.000E+00	0.0000	3.583E-11	0.0000	3.452E-11	0.0000	5.165E-11	0.0000	4.896E-14	0.0000
Eu-152	5.075E-23	0.0000	8.504E-17	0.0000	0.000E+00	0.0000	1.740E-15	0.0000	4.351E-16	0.0000	1.741E-17	0.0000	7.438E-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	5.698E-09	0.0000	0.000E+00	0.0000	4.992E-04	0.0000	6.550E-05	0.0000	1.646E-03	0.0001	5.850E-07	0.0000
Ni-63	0.000E+00	0.0000	9.766E-12	0.0000	0.000E+00	0.0000	1.009E-06	0.0000	1.324E-07	0.0000	3.328E-06	0.0000	1.183E-09	0.0000
Np-237	2.286E-04	0.0000	3.735E-06	0.0000	0.000E+00	0.0000	8.733E-03	0.0004	2.619E-04	0.0000	2.816E-05	0.0000	2.895E-05	0.0000
Pu-238	2.125E-06	0.0000	1.523E-06	0.0000	0.000E+00	0.0000	2.448E-04	0.0000	5.357E-06	0.0000	7.562E-06	0.0000	1.366E-05	0.0000
Pu-239	9.989E-05	0.0000	3.373E-03	0.0002	0.000E+00	0.0000	6.292E-01	0.0308	1.196E-02	0.0006	5.681E-04	0.0000	3.673E-02	0.0018
Pu-240	4.713E-05	0.0000	3.122E-03	0.0002	0.000E+00	0.0000	5.824E-01	0.0285	1.107E-02	0.0005	5.264E-04	0.0000	3.400E-02	0.0017
Pu-241	1.206E-04	0.0000	2.803E-05	0.0000	0.000E+00	0.0000	5.202E-03	0.0003	4.993E-05	0.0000	1.102E-05	0.0000	3.034E-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	6.982E-16	0.0000	8.770E-19	0.0000	0.000E+00	0.0000	7.456E-13	0.0000	1.127E-13	0.0000	1.934E-13	0.0000	1.352E-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	4.010E-03	0.0002	7.356E-03	0.0004	0.000E+00	0.0000	1.380E+00	0.0676	2.491E-02	0.0012	3.114E-03	0.0002	8.005E-02	0.0039

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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	1.101E+00	0.0540	0.000E+00	0.0000	0.000E+00	0.0000	1.605E-01	0.0079	6.782E-04	0.0000	2.153E-04	0.0000	1.428E+00	0.0700
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	9.407E-03	0.0005	0.000E+00	0.0000	0.000E+00	0.0000	1.372E-03	0.0001	1.064E-05	0.0000	7.771E-07	0.0000	1.162E-02	0.0006
Cm-244	2.035E-02	0.0010	0.000E+00	0.0000	0.000E+00	0.0000	2.968E-03	0.0001	2.305E-05	0.0000	1.680E-06	0.0000	2.511E-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	1.036E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.537E-12	0.0000	6.755E-12	0.0000	8.427E-12	0.0000	2.559E-10	0.0000
Eu-152	3.003E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.381E-16	0.0000	5.966E-17	0.0000	3.562E-18	0.0000	5.856E-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	7.021E-04	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.045E-04	0.0000	6.467E-05	0.0000	1.331E-03	0.0001	4.413E-03	0.0002
Ni-63	1.419E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.112E-07	0.0000	1.307E-07	0.0000	2.690E-06	0.0000	8.922E-06	0.0000
Np-237	1.468E-01	0.0072	0.000E+00	0.0000	0.000E+00	0.0000	2.158E-02	0.0011	2.314E-03	0.0001	1.572E-04	0.0000	1.801E-01	0.0088
Pu-238	3.008E-03	0.0001	0.000E+00	0.0000	0.000E+00	0.0000	4.388E-04	0.0000	4.242E-06	0.0000	1.088E-05	0.0000	3.737E-03	0.0002
Pu-239	7.870E+00	0.3858	0.000E+00	0.0000	0.000E+00	0.0000	1.148E+00	0.0563	8.912E-03	0.0004	6.488E-04	0.0000	9.710E+00	0.4760
Pu-240	7.285E+00	0.3571	0.000E+00	0.0000	0.000E+00	0.0000	1.063E+00	0.0521	8.250E-03	0.0004	6.014E-04	0.0000	8.988E+00	0.4406
Pu-241	3.783E-02	0.0019	0.000E+00	0.0000	0.000E+00	0.0000	5.519E-03	0.0003	2.331E-05	0.0000	7.402E-06	0.0000	4.910E-02	0.0024
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	6.588E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.089E-13	0.0000	8.649E-14	0.0000	1.091E-13	0.0000	2.016E-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	1.647E+01	0.8076	0.000E+00	0.0000	0.000E+00	0.0000	2.403E+00	0.1178	2.028E-02	0.0010	2.977E-03	0.0001	2.040E+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\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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	8.025E+00	8.012E+00	7.985E+00	7.893E+00	7.634E+00	6.793E+00	4.898E+00	1.424E+00
Am-241	Np-237+D	1.000E+00	7.053E-05	2.123E-04	4.921E-04	1.430E-03	3.785E-03	9.071E-03	1.182E-02	4.079E-03
Am-241	U-233	1.000E+00	5.365E-13	3.076E-12	1.464E-11	1.210E-10	9.380E-10	8.132E-09	4.211E-08	1.032E-07
Am-241	Th-229+D	1.000E+00	1.181E-15	1.563E-15	3.921E-15	9.021E-14	2.087E-12	6.350E-11	1.255E-09	1.564E-08
Am-241	ΣDSR(j)		8.025E+00	8.012E+00	7.986E+00	7.894E+00	7.637E+00	6.802E+00	4.910E+00	1.428E+00
C-14	C-14	1.000E+00	1.591E+00	1.546E+00	1.459E+00	1.190E+00	6.655E-01	8.697E-02	0.000E+00	0.000E+00
Ce-144+D	Ce-144+D	1.000E+00	2.441E-02	1.002E-02	1.689E-03	3.319E-06	6.132E-14	5.265E-41	0.000E+00	0.000E+00
Cm-243	Cm-243	2.400E-03	6.719E-03	6.558E-03	6.249E-03	5.275E-03	3.251E-03	5.976E-04	4.954E-06	1.999E-13
Cm-243	Am-243+D	2.400E-03	2.928E-07	8.666E-07	1.973E-06	5.457E-06	1.273E-05	2.250E-05	2.730E-05	2.711E-05
Cm-243	Pu-239	2.400E-03	1.488E-11	9.780E-11	5.067E-10	4.284E-09	3.105E-08	2.160E-07	8.664E-07	2.740E-06
Cm-243	U-235+D	2.400E-03	1.310E-19	2.215E-20	2.148E-19	1.670E-18	3.615E-17	9.137E-16	1.364E-14	1.694E-13
Cm-243	Pa-231	2.400E-03	4.359E-20	1.329E-19	1.698E-18	6.202E-19	2.415E-19	5.054E-18	4.847E-16	2.129E-14
Cm-243	Ac-227+D	2.400E-03	1.414E-18	6.732E-18	1.020E-17	4.462E-18	4.923E-18	4.058E-18	1.854E-16	9.418E-15
Cm-243	ΣDSR(j)		6.719E-03	6.559E-03	6.250E-03	5.280E-03	3.264E-03	6.203E-04	3.312E-05	2.985E-05
Cm-243	Cm-243	9.976E-01	2.793E+00	2.726E+00	2.597E+00	2.193E+00	1.351E+00	2.484E-01	2.059E-03	8.309E-11
Cm-243	Pu-239	9.976E-01	1.845E-04	5.495E-04	1.254E-03	3.462E-03	8.022E-03	1.380E-02	1.444E-02	1.159E-02
Cm-243	U-235+D	9.976E-01	5.985E-15	4.616E-14	2.426E-13	2.060E-12	1.491E-11	1.029E-10	4.454E-10	1.450E-09
Cm-243	Pa-231	9.976E-01	5.252E-17	5.627E-18	8.708E-17	2.350E-15	6.261E-14	1.644E-12	2.544E-11	2.842E-10
Cm-243	Ac-227+D	9.976E-01	6.198E-17	1.344E-18	5.841E-17	1.267E-16	6.375E-15	4.101E-13	9.606E-12	1.296E-10
Cm-243	ΣDSR(j)		2.793E+00	2.727E+00	2.599E+00	2.196E+00	1.359E+00	2.622E-01	1.650E-02	1.159E-02
Cm-244	Cm-244	1.350E-06	3.021E-06	2.907E-06	2.694E-06	2.063E-06	9.617E-07	6.656E-08	3.268E-11	7.195E-23
Cm-244	Cm-244	4.950E-08	1.108E-07	1.066E-07	9.878E-08	7.563E-08	3.526E-08	2.441E-09	1.198E-12	2.638E-24
Cm-244	Pu-240	4.950E-08	3.355E-11	9.931E-11	2.235E-10	5.897E-10	1.223E-09	1.703E-09	1.637E-09	1.243E-09
Cm-244	ΣDSR(j)		1.108E-07	1.067E-07	9.900E-08	7.622E-08	3.649E-08	4.144E-09	1.638E-09	1.243E-09
Cm-244	Cm-244	1.000E+00	2.237E+00	2.154E+00	1.995E+00	1.528E+00	7.124E-01	4.931E-02	2.421E-05	5.330E-17
Cm-244	Pu-240	1.000E+00	6.778E-04	2.006E-03	4.515E-03	1.191E-02	2.470E-02	3.441E-02	3.306E-02	2.511E-02
Cm-244	U-236	1.000E+00	6.319E-13	5.016E-12	2.646E-11	2.191E-10	1.472E-09	8.646E-09	3.013E-08	8.111E-08
Cm-244	Th-232	1.000E+00	6.614E-22	2.056E-22	3.026E-21	2.778E-20	1.280E-18	2.962E-17	3.619E-16	3.733E-15
Cm-244	Ra-228+D	1.000E+00	1.006E-21	9.254E-22	2.456E-21	4.392E-20	1.881E-18	7.009E-17	1.386E-15	1.675E-14
Cm-244	Th-228+D	1.000E+00	5.120E-21	4.771E-21	8.149E-21	1.100E-20	1.717E-19	7.212E-18	4.818E-16	7.800E-15
Cm-244	ΣDSR(j)		2.238E+00	2.156E+00	2.000E+00	1.540E+00	7.371E-01	8.372E-02	3.309E-02	2.511E-02
Co-58	Co-58	1.000E+00	5.019E-02	1.405E-03	1.099E-06	1.475E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	Co-60	1.000E+00	1.299E+00	1.139E+00	8.745E-01	3.471E-01	2.476E-02	2.403E-06	2.944E-17	0.000E+00
Cs-134	Cs-134	1.000E+00	1.854E+00	1.326E+00	6.778E-01	6.476E-02	7.898E-05	4.989E-15	7.707E-44	0.000E+00
Cs-137+D	Cs-137+D	1.000E+00	1.472E+00	1.440E+00	1.377E+00	1.177E+00	7.516E-01	1.561E-01	2.611E-03	2.559E-10

