

Summary : RESRAD Default Parameters

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Table of Contents

Part I: Mixture Sums and Single Radionuclide Guidelines

Dose Conversion Factor (and Related) Parameter Summary ...	2
Site-Specific Parameter Summary	12
Summary of Pathway Selections	22
Contaminated Zone and Total Dose Summary	23
Total Dose Components	
Time = 0.000E+00	24
Time = 1.000E+00	26
Time = 3.000E+00	28
Time = 1.000E+01	30
Time = 3.000E+01	32
Time = 1.000E+02	34
Time = 3.000E+02	36
Time = 1.000E+03	38
Dose/Source Ratios Summed Over All Pathways	40
Single Radionuclide Soil Guidelines	43
Dose Per Nuclide Summed Over All Pathways	45
Soil Concentration Per Nuclide	48

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	C14GInhDCF
B-1	Ce-144+D	3.740E-04	3.740E-04	DCF2 (5)
B-1	Cm-243	3.070E-01	3.070E-01	DCF2 (6)
B-1	Cm-244	2.480E-01	2.480E-01	DCF2 (8)
B-1	Co-58	1.090E-05	1.090E-05	DCF2 (11)
B-1	Co-60	2.190E-04	2.190E-04	DCF2 (12)
B-1	Cs-134	4.620E-05	4.620E-05	DCF2 (13)
B-1	Cs-137+D	3.190E-05	3.190E-05	DCF2 (14)
B-1	Eu-152	2.210E-04	2.210E-04	DCF2 (15)
B-1	Eu-154	2.860E-04	2.860E-04	DCF2 (17)
B-1	Eu-155	4.140E-05	4.140E-05	DCF2 (18)

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)

Summary : RESRAD Default Parameters

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

Dose Library: FCS FGR11 Plus FGR 11

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

#For DCF1(xxx) only, factors are for infinite depth & area. See 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)	4.630E+00	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.500E-01	2.000E+00	---	THICK0
R011	Fraction of contamination that is submerged	0.000E+00	0.000E+00	---	SUBMFRACT
R011	Length parallel to aquifer flow (m)	2.150E+00	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	0.000E+00	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T (2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T (3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T (4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T (5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T (6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T (7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T (8)
R011	Times for calculations (yr)	not used	0.000E+00	---	T (9)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(10)
R012	Initial principal radionuclide (pCi/g): Am-241	1.000E+00	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): C-14	1.000E+00	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ce-144	1.000E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Cm-243	1.000E+00	0.000E+00	---	S1(6)
R012	Initial principal radionuclide (pCi/g): Cm-244	1.000E+00	0.000E+00	---	S1(8)
R012	Initial principal radionuclide (pCi/g): Co-58	1.000E+00	0.000E+00	---	S1(11)
R012	Initial principal radionuclide (pCi/g): Co-60	1.000E+00	0.000E+00	---	S1(12)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.000E+00	0.000E+00	---	S1(13)
R012	Initial principal radionuclide (pCi/g): Cs-137	1.000E+00	0.000E+00	---	S1(14)
R012	Initial principal radionuclide (pCi/g): Eu-152	1.000E+00	0.000E+00	---	S1(15)
R012	Initial principal radionuclide (pCi/g): Eu-154	1.000E+00	0.000E+00	---	S1(17)
R012	Initial principal radionuclide (pCi/g): Eu-155	1.000E+00	0.000E+00	---	S1(18)
R012	Initial principal radionuclide (pCi/g): Fe-55	1.000E+00	0.000E+00	---	S1(19)
R012	Initial principal radionuclide (pCi/g): H-3	1.000E+00	0.000E+00	---	S1(21)
R012	Initial principal radionuclide (pCi/g): Ni-59	1.000E+00	0.000E+00	---	S1(22)
R012	Initial principal radionuclide (pCi/g): Ni-63	1.000E+00	0.000E+00	---	S1(23)
R012	Initial principal radionuclide (pCi/g): Np-237	1.000E+00	0.000E+00	---	S1(24)
R012	Initial principal radionuclide (pCi/g): Pu-238	1.000E+00	0.000E+00	---	S1(28)
R012	Initial principal radionuclide (pCi/g): Pu-239	1.000E+00	0.000E+00	---	S1(30)
R012	Initial principal radionuclide (pCi/g): Pu-240	1.000E+00	0.000E+00	---	S1(31)
R012	Initial principal radionuclide (pCi/g): Pu-241	1.000E+00	0.000E+00	---	S1(33)
R012	Initial principal radionuclide (pCi/g): Sb-125	1.000E+00	0.000E+00	---	S1(37)
R012	Initial principal radionuclide (pCi/g): Sr-90	1.000E+00	0.000E+00	---	S1(39)
R012	Initial principal radionuclide (pCi/g): Tc-99	1.000E+00	0.000E+00	---	S1(40)
R012	Concentration in groundwater (pCi/L): Am-241	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ce-144	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Cm-243	not used	0.000E+00	---	W1(6)
R012	Concentration in groundwater (pCi/L): Cm-244	not used	0.000E+00	---	W1(8)
R012	Concentration in groundwater (pCi/L): Co-58	not used	0.000E+00	---	W1(11)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(12)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(13)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(14)
R012	Concentration in groundwater (pCi/L): Eu-152	not used	0.000E+00	---	W1(15)