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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
Eu-152	Eu-152	7.208E-01	2.927E-02	2.778E-02	2.502E-02	1.734E-02	6.088E-03	1.594E-04	1.890E-07	3.708E-23
Eu-152	Eu-152	2.792E-01	1.134E-02	1.076E-02	9.690E-03	6.717E-03	2.358E-03	6.176E-05	7.323E-08	1.436E-23
Eu-152	Gd-152	2.792E-01	1.406E-16	3.918E-16	8.531E-16	2.139E-15	4.044E-15	5.143E-15	5.949E-15	5.856E-15
Eu-152	ΣDSR(j)		1.134E-02	1.076E-02	9.690E-03	6.717E-03	2.358E-03	6.176E-05	7.323E-08	5.856E-15
Eu-154	Eu-154	1.000E+00	5.906E-02	5.456E-02	4.658E-02	2.677E-02	5.501E-03	2.202E-05	9.364E-11	1.324E-34
Eu-155	Eu-155	1.000E+00	9.177E-03	7.977E-03	6.027E-03	2.260E-03	1.370E-04	7.526E-09	1.644E-20	0.000E+00
Fe-55	Fe-55	1.000E+00	1.382E-03	1.069E-03	6.400E-04	1.061E-04	6.248E-07	9.794E-15	7.267E-37	0.000E+00
H-3	H-3	1.000E+00	1.366E-01	1.133E-01	7.793E-02	2.102E-02	4.969E-04	1.010E-09	0.000E+00	0.000E+00
Ni-59	Ni-59	1.000E+00	1.852E-02	1.850E-02	1.846E-02	1.832E-02	1.792E-02	1.657E-02	1.364E-02	4.413E-03
Ni-63	Ni-63	1.000E+00	5.072E-02	5.030E-02	4.947E-02	4.667E-02	3.951E-02	2.205E-02	4.294E-03	8.922E-06
Np-237+D	Np-237+D	1.000E+00	4.406E+02	4.372E+02	4.305E+02	4.077E+02	3.490E+02	2.025E+02	4.280E+01	1.793E-01
Np-237+D	U-233	1.000E+00	4.320E-06	1.122E-05	2.453E-05	6.947E-05	1.846E-04	4.658E-04	7.493E-04	6.307E-04
Np-237+D	Th-229+D	1.000E+00	2.677E-10	1.769E-09	9.074E-09	7.878E-08	6.283E-07	5.736E-06	3.759E-05	1.621E-04
Np-237+D	ΣDSR(j)		4.406E+02	4.372E+02	4.305E+02	4.077E+02	3.490E+02	2.025E+02	4.280E+01	1.801E-01
Pu-238	Pu-238	1.840E-09	2.158E-08	2.140E-08	2.106E-08	1.989E-08	1.691E-08	9.572E-09	1.892E-09	6.138E-12
Pu-238	Pu-238	1.000E+00	1.173E+01	1.163E+01	1.144E+01	1.081E+01	9.189E+00	5.202E+00	1.028E+00	3.336E-03
Pu-238	U-234	1.000E+00	2.143E-06	6.423E-06	1.488E-05	4.337E-05	1.160E-04	2.907E-04	4.590E-04	3.820E-04
Pu-238	Th-230	1.000E+00	2.006E-12	1.461E-11	7.602E-11	6.616E-10	5.269E-09	4.786E-08	2.855E-07	1.144E-06
Pu-238	Ra-226+D	1.000E+00	4.765E-13	7.838E-13	9.891E-13	1.249E-11	2.888E-10	9.684E-09	3.067E-07	5.378E-06
Pu-238	Pb-210+D	1.000E+00	3.002E-11	4.639E-11	3.456E-11	4.140E-11	2.224E-10	1.421E-08	4.553E-07	8.114E-06
Pu-238	Po-210	1.000E+00	6.730E-12	9.826E-12	8.445E-12	9.083E-12	9.322E-11	7.939E-09	2.466E-07	4.408E-06
Pu-238	ΣDSR(j)		1.173E+01	1.163E+01	1.144E+01	1.081E+01	9.189E+00	5.203E+00	1.029E+00	3.737E-03
Pu-239	Pu-239	1.000E+00	1.302E+01	1.302E+01	1.301E+01	1.299E+01	1.292E+01	1.269E+01	1.211E+01	9.710E+00
Pu-239	U-235+D	1.000E+00	7.052E-10	2.121E-09	4.951E-09	1.483E-08	4.282E-08	1.382E-07	4.324E-07	1.265E-06
Pu-239	Pa-231	1.000E+00	8.887E-14	2.587E-13	2.922E-12	2.999E-11	2.572E-10	2.844E-09	2.801E-08	2.590E-07
Pu-239	Ac-227+D	1.000E+00	3.791E-13	1.688E-13	4.216E-13	1.962E-12	3.374E-11	7.940E-10	1.086E-08	1.185E-07
Pu-239	ΣDSR(j)		1.302E+01	1.302E+01	1.301E+01	1.299E+01	1.292E+01	1.269E+01	1.211E+01	9.710E+00
Pu-240	Pu-240	4.950E-08	6.446E-07	6.444E-07	6.440E-07	6.425E-07	6.382E-07	6.235E-07	5.858E-07	4.449E-07
Pu-240	Pu-240	1.000E+00	1.302E+01	1.302E+01	1.301E+01	1.298E+01	1.289E+01	1.260E+01	1.184E+01	8.988E+00
Pu-240	U-236	1.000E+00	2.134E-08	6.416E-08	1.497E-07	4.483E-07	1.294E-06	4.162E-06	1.182E-05	2.981E-05
Pu-240	Th-232	1.000E+00	6.531E-18	8.391E-18	2.866E-17	2.029E-16	1.627E-15	1.744E-14	1.546E-13	1.412E-12
Pu-240	Ra-228+D	1.000E+00	8.412E-20	5.934E-19	6.830E-18	1.564E-16	2.596E-15	4.261E-14	5.946E-13	6.342E-12
Pu-240	Th-228+D	1.000E+00	1.703E-18	1.592E-18	2.936E-18	1.309E-17	2.481E-16	4.436E-15	2.071E-13	2.953E-12
Pu-240	ΣDSR(j)		1.302E+01	1.302E+01	1.301E+01	1.298E+01	1.289E+01	1.260E+01	1.184E+01	8.988E+00