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

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

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R015	Unsat. zone 1, thickness (m)	1.000E-01	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	4.300E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	1.600E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.800E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	3.600E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	3.440E+01	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for Am-241				
R016	Contaminated zone (cm**3/g)	1.250E+03	2.000E+01	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	1.250E+03	2.000E+01	---	DCNUCU(2,1)
R016	Saturated zone (cm**3/g)	2.690E+02	2.000E+01	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.178E-04	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	9.670E+01	0.000E+00	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	9.670E+01	0.000E+00	---	DCNUCU(4,1)
R016	Saturated zone (cm**3/g)	1.100E+01	0.000E+00	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.810E-03	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ce-144				
R016	Contaminated zone (cm**3/g)	3.010E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	3.010E+03	1.000E+03	---	DCNUCU(5,1)
R016	Saturated zone (cm**3/g)	3.990E+02	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	9.044E-05	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Cm-243				
R016	Contaminated zone (cm**3/g)	1.900E+04	-1.000E+00	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	1.900E+04	-1.000E+00	---	DCNUCU(6,1)
R016	Saturated zone (cm**3/g)	3.390E+03	-1.000E+00	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.433E-05	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R016	Distribution coefficients for Cm-244				
R016	Contaminated zone (cm**3/g)	1.900E+04	-1.000E+00	---	DCNUCC(8)
R016	Unsaturated zone 1 (cm**3/g)	1.900E+04	-1.000E+00	---	DCNUCU(8,1)
R016	Saturated zone (cm**3/g)	3.390E+03	-1.000E+00	---	DCNUCS(8)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.433E-05	ALEACH(8)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(8)
R016	Distribution coefficients for Co-58				
R016	Contaminated zone (cm**3/g)	5.050E+03	1.000E+03	---	DCNUCC(11)
R016	Unsaturated zone 1 (cm**3/g)	5.050E+03	1.000E+03	---	DCNUCU(11,1)
R016	Saturated zone (cm**3/g)	2.600E+02	1.000E+03	---	DCNUCS(11)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.391E-05	ALEACH(11)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(11)

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS DSR.RAD

Site-Specific Parameter Summary (continued)

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

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS DSR.RAD

Site-Specific Parameter Summary (continued)

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

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Pu-241				
R016	Contaminated zone (cm**3/g)	9.530E+02	2.000E+03	---	DCNUCC (33)
R016	Unsaturated zone 1 (cm**3/g)	9.530E+02	2.000E+03	---	DCNUCU (33,1)
R016	Saturated zone (cm**3/g)	3.990E+02	2.000E+03	---	DCNUCS (33)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.856E-04	ALEACH (33)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (33)
R016	Distribution coefficients for Sb-125				
R016	Contaminated zone (cm**3/g)	1.280E+02	0.000E+00	---	DCNUCC (37)
R016	Unsaturated zone 1 (cm**3/g)	1.280E+02	0.000E+00	---	DCNUCU (37,1)
R016	Saturated zone (cm**3/g)	1.690E+01	0.000E+00	---	DCNUCS (37)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.124E-03	ALEACH (37)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (37)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	1.680E+02	3.000E+01	---	DCNUCC (39)
R016	Unsaturated zone 1 (cm**3/g)	1.680E+02	3.000E+01	---	DCNUCU (39,1)
R016	Saturated zone (cm**3/g)	2.200E+01	3.000E+01	---	DCNUCS (39)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.619E-03	ALEACH (39)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (39)
R016	Distribution coefficients for Tc-99				
R016	Contaminated zone (cm**3/g)	1.470E-01	0.000E+00	---	DCNUCC (40)
R016	Unsaturated zone 1 (cm**3/g)	1.470E-01	0.000E+00	---	DCNUCU (40,1)
R016	Saturated zone (cm**3/g)	4.000E-01	0.000E+00	---	DCNUCS (40)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.159E-01	ALEACH (40)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (40)
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	8.290E+02	2.000E+01	---	DCNUCC (1)
R016	Unsaturated zone 1 (cm**3/g)	8.290E+02	2.000E+01	---	DCNUCU (1,1)
R016	Saturated zone (cm**3/g)	8.290E+02	2.000E+01	---	DCNUCS (1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.283E-04	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)	4.190E+03	2.000E+01	---	DCNUCC (3)
R016	Unsaturated zone 1 (cm**3/g)	4.190E+03	2.000E+01	---	DCNUCU (3,1)
R016	Saturated zone (cm**3/g)	1.000E+03	2.000E+01	---	DCNUCS (3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.497E-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	Unsaturated zone 1 (cm**3/g)	8.290E+02	-1.000E+00	---	DCNUCU (20,1)
R016	Saturated zone (cm**3/g)	8.290E+02	-1.000E+00	---	DCNUCS (20)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.283E-04	ALEACH (20)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (20)

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS DSR.RAD

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for daughter Pa-231				
R016	Contaminated zone (cm**3/g)	3.800E+02	5.000E+01	---	DCNUCC (25)
R016	Unsaturated zone 1 (cm**3/g)	3.800E+02	5.000E+01	---	DCNUCU (25,1)
R016	Saturated zone (cm**3/g)	3.800E+02	5.000E+01	---	DCNUCS (25)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.161E-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)	1.000E+04	1.000E+02	---	DCNUCC (26)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+04	1.000E+02	---	DCNUCU (26,1)
R016	Saturated zone (cm**3/g)	2.190E+02	1.000E+02	---	DCNUCS (26)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.722E-05	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)	2.300E+02	1.000E+01	---	DCNUCC (27)
R016	Unsaturated zone 1 (cm**3/g)	2.300E+02	1.000E+01	---	DCNUCU (27,1)
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+01	---	DCNUCS (27)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.183E-03	ALEACH (27)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (27)
R016	Distribution coefficients for daughter Ra-226				
R016	Contaminated zone (cm**3/g)	7.130E+02	7.000E+01	---	DCNUCC (35)
R016	Unsaturated zone 1 (cm**3/g)	7.130E+02	7.000E+01	---	DCNUCU (35,1)
R016	Saturated zone (cm**3/g)	3.100E+03	7.000E+01	---	DCNUCS (35)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.817E-04	ALEACH (35)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (35)
R016	Distribution coefficients for daughter Ra-228				
R016	Contaminated zone (cm**3/g)	7.130E+02	7.000E+01	---	DCNUCC (36)
R016	Unsaturated zone 1 (cm**3/g)	7.130E+02	7.000E+01	---	DCNUCU (36,1)
R016	Saturated zone (cm**3/g)	3.100E+03	7.000E+01	---	DCNUCS (36)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.817E-04	ALEACH (36)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (36)
R016	Distribution coefficients for daughter Te-125m				
R016	Contaminated zone (cm**3/g)	3.810E+02	0.000E+00	---	DCNUCC (41)
R016	Unsaturated zone 1 (cm**3/g)	3.810E+01	0.000E+00	---	DCNUCU (41,1)
R016	Saturated zone (cm**3/g)	3.810E+01	0.000E+00	---	DCNUCS (41)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.142E-04	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)	1.800E+04	6.000E+04	---	DCNUCC (42)
R016	Unsaturated zone 1 (cm**3/g)	1.800E+04	6.000E+04	---	DCNUCU (42,1)
R016	Saturated zone (cm**3/g)	6.990E+02	6.000E+04	---	DCNUCS (42)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.512E-05	ALEACH (42)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (42)

RESRAD-ONSITE, Version 7.2

T_{1/2} Limit = 30 days

06/05/2021 12:50 Page 19

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS DSR.RAD

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for daughter Th-229				
R016	Contaminated zone (cm**3/g)	1.800E+04	6.000E+04	---	DCNUCC (43)
R016	Unsaturated zone 1 (cm**3/g)	1.800E+04	6.000E+04	---	DCNUCU (43,1)
R016	Saturated zone (cm**3/g)	6.990E+02	6.000E+04	---	DCNUCS (43)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.512E-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)	1.800E+04	6.000E+04	---	DCNUCC (44)
R016	Unsaturated zone 1 (cm**3/g)	1.800E+04	6.000E+04	---	DCNUCU (44,1)
R016	Saturated zone (cm**3/g)	6.990E+02	6.000E+04	---	DCNUCS (44)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.512E-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)	1.800E+04	6.000E+04	---	DCNUCC (45)
R016	Unsaturated zone 1 (cm**3/g)	1.800E+04	6.000E+04	---	DCNUCU (45,1)
R016	Saturated zone (cm**3/g)	6.990E+02	6.000E+04	---	DCNUCS (45)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.512E-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)	3.110E+02	5.000E+01	---	DCNUCC (46)
R016	Unsaturated zone 1 (cm**3/g)	3.110E+02	5.000E+01	---	DCNUCU (46,1)
R016	Saturated zone (cm**3/g)	1.100E+02	5.000E+01	---	DCNUCS (46)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.749E-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)	3.110E+02	5.000E+01	---	DCNUCC (47)
R016	Unsaturated zone 1 (cm**3/g)	3.110E+02	5.000E+01	---	DCNUCU (47,1)
R016	Saturated zone (cm**3/g)	1.100E+02	5.000E+01	---	DCNUCS (47)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.749E-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)	3.110E+02	5.000E+01	---	DCNUCC (48)
R016	Unsaturated zone 1 (cm**3/g)	3.110E+02	5.000E+01	---	DCNUCU (48,1)
R016	Saturated zone (cm**3/g)	1.100E+02	5.000E+01	---	DCNUCS (48)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.749E-04	ALEACH (48)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK (48)
R016	Distribution coefficients for daughter U-236				
R016	Contaminated zone (cm**3/g)	3.110E+02	5.000E+01	---	DCNUCC (49)
R016	Unsaturated zone 1 (cm**3/g)	3.110E+02	5.000E+01	---	DCNUCU (49,1)
R016	Saturated zone (cm**3/g)	1.100E+02	5.000E+01	---	DCNUCS (49)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.749E-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

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Mass loading for inhalation (g/m**3)	2.870E-05	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	7.500E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	5.520E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	6.600E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.200E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	not used	5.000E+01	---	RAD_SHAPE(1)
R017	Outer annular radius (m), ring 2:	not used	7.071E+01	---	RAD_SHAPE(2)
R017	Outer annular radius (m), ring 3:	not used	0.000E+00	---	RAD_SHAPE(3)
R017	Outer annular radius (m), ring 4:	not used	0.000E+00	---	RAD_SHAPE(4)
R017	Outer annular radius (m), ring 5:	not used	0.000E+00	---	RAD_SHAPE(5)
R017	Outer annular radius (m), ring 6:	not used	0.000E+00	---	RAD_SHAPE(6)
R017	Outer annular radius (m), ring 7:	not used	0.000E+00	---	RAD_SHAPE(7)
R017	Outer annular radius (m), ring 8:	not used	0.000E+00	---	RAD_SHAPE(8)
R017	Outer annular radius (m), ring 9:	not used	0.000E+00	---	RAD_SHAPE(9)
R017	Outer annular radius (m), ring 10:	not used	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	not used	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	not used	0.000E+00	---	RAD_SHAPE(12)
R017	Fractions of annular areas within AREA:				
R017	Ring 1	not used	1.000E+00	---	FRACA(1)
R017	Ring 2	not used	2.732E-01	---	FRACA(2)
R017	Ring 3	not used	0.000E+00	---	FRACA(3)
R017	Ring 4	not used	0.000E+00	---	FRACA(4)
R017	Ring 5	not used	0.000E+00	---	FRACA(5)
R017	Ring 6	not used	0.000E+00	---	FRACA(6)
R017	Ring 7	not used	0.000E+00	---	FRACA(7)
R017	Ring 8	not used	0.000E+00	---	FRACA(8)
R017	Ring 9	not used	0.000E+00	---	FRACA(9)
R017	Ring 10	not used	0.000E+00	---	FRACA(10)
R017	Ring 11	not used	0.000E+00	---	FRACA(11)
R017	Ring 12	not used	0.000E+00	---	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	2.240E+02	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	4.280E+01	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	2.330E+02	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	6.510E+01	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	not used	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	not used	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	1.830E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	4.780E+02	5.100E+02	---	DWI
R018	Contamination fraction of drinking water	1.000E+00	1.000E+00	---	FDW
R018	Contamination fraction of household water	not used	1.000E+00	---	FHHW
R018	Contamination fraction of livestock water	1.000E+00	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	1.000E+00	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	-1	-1	0.232E-02	FPLANT
R018	Contamination fraction of meat	-1	-1	0.232E-03	FMEAT