Summary : RESRAD Default Parameters

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Dose/Source Ratios Summed Over All Pathways
Parent and Progeny Principal Radionuclide Contributions Indicated

Parent (i)	Product (j)	Thread Fraction	DSR(j,t) At Time in Years (mrem/yr)/(pCi/g)							
			0.000E+00	1.000E+00	3.000E+00	1.000E+01	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	2.125E-01	1.515E-01	5.758E-02	1.950E-03	1.234E-07	2.347E-22
Pu-241	Am-241	1.000E+00	6.370E-03	1.863E-02	4.137E-02	1.051E-01	1.992E-01	2.314E-01	1.684E-01	4.896E-02
Pu-241	Np-237+D	1.000E+00	3.701E-08	2.576E-07	1.319E-06	1.040E-05	6.216E-05	2.572E-04	3.947E-04	1.402E-04
Pu-241	U-233	1.000E+00	3.499E-16	2.799E-15	2.772E-14	6.143E-13	1.124E-11	1.890E-10	1.278E-09	3.402E-09
Pu-241	Th-229+D	1.000E+00	4.841E-17	5.734E-17	6.545E-17	3.747E-16	1.979E-14	1.265E-12	3.531E-11	5.009E-10
Pu-241	ΣDSR(j)		2.520E-01	2.527E-01	2.539E-01	2.566E-01	2.568E-01	2.336E-01	1.688E-01	4.910E-02
Pu-241+D	Pu-241+D	2.450E-05	6.298E-06	6.001E-06	5.448E-06	3.883E-06	1.476E-06	4.999E-08	4.216E-12	1.151E-26
Pu-241+D	Np-237+D	2.450E-05	1.702E-09	5.018E-09	1.112E-08	2.764E-08	4.843E-08	3.890E-08	8.365E-09	3.505E-11
Pu-241+D	U-233	2.450E-05	1.259E-17	7.306E-17	3.387E-16	2.526E-15	1.497E-14	6.453E-14	1.211E-13	1.042E-13
Pu-241+D	Th-229+D	2.450E-05	4.172E-21	1.190E-20	8.650E-20	1.961E-18	3.704E-17	6.542E-16	5.575E-15	2.608E-14
Pu-241+D	ΣDSR(j)		6.300E-06	6.006E-06	5.459E-06	3.911E-06	1.525E-06	8.889E-08	8.369E-09	3.518E-11
Sb-125	Sb-125	7.720E-01	2.029E-01	1.566E-01	9.337E-02	1.527E-02	8.657E-05	1.187E-12	1.197E-34	0.000E+00
Sb-125	Sb-125	2.280E-01	5.991E-02	4.626E-02	2.758E-02	4.511E-03	2.557E-05	3.507E-13	3.535E-35	0.000E+00
Sb-125	Te-125m	2.280E-01	4.143E-02	4.341E-02	2.605E-02	4.289E-03	2.478E-05	3.622E-13	1.462E-35	0.000E+00
Sb-125	ΣDSR(j)		1.013E-01	8.966E-02	5.362E-02	8.800E-03	5.035E-05	7.128E-13	4.997E-35	0.000E+00
Sr-90+D	Sr-90+D	1.000E+00	2.694E+01	2.615E+01	2.464E+01	2.000E+01	1.101E+01	1.364E+00	3.481E-03	2.016E-12
Tc-99	Tc-99	1.000E+00	4.512E+00	3.922E+00	2.959E+00	1.105E+00	6.618E-02	3.480E-06	2.059E-18	0.000E+00