Summary : RESRAD Default Parameters

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Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R018	Contamination fraction of milk	-1	-1	0.232E-03	FMILK
R019	Livestock fodder intake for meat (kg/day)	2.710E+01	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	6.321E+01	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	5.060E+01	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	6.000E+01	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	7.000E-01	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	4.000E-04	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	2.300E-01	1.500E-01	---	DM
R019	Depth of roots (m)	1.230E+00	9.000E-01	---	DROOT
R019	Drinking water fraction from ground water	1.000E+00	1.000E+00	---	FGWDW
R019	Household water fraction from ground water	not used	1.000E+00	---	FGWHH
R019	Livestock water fraction from ground water	1.000E+00	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	1.000E+00	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	1.750E+00	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	2.890E+00	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	1.890E+00	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	2.460E-01	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	1.230E-01	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	8.200E-02	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	1.000E-01	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	1.000E+00	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	1.000E+00	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	3.500E-01	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	3.500E-01	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	3.500E-01	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	3.500E-01	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	5.800E-01	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	3.500E-01	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	3.300E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	2.000E-05	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	3.000E-02	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	2.000E-02	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	9.800E-01	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	3.000E-01	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	7.000E-07	7.000E-07	---	EVSN
C14	C-12 evasion flux rate from soil (1/sec)	1.000E-10	1.000E-10	---	REVSN
C14	Fraction of grain in beef cattle feed	9.000E-02	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	3.000E-02	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS DSR.RAD

Site-Specific Parameter Summary (continued)

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

Summary of Pathway Selections

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

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS DSR.RAD

Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
Area:	4.63 square meters	Am-241	1.000E+00
Thickness:	0.15 meters	C-14	1.000E+00
Cover Depth:	0.00 meters	Ce-144	1.000E+00
		Cm-243	1.000E+00
		Cm-244	1.000E+00
		Co-58	1.000E+00
		Co-60	1.000E+00
		Cs-134	1.000E+00
		Cs-137	1.000E+00
		Eu-152	1.000E+00
		Eu-154	1.000E+00
		Eu-155	1.000E+00
		Fe-55	1.000E+00
		H-3	1.000E+00
		Ni-59	1.000E+00
		Ni-63	1.000E+00
		Np-237	1.000E+00
		Pu-238	1.000E+00
		Pu-239	1.000E+00
		Pu-240	1.000E+00
		Pu-241	1.000E+00
		Sb-125	1.000E+00
		Sr-90	1.000E+00
		Tc-99	1.000E+00

Total Dose TDOSE(t), mrem/yr

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

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

t (years):	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	5.212E+00	4.369E+00	3.395E+00	1.759E+00	5.280E-01	4.671E-02	2.304E-08	1.154E-04
M(t):	2.085E-01	1.747E-01	1.358E-01	7.034E-02	2.112E-02	1.869E-03	9.214E-10	4.616E-06

Maximum TDOSE(t): 5.212E+00 mrem/yr at t = 0.000E+00 years

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS DSR.RAD

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

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

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	7.053E-03	0.0014	2.573E-03	0.0005	0.000E+00	0.0000	5.013E-04	0.0001	1.452E-06	0.0000	3.003E-07	0.0000	1.563E-04	0.0000
C-14	1.009E-07	0.0000	1.882E-07	0.0000	0.000E+00	0.0000	7.979E-06	0.0000	3.998E-07	0.0000	2.264E-07	0.0000	4.138E-09	0.0000
Ce-144	2.448E-02	0.0047	1.437E-06	0.0000	0.000E+00	0.0000	4.145E-06	0.0000	3.743E-09	0.0000	1.774E-08	0.0000	6.012E-07	0.0000
Cm-243	7.878E-02	0.0151	1.759E-03	0.0003	0.000E+00	0.0000	3.418E-04	0.0001	7.038E-07	0.0000	2.387E-07	0.0000	1.066E-04	0.0000
Cm-244	2.486E-05	0.0000	1.411E-03	0.0003	0.000E+00	0.0000	2.732E-04	0.0001	5.626E-07	0.0000	1.908E-07	0.0000	8.521E-05	0.0000
Co-58	1.838E-01	0.0353	1.720E-08	0.0000	0.000E+00	0.0000	1.070E-05	0.0000	8.230E-07	0.0000	2.672E-07	0.0000	4.189E-08	0.0000
Co-60	1.595E+00	0.3059	1.190E-06	0.0000	0.000E+00	0.0000	2.765E-04	0.0001	2.129E-05	0.0000	6.912E-06	0.0000	1.084E-06	0.0000
Cs-134	9.200E-01	0.1765	2.276E-07	0.0000	0.000E+00	0.0000	3.663E-04	0.0001	4.394E-05	0.0000	4.867E-05	0.0000	2.677E-06	0.0000
Cs-137	3.879E-01	0.0744	1.829E-07	0.0000	0.000E+00	0.0000	2.908E-04	0.0001	3.488E-05	0.0000	3.864E-05	0.0000	2.125E-06	0.0000
Eu-152	7.499E-01	0.1439	1.249E-06	0.0000	0.000E+00	0.0000	2.000E-06	0.0000	1.796E-07	0.0000	1.861E-08	0.0000	2.715E-07	0.0000
Eu-154	7.990E-01	0.1533	1.595E-06	0.0000	0.000E+00	0.0000	2.908E-06	0.0000	2.612E-07	0.0000	2.707E-08	0.0000	3.948E-07	0.0000
Eu-155	2.599E-02	0.0050	2.241E-07	0.0000	0.000E+00	0.0000	4.522E-07	0.0000	4.061E-08	0.0000	4.209E-09	0.0000	6.139E-08	0.0000
Fe-55	0.000E+00	0.0000	1.376E-08	0.0000	0.000E+00	0.0000	7.379E-08	0.0000	1.467E-07	0.0000	6.482E-09	0.0000	2.301E-08	0.0000
H-3	0.000E+00	0.0000	5.711E-07	0.0000	0.000E+00	0.0000	3.476E-06	0.0000	3.049E-08	0.0000	2.019E-07	0.0000	5.256E-10	0.0000
Ni-59	0.000E+00	0.0000	1.565E-08	0.0000	0.000E+00	0.0000	1.440E-06	0.0000	2.216E-08	0.0000	4.181E-07	0.0000	9.021E-09	0.0000
Ni-63	0.000E+00	0.0000	3.634E-08	0.0000	0.000E+00	0.0000	3.943E-06	0.0000	6.070E-08	0.0000	1.145E-06	0.0000	2.471E-08	0.0000
Np-237	1.414E-01	0.0271	3.086E-03	0.0006	0.000E+00	0.0000	1.209E-02	0.0023	6.063E-05	0.0000	2.809E-06	0.0000	1.883E-04	0.0000
Pu-238	2.879E-05	0.0000	2.264E-03	0.0004	0.000E+00	0.0000	4.393E-04	0.0001	2.527E-06	0.0000	1.122E-07	0.0000	1.370E-04	0.0000
Pu-239	4.177E-05	0.0000	2.487E-03	0.0005	0.000E+00	0.0000	4.879E-04	0.0001	2.807E-06	0.0000	1.246E-07	0.0000	1.522E-04	0.0000
Pu-240	2.694E-05	0.0000	2.487E-03	0.0005	0.000E+00	0.0000	4.878E-04	0.0001	2.807E-06	0.0000	1.246E-07	0.0000	1.522E-04	0.0000
Pu-241	8.200E-06	0.0000	4.873E-05	0.0000	0.000E+00	0.0000	9.599E-06	0.0000	5.420E-08	0.0000	2.587E-09	0.0000	2.994E-06	0.0000
Sb-125	2.556E-01	0.0490	6.926E-08	0.0000	0.000E+00	0.0000	2.639E-05	0.0000	1.117E-07	0.0000	5.683E-08	0.0000	1.319E-07	0.0000
Sr-90	2.908E-03	0.0006	7.492E-06	0.0000	0.000E+00	0.0000	6.689E-03	0.0013	7.156E-05	0.0000	1.122E-04	0.0000	6.486E-06	0.0000
Tc-99	1.280E-05	0.0000	3.299E-08	0.0000	0.000E+00	0.0000	7.028E-04	0.0001	8.253E-08	0.0000	6.601E-06	0.0000	4.292E-08	0.0000
Total	5.171E+00	0.9922	1.613E-02	0.0031	0.000E+00	0.0000	2.302E-02	0.0044	2.454E-04	0.0000	2.193E-04	0.0000	9.947E-04	0.0002

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS 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	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.028E-02	0.0020
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	8.899E-06	0.0000
Ce-144	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.448E-02	0.0047
Cm-243	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.099E-02	0.0155
Cm-244	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.795E-03	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	1.838E-01	0.0353
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.595E+00	0.3060
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	9.205E-01	0.1766
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.883E-01	0.0745
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.499E-01	0.1439
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	7.990E-01	0.1533
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	2.599E-02	0.0050
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.638E-07	0.0000
H-3	1.517E-06	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.138E-09	0.0000	2.236E-11	0.0000	1.008E-10	0.0000	5.798E-06	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.905E-06	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.210E-06	0.0000
Np-237	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.568E-01	0.0301
Pu-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.872E-03	0.0006
Pu-239	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.172E-03	0.0006
Pu-240	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.157E-03	0.0006
Pu-241	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.958E-05	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	2.556E-01	0.0490
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.795E-03	0.0019
Tc-99	5.794E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.168E-08	0.0000	2.154E-11	0.0000	1.363E-09	0.0000	7.804E-04	0.0001
Total	5.946E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.282E-08	0.0000	4.390E-11	0.0000	1.464E-09	0.0000	5.212E+00	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS DSR.RAD

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

As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	7.037E-03	0.0016	2.555E-03	0.0006	0.000E+00	0.0000	4.978E-04	0.0001	1.442E-06	0.0000	2.982E-07	0.0000	1.553E-04	0.0000
C-14	2.488E-17	0.0000	4.618E-17	0.0000	0.000E+00	0.0000	4.928E-15	0.0000	1.650E-15	0.0000	5.302E-16	0.0000	1.016E-18	0.0000
Ce-144	1.001E-02	0.0023	5.866E-07	0.0000	0.000E+00	0.0000	1.693E-06	0.0000	1.528E-09	0.0000	7.243E-09	0.0000	2.455E-07	0.0000
Cm-243	7.665E-02	0.0175	1.708E-03	0.0004	0.000E+00	0.0000	3.319E-04	0.0001	6.835E-07	0.0000	2.318E-07	0.0000	1.035E-04	0.0000
Cm-244	2.393E-05	0.0000	1.352E-03	0.0003	0.000E+00	0.0000	2.617E-04	0.0001	5.391E-07	0.0000	1.827E-07	0.0000	8.161E-05	0.0000
Co-58	5.126E-03	0.0012	4.791E-10	0.0000	0.000E+00	0.0000	2.981E-07	0.0000	2.293E-08	0.0000	7.442E-09	0.0000	1.167E-09	0.0000
Co-60	1.393E+00	0.3188	1.038E-06	0.0000	0.000E+00	0.0000	2.412E-04	0.0001	1.857E-05	0.0000	6.030E-06	0.0000	9.453E-07	0.0000
Cs-134	6.550E-01	0.1499	1.618E-07	0.0000	0.000E+00	0.0000	2.604E-04	0.0001	3.124E-05	0.0000	3.460E-05	0.0000	1.903E-06	0.0000
Cs-137	3.777E-01	0.0865	1.778E-07	0.0000	0.000E+00	0.0000	2.827E-04	0.0001	3.391E-05	0.0000	3.756E-05	0.0000	2.066E-06	0.0000
Eu-152	7.092E-01	0.1623	1.180E-06	0.0000	0.000E+00	0.0000	1.889E-06	0.0000	1.696E-07	0.0000	1.758E-08	0.0000	2.564E-07	0.0000
Eu-154	7.358E-01	0.1684	1.467E-06	0.0000	0.000E+00	0.0000	2.674E-06	0.0000	2.402E-07	0.0000	2.489E-08	0.0000	3.631E-07	0.0000
Eu-155	2.255E-02	0.0052	1.939E-07	0.0000	0.000E+00	0.0000	3.912E-07	0.0000	3.514E-08	0.0000	3.641E-09	0.0000	5.311E-08	0.0000
Fe-55	0.000E+00	0.0000	1.059E-08	0.0000	0.000E+00	0.0000	5.678E-08	0.0000	1.129E-07	0.0000	4.987E-09	0.0000	1.771E-08	0.0000
H-3	0.000E+00	0.0000	3.088E-09	0.0000	0.000E+00	0.0000	2.056E-08	0.0000	2.425E-10	0.0000	1.466E-09	0.0000	2.842E-12	0.0000
Ni-59	0.000E+00	0.0000	1.554E-08	0.0000	0.000E+00	0.0000	1.430E-06	0.0000	2.202E-08	0.0000	4.154E-07	0.0000	8.962E-09	0.0000
Ni-63	0.000E+00	0.0000	3.587E-08	0.0000	0.000E+00	0.0000	3.893E-06	0.0000	5.994E-08	0.0000	1.131E-06	0.0000	2.440E-08	0.0000
Np-237	1.369E-01	0.0313	2.981E-03	0.0007	0.000E+00	0.0000	1.168E-02	0.0027	5.859E-05	0.0000	2.715E-06	0.0000	1.819E-04	0.0000
Pu-238	2.855E-05	0.0000	2.234E-03	0.0005	0.000E+00	0.0000	4.335E-04	0.0001	2.494E-06	0.0000	1.108E-07	0.0000	1.352E-04	0.0000
Pu-239	4.166E-05	0.0000	2.474E-03	0.0006	0.000E+00	0.0000	4.852E-04	0.0001	2.792E-06	0.0000	1.240E-07	0.0000	1.513E-04	0.0000
Pu-240	2.692E-05	0.0000	2.474E-03	0.0006	0.000E+00	0.0000	4.852E-04	0.0001	2.792E-06	0.0000	1.239E-07	0.0000	1.513E-04	0.0000
Pu-241	1.883E-05	0.0000	5.020E-05	0.0000	0.000E+00	0.0000	9.879E-06	0.0000	5.366E-08	0.0000	2.920E-09	0.0000	3.081E-06	0.0000
Sb-125	1.980E-01	0.0453	5.530E-08	0.0000	0.000E+00	0.0000	2.677E-05	0.0000	1.145E-07	0.0000	6.004E-08	0.0000	1.085E-07	0.0000
Sr-90	2.827E-03	0.0006	7.267E-06	0.0000	0.000E+00	0.0000	6.488E-03	0.0015	6.942E-05	0.0000	1.088E-04	0.0000	6.292E-06	0.0000
Tc-99	5.647E-06	0.0000	1.452E-08	0.0000	0.000E+00	0.0000	3.109E-04	0.0001	3.733E-08	0.0000	2.963E-06	0.0000	1.889E-08	0.0000
Total	4.330E+00	0.9911	1.584E-02	0.0036	0.000E+00	0.0000	2.181E-02	0.0050	2.233E-04	0.0001	1.955E-04	0.0000	9.755E-04	0.0002

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS 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	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.025E-02	0.0023
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	7.180E-15	0.0000
Ce-144	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.001E-02	0.0023
Cm-243	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.880E-02	0.0180
Cm-244	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.719E-03	0.0004
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.126E-03	0.0012
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.393E+00	0.3189
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	6.553E-01	0.1500
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.781E-01	0.0865
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.092E-01	0.1623
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	7.358E-01	0.1684
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	2.255E-02	0.0052
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.030E-07	0.0000
H-3	3.767E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.395E-11	0.0000	8.129E-13	0.0000	2.997E-12	0.0000	6.307E-08	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.892E-06	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.144E-06	0.0000
Np-237	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.518E-01	0.0347
Pu-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.834E-03	0.0006
Pu-239	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.155E-03	0.0007
Pu-240	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.140E-03	0.0007
Pu-241	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.204E-05	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	1.980E-01	0.0453
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.507E-03	0.0022
Tc-99	5.643E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.593E-08	0.0000	2.734E-11	0.0000	1.598E-09	0.0000	3.761E-04	0.0001
Total	5.647E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.597E-08	0.0000	2.816E-11	0.0000	1.601E-09	0.0000	4.369E+00	1.0000

*Sum of all water independent and dependent pathways.