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

Summary : RESRAD Default Parameters

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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	3.131E+00	3.167E+00	3.273E+00	3.676E+00	5.091E+00	1.750E+01
C-14	1.571E+01	1.617E+01	1.714E+01	2.101E+01	3.757E+01	2.874E+02	*4.455E+12	*4.455E+12
Ce-144	1.024E+03	2.494E+03	1.480E+04	7.533E+06	4.077E+14	*3.191E+15	*3.191E+15	*3.191E+15
Cm-243	8.929E+00	9.147E+00	9.598E+00	1.136E+01	1.835E+01	9.512E+01	1.512E+03	2.152E+03
Cm-244	1.117E+01	1.160E+01	1.250E+01	1.624E+01	3.392E+01	2.986E+02	7.556E+02	9.957E+02
Co-58	4.981E+02	1.780E+04	2.274E+07	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16
Co-60	1.924E+01	2.195E+01	2.859E+01	7.203E+01	1.010E+03	1.041E+07	*1.132E+15	*1.132E+15
Cs-134	1.348E+01	1.886E+01	3.688E+01	3.860E+02	3.165E+05	*1.295E+15	*1.295E+15	*1.295E+15
Cs-137	1.698E+01	1.737E+01	1.816E+01	2.125E+01	3.326E+01	1.602E+02	9.574E+03	9.770E+10
Eu-152	6.156E+02	6.487E+02	7.203E+02	1.039E+03	2.960E+03	1.130E+05	9.532E+07	*1.765E+14
Eu-154	4.233E+02	4.582E+02	5.367E+02	9.340E+02	4.545E+03	1.135E+06	2.670E+11	*2.639E+14
Eu-155	2.724E+03	3.134E+03	4.148E+03	1.106E+04	1.824E+05	3.322E+09	*4.652E+14	*4.652E+14
Fe-55	1.808E+04	2.338E+04	3.906E+04	2.356E+05	4.001E+07	*2.410E+15	*2.410E+15	*2.410E+15
H-3	1.830E+02	2.206E+02	3.208E+02	1.190E+03	5.031E+04	2.475E+10	*9.597E+15	*9.597E+15
Ni-59	1.350E+03	1.351E+03	1.354E+03	1.365E+03	1.395E+03	1.509E+03	1.832E+03	5.665E+03
Ni-63	4.929E+02	4.970E+02	5.054E+02	5.357E+02	6.327E+02	1.134E+03	5.823E+03	2.802E+06
Np-237	5.674E-02	5.718E-02	5.808E-02	6.132E-02	7.164E-02	1.235E-01	5.841E-01	1.388E+02
Pu-238	2.132E+00	2.149E+00	2.185E+00	2.312E+00	2.721E+00	4.805E+00	2.430E+01	6.690E+03
Pu-239	1.920E+00	1.920E+00	1.921E+00	1.925E+00	1.934E+00	1.969E+00	2.064E+00	2.575E+00
Pu-240	1.920E+00	1.920E+00	1.922E+00	1.926E+00	1.939E+00	1.985E+00	2.112E+00	2.782E+00
Pu-241	9.919E+01	9.893E+01	9.848E+01	9.744E+01	9.735E+01	1.070E+02	1.481E+02	5.092E+02
Sb-125	8.218E+01	1.015E+02	1.701E+02	1.039E+03	1.826E+05	1.316E+13	*1.033E+15	*1.033E+15
Sr-90	9.280E-01	9.560E-01	1.015E+00	1.250E+00	2.270E+00	1.832E+01	7.182E+03	1.240E+13
Tc-99	5.541E+00	6.375E+00	8.448E+00	2.263E+01	3.777E+02	7.184E+06	*1.697E+10	*1.697E+10

*At specific activity limit

Summary : RESRAD Default Parameters

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

Nuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
Am-241	1.000E+00	0.000E+00	8.025E+00	3.115E+00	8.025E+00	3.115E+00
C-14	1.000E+00	0.000E+00	1.591E+00	1.571E+01	1.591E+00	1.571E+01
Ce-144	1.000E+00	0.000E+00	2.441E-02	1.024E+03	2.441E-02	1.024E+03
Cm-243	1.000E+00	0.000E+00	2.800E+00	8.929E+00	2.800E+00	8.929E+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	5.019E-02	4.981E+02	5.019E-02	4.981E+02
Co-60	1.000E+00	0.000E+00	1.299E+00	1.924E+01	1.299E+00	1.924E+01
Cs-134	1.000E+00	0.000E+00	1.854E+00	1.348E+01	1.854E+00	1.348E+01
Cs-137	1.000E+00	0.000E+00	1.472E+00	1.698E+01	1.472E+00	1.698E+01
Eu-152	1.000E+00	0.000E+00	4.061E-02	6.156E+02	4.061E-02	6.156E+02
Eu-154	1.000E+00	0.000E+00	5.906E-02	4.233E+02	5.906E-02	4.233E+02
Eu-155	1.000E+00	0.000E+00	9.177E-03	2.724E+03	9.177E-03	2.724E+03
Fe-55	1.000E+00	0.000E+00	1.382E-03	1.808E+04	1.382E-03	1.808E+04
H-3	1.000E+00	0.000E+00	1.366E-01	1.830E+02	1.366E-01	1.830E+02
Ni-59	1.000E+00	0.000E+00	1.852E-02	1.350E+03	1.852E-02	1.350E+03
Ni-63	1.000E+00	0.000E+00	5.072E-02	4.929E+02	5.072E-02	4.929E+02
Np-237	1.000E+00	0.000E+00	4.406E+02	5.674E-02	4.406E+02	5.674E-02
Pu-238	1.000E+00	0.000E+00	1.173E+01	2.132E+00	1.173E+01	2.132E+00
Pu-239	1.000E+00	0.000E+00	1.302E+01	1.920E+00	1.302E+01	1.920E+00
Pu-240	1.000E+00	0.000E+00	1.302E+01	1.920E+00	1.302E+01	1.920E+00
Pu-241	1.000E+00	19.76 ± 0.04	2.577E-01	9.700E+01	2.521E-01	9.919E+01
Sb-125	1.000E+00	0.000E+00	3.042E-01	8.218E+01	3.042E-01	8.218E+01
Sr-90	1.000E+00	0.000E+00	2.694E+01	9.280E-01	2.694E+01	9.280E-01
Tc-99	1.000E+00	0.000E+00	4.512E+00	5.541E+00	4.512E+00	5.541E+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
Am-241	Am-241	1.000E+00	8.025E+00	8.012E+00	7.985E+00	7.893E+00	7.634E+00	6.793E+00	4.898E+00	1.424E+00
Am-241	Pu-241	1.000E+00	6.370E-03	1.863E-02	4.137E-02	1.051E-01	1.992E-01	2.314E-01	1.684E-01	4.896E-02
Am-241	ΣDOSE(j)		8.032E+00	8.030E+00	8.027E+00	7.998E+00	7.833E+00	7.024E+00	5.067E+00	1.473E+00
Np-237	Am-241	1.000E+00	7.053E-05	2.123E-04	4.921E-04	1.430E-03	3.785E-03	9.071E-03	1.182E-02	4.079E-03
Np-237	Np-237	1.000E+00	4.406E+02	4.372E+02	4.305E+02	4.077E+02	3.490E+02	2.025E+02	4.280E+01	1.793E-01
Np-237	Pu-241	1.000E+00	3.701E-08	2.576E-07	1.319E-06	1.040E-05	6.216E-05	2.572E-04	3.947E-04	1.402E-04
Np-237	Pu-241	2.450E-05	1.702E-09	5.018E-09	1.112E-08	2.764E-08	4.843E-08	3.890E-08	8.365E-09	3.505E-11
Np-237	ΣDOSE(j)		4.406E+02	4.372E+02	4.305E+02	4.077E+02	3.490E+02	2.025E+02	4.281E+01	1.836E-01
U-233	Am-241	1.000E+00	5.365E-13	3.076E-12	1.464E-11	1.210E-10	9.380E-10	8.132E-09	4.211E-08	1.032E-07
U-233	Np-237	1.000E+00	4.320E-06	1.122E-05	2.453E-05	6.947E-05	1.846E-04	4.658E-04	7.493E-04	6.307E-04
U-233	Pu-241	1.000E+00	3.499E-16	2.799E-15	2.772E-14	6.143E-13	1.124E-11	1.890E-10	1.278E-09	3.402E-09
U-233	Pu-241	2.450E-05	1.259E-17	7.306E-17	3.387E-16	2.526E-15	1.497E-14	6.453E-14	1.211E-13	1.042E-13
U-233	ΣDOSE(j)		4.320E-06	1.122E-05	2.453E-05	6.947E-05	1.846E-04	4.658E-04	7.493E-04	6.309E-04
Th-229	Am-241	1.000E+00	1.181E-15	1.563E-15	3.921E-15	9.021E-14	2.087E-12	6.350E-11	1.255E-09	1.564E-08
Th-229	Np-237	1.000E+00	2.677E-10	1.769E-09	9.074E-09	7.878E-08	6.283E-07	5.736E-06	3.759E-05	1.621E-04
Th-229	Pu-241	1.000E+00	4.841E-17	5.734E-17	6.545E-17	3.747E-16	1.979E-14	1.265E-12	3.531E-11	5.009E-10
Th-229	Pu-241	2.450E-05	4.172E-21	1.190E-20	8.650E-20	1.961E-18	3.704E-17	6.542E-16	5.575E-15	2.608E-14
Th-229	ΣDOSE(j)		2.677E-10	1.769E-09	9.074E-09	7.878E-08	6.283E-07	5.736E-06	3.759E-05	1.621E-04
C-14	C-14	1.000E+00	1.591E+00	1.546E+00	1.459E+00	1.190E+00	6.655E-01	8.697E-02	0.000E+00	0.000E+00
Ce-144	Ce-144	1.000E+00	2.441E-02	1.002E-02	1.689E-03	3.319E-06	6.132E-14	0.000E+00	0.000E+00	0.000E+00
Cm-243	Cm-243	2.400E-03	6.719E-03	6.558E-03	6.249E-03	5.275E-03	3.251E-03	5.976E-04	4.954E-06	1.999E-13
Cm-243	Cm-243	9.976E-01	2.793E+00	2.726E+00	2.597E+00	2.193E+00	1.351E+00	2.484E-01	2.059E-03	8.309E-11
Cm-243	ΣDOSE(j)		2.800E+00	2.733E+00	2.604E+00	2.198E+00	1.355E+00	2.490E-01	2.064E-03	8.329E-11
Am-243	Cm-243	2.400E-03	2.928E-07	8.666E-07	1.973E-06	5.457E-06	1.273E-05	2.250E-05	2.730E-05	2.711E-05
Pu-239	Cm-243	2.400E-03	1.488E-11	9.780E-11	5.067E-10	4.284E-09	3.105E-08	2.160E-07	8.664E-07	2.740E-06
Pu-239	Cm-243	9.976E-01	1.845E-04	5.495E-04	1.254E-03	3.462E-03	8.022E-03	1.380E-02	1.444E-02	1.159E-02
Pu-239	Pu-239	1.000E+00	1.302E+01	1.302E+01	1.301E+01	1.299E+01	1.292E+01	1.269E+01	1.211E+01	9.710E+00
Pu-239	ΣDOSE(j)		1.302E+01	1.302E+01	1.301E+01	1.299E+01	1.293E+01	1.271E+01	1.213E+01	9.721E+00
U-235	Cm-243	2.400E-03	1.310E-19	2.215E-20	2.148E-19	1.670E-18	3.615E-17	9.137E-16	1.364E-14	1.694E-13
U-235	Cm-243	9.976E-01	5.985E-15	4.616E-14	2.426E-13	2.060E-12	1.491E-11	1.029E-10	4.454E-10	1.450E-09
U-235	Pu-239	1.000E+00	7.052E-10	2.121E-09	4.951E-09	1.483E-08	4.282E-08	1.382E-07	4.324E-07	1.265E-06
U-235	ΣDOSE(j)		7.052E-10	2.121E-09	4.951E-09	1.483E-08	4.284E-08	1.383E-07	4.329E-07	1.267E-06
Pa-231	Cm-243	2.400E-03	4.359E-20	1.329E-19	1.698E-18	6.202E-19	2.415E-19	5.054E-18	4.847E-16	2.129E-14
Pa-231	Cm-243	9.976E-01	5.252E-17	5.627E-18	8.708E-17	2.350E-15	6.261E-14	1.644E-12	2.544E-11	2.842E-10
Pa-231	Pu-239	1.000E+00	8.887E-14	2.587E-13	2.922E-12	2.999E-11	2.572E-10	2.844E-09	2.801E-08	2.590E-07
Pa-231	ΣDOSE(j)		8.892E-14	2.587E-13	2.922E-12	2.999E-11	2.573E-10	2.845E-09	2.804E-08	2.593E-07
Ac-227	Cm-243	2.400E-03	1.414E-18	6.732E-18	1.020E-17	4.462E-18	4.923E-18	4.058E-18	1.854E-16	9.418E-15
Ac-227	Cm-243	9.976E-01	6.198E-17	1.344E-18	5.841E-17	1.267E-16	6.375E-15	4.101E-13	9.606E-12	1.296E-10