RESRAD-ONSITE, Version 7.2

T½Limit = 30 days

06/05/2021 12:50 Page 28

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS 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	7.006E-03	0.0021	2.520E-03	0.0007	0.000E+00	0.0000	4.910E-04	0.0001	1.422E-06	0.0000	2.941E-07	0.0000	1.531E-04	0.0000
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ce-144	1.675E-03	0.0005	9.780E-08	0.0000	0.000E+00	0.0000	2.822E-07	0.0000	2.548E-10	0.0000	1.208E-09	0.0000	4.093E-08	0.0000
Cm-243	7.256E-02	0.0214	1.610E-03	0.0005	0.000E+00	0.0000	3.129E-04	0.0001	6.446E-07	0.0000	2.185E-07	0.0000	9.761E-05	0.0000
Cm-244	2.217E-05	0.0000	1.240E-03	0.0004	0.000E+00	0.0000	2.400E-04	0.0001	4.948E-07	0.0000	1.675E-07	0.0000	7.485E-05	0.0000
Co-58	3.987E-06	0.0000	3.715E-13	0.0000	0.000E+00	0.0000	2.312E-10	0.0000	1.778E-11	0.0000	5.771E-12	0.0000	9.046E-13	0.0000
Co-60	1.062E+00	0.3129	7.898E-07	0.0000	0.000E+00	0.0000	1.835E-04	0.0001	1.413E-05	0.0000	4.587E-06	0.0000	7.192E-07	0.0000
Cs-134	3.320E-01	0.0978	8.173E-08	0.0000	0.000E+00	0.0000	1.316E-04	0.0000	1.578E-05	0.0000	1.748E-05	0.0000	9.613E-07	0.0000
Cs-137	3.581E-01	0.1055	1.680E-07	0.0000	0.000E+00	0.0000	2.672E-04	0.0001	3.205E-05	0.0000	3.550E-05	0.0000	1.952E-06	0.0000
Eu-152	6.344E-01	0.1868	1.052E-06	0.0000	0.000E+00	0.0000	1.685E-06	0.0000	1.513E-07	0.0000	1.568E-08	0.0000	2.287E-07	0.0000
Eu-154	6.239E-01	0.1837	1.240E-06	0.0000	0.000E+00	0.0000	2.261E-06	0.0000	2.031E-07	0.0000	2.105E-08	0.0000	3.070E-07	0.0000
Eu-155	1.698E-02	0.0050	1.451E-07	0.0000	0.000E+00	0.0000	2.928E-07	0.0000	2.630E-08	0.0000	2.725E-09	0.0000	3.975E-08	0.0000
Fe-55	0.000E+00	0.0000	6.266E-09	0.0000	0.000E+00	0.0000	3.361E-08	0.0000	6.683E-08	0.0000	2.952E-09	0.0000	1.048E-08	0.0000
H-3	0.000E+00	0.0000	9.029E-14	0.0000	0.000E+00	0.0000	6.012E-13	0.0000	7.092E-15	0.0000	4.287E-14	0.0000	8.310E-17	0.0000
Ni-59	0.000E+00	0.0000	1.534E-08	0.0000	0.000E+00	0.0000	1.411E-06	0.0000	2.173E-08	0.0000	4.099E-07	0.0000	8.844E-09	0.0000
Ni-63	0.000E+00	0.0000	3.496E-08	0.0000	0.000E+00	0.0000	3.795E-06	0.0000	5.841E-08	0.0000	1.102E-06	0.0000	2.378E-08	0.0000
Np-237	1.282E-01	0.0378	2.782E-03	0.0008	0.000E+00	0.0000	1.090E-02	0.0032	5.467E-05	0.0000	2.533E-06	0.0000	1.697E-04	0.0000
Pu-238	2.808E-05	0.0000	2.176E-03	0.0006	0.000E+00	0.0000	4.221E-04	0.0001	2.429E-06	0.0000	1.079E-07	0.0000	1.317E-04	0.0000
Pu-239	4.142E-05	0.0000	2.447E-03	0.0007	0.000E+00	0.0000	4.800E-04	0.0001	2.762E-06	0.0000	1.226E-07	0.0000	1.497E-04	0.0000
Pu-240	2.687E-05	0.0000	2.447E-03	0.0007	0.000E+00	0.0000	4.799E-04	0.0001	2.761E-06	0.0000	1.226E-07	0.0000	1.497E-04	0.0000
Pu-241	3.852E-05	0.0000	5.282E-05	0.0000	0.000E+00	0.0000	1.038E-05	0.0000	5.256E-08	0.0000	3.524E-09	0.0000	3.237E-06	0.0000
Sb-125	1.187E-01	0.0350	3.306E-08	0.0000	0.000E+00	0.0000	1.606E-05	0.0000	6.880E-08	0.0000	3.608E-08	0.0000	6.491E-08	0.0000
Sr-90	2.670E-03	0.0008	6.837E-06	0.0000	0.000E+00	0.0000	6.104E-03	0.0018	6.531E-05	0.0000	1.024E-04	0.0000	5.919E-06	0.0000
Tc-99	1.099E-06	0.0000	2.810E-09	0.0000	0.000E+00	0.0000	6.018E-05	0.0000	7.226E-09	0.0000	5.735E-07	0.0000	3.656E-09	0.0000
Total	3.359E+00	0.9892	1.528E-02	0.0045	0.000E+00	0.0000	2.011E-02	0.0059	1.931E-04	0.0001	1.657E-04	0.0000	9.399E-04	0.0003

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS 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	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.017E-02	0.0030
C-14	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ce-144	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.675E-03	0.0005
Cm-243	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.458E-02	0.0220
Cm-244	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.577E-03	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	3.987E-06	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.063E+00	0.3129
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.322E-01	0.0978
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.584E-01	0.1056
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.344E-01	0.1868
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	6.239E-01	0.1837
Eu-155	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.699E-02	0.0050
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	1.201E-07	0.0000
H-3	1.101E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.926E-16	0.0000	2.377E-17	0.0000	8.763E-17	0.0000	1.844E-12	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.867E-06	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.014E-06	0.0000
Np-237	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.421E-01	0.0419
Pu-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.760E-03	0.0008
Pu-239	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.121E-03	0.0009
Pu-240	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.106E-03	0.0009
Pu-241	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.050E-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	1.187E-01	0.0350
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.955E-03	0.0026
Tc-99	1.092E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.857E-08	0.0000	5.293E-12	0.0000	3.094E-10	0.0000	7.281E-05	0.0000
Total	1.092E-05	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.857E-08	0.0000	5.293E-12	0.0000	3.094E-10	0.0000	3.395E+00	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS 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	6.898E-03	0.0039	2.398E-03	0.0014	0.000E+00	0.0000	4.673E-04	0.0003	1.354E-06	0.0000	2.799E-07	0.0000	1.457E-04	0.0001
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	3.205E-06	0.0000	1.849E-10	0.0000	0.000E+00	0.0000	5.335E-10	0.0000	4.817E-13	0.0000	2.283E-12	0.0000	7.738E-11	0.0000
Cm-243	5.985E-02	0.0340	1.310E-03	0.0007	0.000E+00	0.0000	2.545E-04	0.0001	5.245E-07	0.0000	1.777E-07	0.0000	7.938E-05	0.0000
Cm-244	1.698E-05	0.0000	9.155E-04	0.0005	0.000E+00	0.0000	1.773E-04	0.0001	3.665E-07	0.0000	1.236E-07	0.0000	5.528E-05	0.0000
Co-58	5.228E-17	0.0000	4.820E-24	0.0000	0.000E+00	0.0000	2.999E-21	0.0000	2.307E-22	0.0000	7.486E-23	0.0000	1.173E-23	0.0000
Co-60	4.115E-01	0.2340	3.031E-07	0.0000	0.000E+00	0.0000	7.044E-05	0.0000	5.424E-06	0.0000	1.761E-06	0.0000	2.760E-07	0.0000
Cs-134	3.075E-02	0.0175	7.486E-09	0.0000	0.000E+00	0.0000	1.205E-05	0.0000	1.446E-06	0.0000	1.601E-06	0.0000	8.805E-08	0.0000
Cs-137	2.968E-01	0.1688	1.377E-07	0.0000	0.000E+00	0.0000	2.190E-04	0.0001	2.626E-05	0.0000	2.909E-05	0.0000	1.600E-06	0.0000
Eu-152	4.292E-01	0.2440	7.046E-07	0.0000	0.000E+00	0.0000	1.128E-06	0.0000	1.013E-07	0.0000	1.050E-08	0.0000	1.532E-07	0.0000
Eu-154	3.500E-01	0.1990	6.885E-07	0.0000	0.000E+00	0.0000	1.255E-06	0.0000	1.128E-07	0.0000	1.169E-08	0.0000	1.704E-07	0.0000
Eu-155	6.293E-03	0.0036	5.257E-08	0.0000	0.000E+00	0.0000	1.061E-07	0.0000	9.528E-09	0.0000	9.874E-10	0.0000	1.440E-08	0.0000
Fe-55	0.000E+00	0.0000	9.993E-10	0.0000	0.000E+00	0.0000	5.360E-09	0.0000	1.066E-08	0.0000	4.708E-10	0.0000	1.672E-09	0.0000
H-3	0.000E+00	0.0000	1.219E-29	0.0000	0.000E+00	0.0000	8.117E-29	0.0000	0.000E+00	0.0000	5.788E-30	0.0000	0.000E+00	0.0000
Ni-59	0.000E+00	0.0000	1.463E-08	0.0000	0.000E+00	0.0000	1.346E-06	0.0000	2.072E-08	0.0000	3.909E-07	0.0000	8.434E-09	0.0000