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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
Ac-227	Pu-239	1.000E+00	3.791E-13	1.688E-13	4.216E-13	1.962E-12	3.374E-11	7.940E-10	1.086E-08	1.185E-07
Ac-227	ΣDOSE(j)		3.792E-13	1.688E-13	4.217E-13	1.962E-12	3.375E-11	7.944E-10	1.086E-08	1.186E-07
Cm-244	Cm-244	1.350E-06	3.021E-06	2.907E-06	2.694E-06	2.063E-06	9.617E-07	6.656E-08	3.268E-11	7.195E-23
Cm-244	Cm-244	4.950E-08	1.108E-07	1.066E-07	9.878E-08	7.563E-08	3.526E-08	2.441E-09	1.198E-12	2.638E-24
Cm-244	ΣDOSE(j)		3.131E-06	3.014E-06	2.793E-06	2.138E-06	9.970E-07	6.900E-08	3.388E-11	7.459E-23
Pu-240	Cm-244	4.950E-08	3.355E-11	9.931E-11	2.235E-10	5.897E-10	1.223E-09	1.703E-09	1.637E-09	1.243E-09
Pu-240	Pu-240	4.950E-08	6.446E-07	6.444E-07	6.440E-07	6.425E-07	6.382E-07	6.235E-07	5.858E-07	4.449E-07
Pu-240	ΣDOSE(j)		6.447E-07	6.445E-07	6.442E-07	6.431E-07	6.394E-07	6.252E-07	5.875E-07	4.461E-07
Cm-244	Cm-244	1.000E+00	2.237E+00	2.154E+00	1.995E+00	1.528E+00	7.124E-01	4.931E-02	2.421E-05	5.330E-17
Pu-240	Cm-244	1.000E+00	6.778E-04	2.006E-03	4.515E-03	1.191E-02	2.470E-02	3.441E-02	3.306E-02	2.511E-02
U-236	Cm-244	1.000E+00	6.319E-13	5.016E-12	2.646E-11	2.191E-10	1.472E-09	8.646E-09	3.013E-08	8.111E-08
U-236	Pu-240	1.000E+00	2.134E-08	6.416E-08	1.497E-07	4.483E-07	1.294E-06	4.162E-06	1.182E-05	2.981E-05
U-236	ΣDOSE(j)		2.135E-08	6.417E-08	1.497E-07	4.485E-07	1.295E-06	4.171E-06	1.185E-05	2.989E-05
Th-232	Cm-244	1.000E+00	6.614E-22	2.056E-22	3.026E-21	2.778E-20	1.280E-18	2.962E-17	3.619E-16	3.733E-15
Th-232	Pu-240	1.000E+00	6.531E-18	8.391E-18	2.866E-17	2.029E-16	1.627E-15	1.744E-14	1.546E-13	1.412E-12
Th-232	ΣDOSE(j)		6.532E-18	8.392E-18	2.866E-17	2.029E-16	1.629E-15	1.747E-14	1.550E-13	1.416E-12
Ra-228	Cm-244	1.000E+00	1.006E-21	9.254E-22	2.456E-21	4.392E-20	1.881E-18	7.009E-17	1.386E-15	1.675E-14
Ra-228	Pu-240	1.000E+00	8.412E-20	5.934E-19	6.830E-18	1.564E-16	2.596E-15	4.261E-14	5.946E-13	6.342E-12
Ra-228	ΣDOSE(j)		8.513E-20	5.944E-19	6.832E-18	1.564E-16	2.598E-15	4.268E-14	5.960E-13	6.358E-12
Th-228	Cm-244	1.000E+00	5.120E-21	4.771E-21	8.149E-21	1.100E-20	1.717E-19	7.212E-18	4.818E-16	7.800E-15
Th-228	Pu-240	1.000E+00	1.703E-18	1.592E-18	2.936E-18	1.309E-17	2.481E-16	4.436E-15	2.071E-13	2.953E-12
Th-228	ΣDOSE(j)		1.708E-18	1.597E-18	2.944E-18	1.310E-17	2.483E-16	4.443E-15	2.076E-13	2.961E-12
Co-58	Co-58	1.000E+00	5.019E-02	1.405E-03	1.099E-06	1.475E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	Co-60	1.000E+00	1.299E+00	1.139E+00	8.745E-01	3.471E-01	2.476E-02	2.403E-06	2.944E-17	0.000E+00
Cs-134	Cs-134	1.000E+00	1.854E+00	1.326E+00	6.778E-01	6.476E-02	7.898E-05	4.989E-15	0.000E+00	0.000E+00
Cs-137	Cs-137	1.000E+00	1.472E+00	1.440E+00	1.377E+00	1.177E+00	7.516E-01	1.561E-01	2.611E-03	2.559E-10
Eu-152	Eu-152	7.208E-01	2.927E-02	2.778E-02	2.502E-02	1.734E-02	6.088E-03	1.594E-04	1.890E-07	3.708E-23
Eu-152	Eu-152	2.792E-01	1.134E-02	1.076E-02	9.690E-03	6.717E-03	2.358E-03	6.176E-05	7.323E-08	1.436E-23
Eu-152	ΣDOSE(j)		4.061E-02	3.854E-02	3.471E-02	2.406E-02	8.446E-03	2.212E-04	2.623E-07	5.144E-23
Gd-152	Eu-152	2.792E-01	1.406E-16	3.918E-16	8.531E-16	2.139E-15	4.044E-15	5.143E-15	5.949E-15	5.856E-15
Eu-154	Eu-154	1.000E+00	5.906E-02	5.456E-02	4.658E-02	2.677E-02	5.501E-03	2.202E-05	9.364E-11	0.000E+00
Eu-155	Eu-155	1.000E+00	9.177E-03	7.977E-03	6.027E-03	2.260E-03	1.370E-04	7.526E-09	1.644E-20	0.000E+00
Fe-55	Fe-55	1.000E+00	1.382E-03	1.069E-03	6.400E-04	1.061E-04	6.248E-07	9.794E-15	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	1.366E-01	1.133E-01	7.793E-02	2.102E-02	4.969E-04	1.010E-09	0.000E+00	0.000E+00
Ni-59	Ni-59	1.000E+00	1.852E-02	1.850E-02	1.846E-02	1.832E-02	1.792E-02	1.657E-02	1.364E-02	4.413E-03
Ni-63	Ni-63	1.000E+00	5.072E-02	5.030E-02	4.947E-02	4.667E-02	3.951E-02	2.205E-02	4.294E-03	8.922E-06
Pu-238	Pu-238	1.840E-09	2.158E-08	2.140E-08	2.106E-08	1.989E-08	1.691E-08	9.572E-09	1.892E-09	6.138E-12
Pu-238	Pu-238	1.000E+00	1.173E+01	1.163E+01	1.144E+01	1.081E+01	9.189E+00	5.202E+00	1.028E+00	3.336E-03
Pu-238	ΣDOSE(j)		1.173E+01	1.163E+01	1.144E+01	1.081E+01	9.189E+00	5.202E+00	1.028E+00	3.336E-03
U-234	Pu-238	1.000E+00	2.143E-06	6.423E-06	1.488E-05	4.337E-05	1.160E-04	2.907E-04	4.590E-04	3.820E-04
Th-230	Pu-238	1.000E+00	2.006E-12	1.461E-11	7.602E-11	6.616E-10	5.269E-09	4.786E-08	2.855E-07	1.144E-06
Ra-226	Pu-238	1.000E+00	4.765E-13	7.838E-13	9.891E-13	1.249E-11	2.888E-10	9.684E-09	3.067E-07	5.378E-06
Pb-210	Pu-238	1.000E+00	3.002E-11	4.639E-11	3.456E-11	4.140E-11	2.224E-10	1.421E-08	4.553E-07	8.114E-06
Po-210	Pu-238	1.000E+00	6.730E-12	9.826E-12	8.445E-12	9.083E-12	9.322E-11	7.939E-09	2.466E-07	4.408E-06
Pu-240	Pu-240	1.000E+00	1.302E+01	1.302E+01	1.301E+01	1.298E+01	1.289E+01	1.260E+01	1.184E+01	8.988E+00
Pu-241	Pu-241	1.000E+00	2.457E-01	2.341E-01	2.125E-01	1.515E-01	5.758E-02	1.950E-03	1.234E-07	2.347E-22
Pu-241	Pu-241	2.450E-05	6.298E-06	6.001E-06	5.448E-06	3.883E-06	1.476E-06	4.999E-08	4.216E-12	1.151E-26
Pu-241	ΣDOSE(j)		2.457E-01	2.341E-01	2.125E-01	1.515E-01	5.758E-02	1.950E-03	1.234E-07	2.347E-22
Sb-125	Sb-125	7.720E-01	2.029E-01	1.566E-01	9.337E-02	1.527E-02	8.657E-05	1.187E-12	0.000E+00	0.000E+00
Sb-125	Sb-125	2.280E-01	5.991E-02	4.626E-02	2.758E-02	4.511E-03	2.557E-05	3.507E-13	0.000E+00	0.000E+00
Sb-125	ΣDOSE(j)		2.628E-01	2.029E-01	1.209E-01	1.978E-02	1.121E-04	1.538E-12	0.000E+00	0.000E+00
Te-125m	Sb-125	2.280E-01	4.143E-02	4.341E-02	2.605E-02	4.289E-03	2.478E-05	3.622E-13	0.000E+00	0.000E+00
Sr-90	Sr-90	1.000E+00	2.694E+01	2.615E+01	2.464E+01	2.000E+01	1.101E+01	1.364E+00	3.481E-03	2.016E-12
Tc-99	Tc-99	1.000E+00	4.512E+00	3.922E+00	2.959E+00	1.105E+00	6.618E-02	3.480E-06	2.059E-18	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	9.947E-01	9.824E-01	9.482E-01	8.376E-01	5.877E-01	1.700E-01
Am-241	Pu-241	1.000E+00	0.000E+00	1.564E-03	4.466E-03	1.259E-02	2.455E-02	2.852E-02	2.020E-02	5.843E-03
Am-241	ΣS(j):		1.000E+00	9.998E-01	9.992E-01	9.950E-01	9.728E-01	8.661E-01	6.079E-01	1.758E-01
Np-237	Am-241	1.000E+00	0.000E+00	3.224E-07	9.578E-07	3.088E-06	8.426E-06	2.035E-05	2.633E-05	9.077E-06
Np-237	Np-237	1.000E+00	1.000E+00	9.922E-01	9.768E-01	9.247E-01	7.908E-01	4.573E-01	9.565E-02	4.003E-04
Np-237	Pu-241	1.000E+00	0.000E+00	2.548E-10	2.207E-09	2.152E-08	1.369E-07	5.764E-07	8.790E-07	3.119E-07
Np-237	Pu-241	2.450E-05	0.000E+00	7.716E-12	2.189E-11	6.031E-11	1.088E-10	8.784E-11	1.870E-11	7.823E-14
Np-237	ΣS(j):		1.000E+00	9.922E-01	9.768E-01	9.248E-01	7.908E-01	4.574E-01	9.568E-02	4.096E-04
U-233	Am-241	1.000E+00	0.000E+00	7.059E-13	6.311E-12	6.851E-11	5.774E-10	5.137E-09	2.606E-08	6.372E-08
U-233	Np-237	1.000E+00	0.000E+00	4.355E-06	1.296E-05	4.198E-05	1.162E-04	2.963E-04	4.647E-04	3.895E-04
U-233	Pu-241	1.000E+00	0.000E+00	3.731E-16	9.787E-15	3.284E-13	6.813E-12	1.191E-10	7.904E-10	2.100E-09
U-233	Pu-241	2.450E-05	0.000E+00	1.703E-17	1.476E-16	1.444E-15	9.290E-15	4.098E-14	7.511E-14	6.437E-14
U-233	ΣS(j):		0.000E+00	4.355E-06	1.296E-05	4.198E-05	1.162E-04	2.963E-04	4.647E-04	3.896E-04
Th-229	Am-241	1.000E+00	0.000E+00	2.224E-17	5.974E-16	2.174E-14	5.582E-13	1.745E-11	3.035E-10	3.447E-09
Th-229	Np-237	1.000E+00	0.000E+00	2.059E-10	1.843E-09	2.008E-08	1.711E-07	1.585E-06	9.108E-06	3.574E-05
Th-229	Pu-241	1.000E+00	0.000E+00	8.834E-21	6.992E-19	7.972E-17	5.218E-15	3.468E-13	8.538E-12	1.104E-10
Th-229	Pu-241	2.450E-05	0.000E+00	5.385E-22	1.414E-20	4.757E-19	9.958E-18	1.804E-16	1.351E-15	5.751E-15
Th-229	ΣS(j):		0.000E+00	2.059E-10	1.843E-09	2.008E-08	1.711E-07	1.585E-06	9.109E-06	3.575E-05
C-14	C-14	1.000E+00	1.000E+00	9.713E-01	9.163E-01	7.473E-01	4.173E-01	5.432E-02	0.000E+00	0.000E+00
Ce-144	Ce-144	1.000E+00	1.000E+00	4.104E-01	6.912E-02	1.355E-04	2.490E-12	2.093E-39	0.000E+00	0.000E+00
Cm-243	Cm-243	2.400E-03	2.400E-03	2.342E-03	2.231E-03	1.880E-03	1.154E-03	2.092E-04	1.589E-06	6.073E-14
Cm-243	Cm-243	9.976E-01	9.976E-01	9.736E-01	9.272E-01	7.816E-01	4.798E-01	8.695E-02	6.605E-04	2.524E-11
Cm-243	ΣS(j):		1.000E+00	9.759E-01	9.294E-01	7.835E-01	4.809E-01	8.716E-02	6.621E-04	2.530E-11
Am-243	Cm-243	2.400E-03	0.000E+00	2.227E-07	6.519E-07	1.999E-06	4.784E-06	8.353E-06	8.905E-06	8.084E-06
Pu-239	Cm-243	2.400E-03	0.000E+00	3.220E-12	2.850E-11	2.993E-10	2.311E-09	1.636E-08	6.487E-08	2.051E-07
Pu-239	Cm-243	9.976E-01	0.000E+00	2.838E-05	8.308E-05	2.545E-04	6.080E-04	1.052E-03	1.084E-03	8.676E-04
Pu-239	Pu-239	1.000E+00	1.000E+00	9.997E-01	9.990E-01	9.968E-01	9.905E-01	9.686E-01	9.088E-01	7.271E-01
Pu-239	ΣS(j):		1.000E+00	9.997E-01	9.991E-01	9.971E-01	9.911E-01	9.697E-01	9.099E-01	7.280E-01
U-235	Cm-243	2.400E-03	0.000E+00	1.059E-21	2.824E-20	1.002E-18	2.403E-17	6.231E-16	8.335E-15	9.151E-14
U-235	Cm-243	9.976E-01	0.000E+00	1.403E-14	1.242E-13	1.303E-12	1.004E-11	7.056E-11	2.727E-10	7.838E-10
U-235	Pu-239	1.000E+00	0.000E+00	9.845E-10	2.951E-09	9.813E-09	2.922E-08	9.496E-08	2.648E-07	6.841E-07
U-235	ΣS(j):		0.000E+00	9.845E-10	2.951E-09	9.814E-09	2.923E-08	9.503E-08	2.651E-07	6.849E-07
Pa-231	Cm-243	2.400E-03	0.000E+00	5.609E-27	4.497E-25	5.362E-23	3.947E-21	3.629E-19	1.600E-17	6.434E-16
Pa-231	Cm-243	9.976E-01	0.000E+00	9.917E-20	2.644E-18	9.378E-17	2.250E-15	5.834E-14	7.804E-13	8.566E-12
Pa-231	Pu-239	1.000E+00	0.000E+00	1.042E-14	9.369E-14	1.039E-12	9.296E-12	1.012E-10	8.597E-10	7.809E-09
Pa-231	ΣS(j):		0.000E+00	1.042E-14	9.369E-14	1.039E-12	9.298E-12	1.013E-10	8.605E-10	7.818E-09
Ac-227	Cm-243	2.400E-03	0.000E+00	3.555E-29	8.477E-27	3.266E-24	6.622E-22	1.550E-19	1.162E-17	5.876E-16
Ac-227	Cm-243	9.976E-01	0.000E+00	7.852E-22	6.217E-20	7.096E-18	4.630E-16	2.935E-14	6.214E-13	8.079E-12

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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
Ac-227	Pu-239	1.000E+00	0.000E+00	1.097E-16	2.913E-15	1.021E-13	2.373E-12	5.699E-11	7.027E-10
Ac-227	ΣS(j):		0.000E+00	1.097E-16	2.913E-15	1.021E-13	2.373E-12	5.702E-11	7.033E-10
Cm-244	Cm-244	1.350E-06	1.350E-06	1.299E-06	1.203E-06	9.200E-07	4.272E-07	2.915E-08	1.359E-11
Cm-244	Cm-244	4.950E-08	4.950E-08	4.764E-08	4.412E-08	3.373E-08	1.566E-08	1.069E-09	4.984E-13
Cm-244	ΣS(j):		1.399E-06	1.347E-06	1.247E-06	9.537E-07	4.429E-07	3.022E-08	1.409E-11
Pu-240	Cm-244	4.950E-08	0.000E+00	5.148E-12	1.486E-11	4.350E-11	9.289E-11	1.299E-10	1.228E-10
Pu-240	Pu-240	4.950E-08	4.950E-08	4.948E-08	4.944E-08	4.930E-08	4.892E-08	4.758E-08	4.396E-08
Pu-240	ΣS(j):		4.950E-08	4.949E-08	4.946E-08	4.935E-08	4.901E-08	4.771E-08	4.408E-08
Cm-244	Cm-244	1.000E+00	1.000E+00	9.624E-01	8.913E-01	6.814E-01	3.164E-01	2.159E-02	1.007E-05
Pu-240	Cm-244	1.000E+00	0.000E+00	1.040E-04	3.003E-04	8.788E-04	1.877E-03	2.625E-03	2.481E-03
U-236	Cm-244	1.000E+00	0.000E+00	1.549E-12	1.359E-11	1.383E-10	9.879E-10	5.898E-09	2.005E-08
U-236	Pu-240	1.000E+00	0.000E+00	2.959E-08	8.870E-08	2.948E-07	8.774E-07	2.843E-06	7.869E-06
U-236	ΣS(j):		0.000E+00	2.959E-08	8.871E-08	2.950E-07	8.784E-07	2.849E-06	7.889E-06
Th-232	Cm-244	1.000E+00	0.000E+00	2.556E-23	6.768E-22	2.346E-20	5.313E-19	1.204E-17	1.410E-16
Th-232	Pu-240	1.000E+00	0.000E+00	7.300E-19	6.566E-18	7.281E-17	6.515E-16	7.093E-15	6.025E-14
Th-232	ΣS(j):		0.000E+00	7.300E-19	6.567E-18	7.283E-17	6.520E-16	7.105E-15	6.039E-14
Ra-228	Cm-244	1.000E+00	0.000E+00	7.535E-25	5.734E-23	5.749E-21	2.778E-19	9.889E-18	1.331E-16
Ra-228	Pu-240	1.000E+00	0.000E+00	2.847E-20	7.250E-19	2.221E-17	3.886E-16	6.026E-15	5.713E-14
Ra-228	ΣS(j):		0.000E+00	2.847E-20	7.251E-19	2.222E-17	3.889E-16	6.035E-15	5.727E-14
Th-228	Cm-244	1.000E+00	0.000E+00	5.173E-26	1.066E-23	2.621E-21	2.086E-19	9.199E-18	1.305E-16
Th-228	Pu-240	1.000E+00	0.000E+00	2.417E-21	1.633E-19	1.163E-17	3.116E-16	5.680E-15	5.610E-14
Th-228	ΣS(j):		0.000E+00	2.417E-21	1.633E-19	1.164E-17	3.118E-16	5.689E-15	5.623E-14
Co-58	Co-58	1.000E+00	1.000E+00	2.796E-02	2.185E-05	2.917E-16	0.000E+00	0.000E+00	0.000E+00
Co-60	Co-60	1.000E+00	1.000E+00	8.757E-01	6.716E-01	2.652E-01	1.866E-02	1.723E-06	5.112E-18
Cs-134	Cs-134	1.000E+00	1.000E+00	7.143E-01	3.645E-01	3.458E-02	4.136E-05	2.447E-15	1.401E-44
Cs-137	Cs-137	1.000E+00	1.000E+00	9.769E-01	9.322E-01	7.914E-01	4.957E-01	9.641E-02	8.962E-04
Eu-152	Eu-152	7.208E-01	7.208E-01	6.839E-01	6.158E-01	4.265E-01	1.493E-01	3.791E-03	1.049E-07
Eu-152	Eu-152	2.792E-01	2.792E-01	2.649E-01	2.385E-01	1.652E-01	5.784E-02	1.468E-03	4.062E-08
Eu-152	ΣS(j):		1.000E+00	9.489E-01	8.543E-01	5.917E-01	2.072E-01	5.260E-03	1.455E-07
Gd-152	Eu-152	2.792E-01	0.000E+00	1.746E-15	4.974E-15	1.394E-14	2.705E-14	3.382E-14	3.363E-14
Eu-154	Eu-154	1.000E+00	1.000E+00	9.238E-01	7.884E-01	4.527E-01	9.280E-02	3.618E-04	4.735E-11
Eu-155	Eu-155	1.000E+00	1.000E+00	8.692E-01	6.566E-01	2.460E-01	1.489E-02	8.130E-07	5.374E-19
Fe-55	Fe-55	1.000E+00	1.000E+00	7.735E-01	4.627E-01	7.664E-02	4.502E-04	6.992E-12	3.419E-34

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\BFM INSITU DSR\FCS BFM INSITU SCENARIO 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
H-3	H-3	1.000E+00	1.000E+00	8.291E-01	5.699E-01	1.534E-01	3.611E-03	7.225E-09	0.000E+00	0.000E+00
Ni-59	Ni-59	1.000E+00	1.000E+00	9.984E-01	9.951E-01	9.838E-01	9.522E-01	8.493E-01	6.127E-01	1.953E-01
Ni-63	Ni-63	1.000E+00	1.000E+00	9.912E-01	9.738E-01	9.154E-01	7.670E-01	4.130E-01	7.042E-02	1.442E-04
Pu-238	Pu-238	1.840E-09	1.840E-09	1.825E-09	1.795E-09	1.695E-09	1.439E-09	8.112E-10	1.577E-10	5.105E-13
Pu-238	Pu-238	1.000E+00	1.000E+00	9.918E-01	9.757E-01	9.214E-01	7.822E-01	4.409E-01	8.569E-02	2.774E-04
Pu-238	ΣS(j):		1.000E+00	9.918E-01	9.757E-01	9.214E-01	7.822E-01	4.409E-01	8.569E-02	2.774E-04
U-234	Pu-238	1.000E+00	0.000E+00	2.823E-06	8.396E-06	2.716E-05	7.492E-05	1.891E-04	2.908E-04	2.410E-04
Th-230	Pu-238	1.000E+00	0.000E+00	1.272E-11	1.138E-10	1.240E-09	1.055E-08	9.718E-08	5.547E-07	2.209E-06
Ra-226	Pu-238	1.000E+00	0.000E+00	1.838E-15	4.941E-14	1.801E-12	4.651E-11	1.483E-09	2.750E-08	4.011E-07
Pb-210	Pu-238	1.000E+00	0.000E+00	1.420E-17	1.132E-15	1.322E-13	9.195E-12	7.078E-10	2.110E-08	3.743E-07
Po-210	Pu-238	1.000E+00	0.000E+00	3.952E-18	6.249E-16	1.079E-13	8.591E-12	6.947E-10	2.099E-08	3.738E-07
Pu-240	Pu-240	1.000E+00	1.000E+00	9.996E-01	9.988E-01	9.960E-01	9.882E-01	9.612E-01	8.880E-01	6.731E-01
Pu-241	Pu-241	1.000E+00	1.000E+00	9.527E-01	8.648E-01	6.161E-01	2.339E-01	7.887E-03	4.906E-07	9.316E-22
Pu-241	Pu-241	2.450E-05	2.450E-05	2.334E-05	2.119E-05	1.510E-05	5.731E-06	1.932E-07	1.202E-11	2.282E-26
Pu-241	ΣS(j):		1.000E+00	9.527E-01	8.648E-01	6.162E-01	2.339E-01	7.887E-03	4.906E-07	9.316E-22
Sb-125	Sb-125	7.720E-01	7.720E-01	5.960E-01	3.553E-01	5.811E-02	3.292E-04	4.506E-12	1.535E-34	0.000E+00
Sb-125	Sb-125	2.280E-01	2.280E-01	1.760E-01	1.049E-01	1.716E-02	9.723E-05	1.331E-12	4.534E-35	0.000E+00
Sb-125	ΣS(j):		1.000E+00	7.721E-01	4.602E-01	7.527E-02	4.264E-04	5.837E-12	1.989E-34	0.000E+00
Te-125m	Sb-125	2.280E-01	0.000E+00	1.840E-01	1.115E-01	1.824E-02	1.033E-04	1.414E-12	4.818E-35	0.000E+00
Sr-90	Sr-90	1.000E+00	1.000E+00	9.701E-01	9.128E-01	7.379E-01	4.018E-01	4.785E-02	1.096E-04	6.293E-14
Tc-99	Tc-99	1.000E+00	1.000E+00	8.684E-01	6.548E-01	2.438E-01	1.449E-02	7.409E-07	4.067E-19	0.000E+00

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

RESRAD.EXE execution time = 163.01 seconds

Total water/soil iteration failures = 6.000E+01.