Ni-63	0.000E+00	0.0000	3.193E-08	0.0000	0.000E+00	0.0000	3.465E-06	0.0000	5.334E-08	0.0000	1.006E-06	0.0000	2.171E-08	0.0000
Np-237	1.020E-01	0.0580	2.182E-03	0.0012	0.000E+00	0.0000	8.546E-03	0.0049	4.288E-05	0.0000	1.987E-06	0.0000	1.331E-04	0.0001
Pu-238	2.648E-05	0.0000	1.980E-03	0.0011	0.000E+00	0.0000	3.842E-04	0.0002	2.211E-06	0.0000	9.826E-08	0.0000	1.198E-04	0.0001
Pu-239	4.059E-05	0.0000	2.354E-03	0.0013	0.000E+00	0.0000	4.617E-04	0.0003	2.656E-06	0.0000	1.179E-07	0.0000	1.440E-04	0.0001
Pu-240	2.669E-05	0.0000	2.352E-03	0.0013	0.000E+00	0.0000	4.613E-04	0.0003	2.654E-06	0.0000	1.178E-07	0.0000	1.439E-04	0.0001
Pu-241	9.341E-05	0.0001	5.925E-05	0.0000	0.000E+00	0.0000	1.161E-05	0.0000	4.907E-08	0.0000	5.102E-09	0.0000	3.620E-06	0.0000
Sb-125	1.979E-02	0.0113	5.447E-09	0.0000	0.000E+00	0.0000	2.646E-06	0.0000	1.134E-08	0.0000	5.945E-09	0.0000	1.069E-08	0.0000
Sr-90	2.186E-03	0.0012	5.516E-06	0.0000	0.000E+00	0.0000	4.925E-03	0.0028	5.269E-05	0.0000	8.261E-05	0.0000	4.775E-06	0.0000
Tc-99	3.573E-09	0.0000	8.960E-12	0.0000	0.000E+00	0.0000	1.919E-07	0.0000	2.304E-11	0.0000	1.829E-09	0.0000	1.166E-11	0.0000
Total	1.715E+00	0.9755	1.356E-02	0.0077	0.000E+00	0.0000	1.600E-02	0.0091	1.388E-04	0.0001	1.194E-04	0.0001	8.319E-04	0.0005

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS DSR.RAD

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

As mrem/yr and Fraction of Total Dose At t = 1.000E+01 years

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	4.430E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.599E-12	0.0000	1.574E-14	0.0000	9.320E-16	0.0000	9.910E-03	0.0056
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	3.205E-06	0.0000
Cm-243	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.149E-02	0.0350
Cm-244	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.166E-03	0.0007
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.228E-17	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.116E-01	0.2341
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.077E-02	0.0175
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.971E-01	0.1690
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.292E-01	0.2440
Eu-154	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.500E-01	0.1990
Eu-155	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.293E-03	0.0036
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	1.916E-08	0.0000
H-3	1.487E-28	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.479E-28	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.781E-06	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.578E-06	0.0000
Np-237	1.241E-02	0.0071	0.000E+00	0.0000	0.000E+00	0.0000	4.520E-06	0.0000	4.666E-08	0.0000	2.711E-09	0.0000	1.253E-01	0.0713
Pu-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.513E-03	0.0014
Pu-239	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.003E-03	0.0017
Pu-240	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.987E-03	0.0017
Pu-241	5.169E-12	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.853E-15	0.0000	1.760E-17	0.0000	1.058E-18	0.0000	1.679E-04	0.0001
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	1.979E-02	0.0113
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.257E-03	0.0041
Tc-99	3.483E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.921E-11	0.0000	1.688E-14	0.0000	9.867E-13	0.0000	2.322E-07	0.0000
Total	1.241E-02	0.0071	0.000E+00	0.0000	0.000E+00	0.0000	4.520E-06	0.0000	4.666E-08	0.0000	2.712E-09	0.0000	1.759E+00	1.0000

*Sum of all water independent and dependent pathways.

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS 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	6.594E-03	0.0125	2.065E-03	0.0039	0.000E+00	0.0000	4.025E-04	0.0008	1.166E-06	0.0000	2.411E-07	0.0000	1.255E-04	0.0002
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	5.456E-14	0.0000	3.035E-18	0.0000	0.000E+00	0.0000	8.759E-18	0.0000	7.908E-21	0.0000	3.748E-20	0.0000	1.270E-18	0.0000
Cm-243	3.433E-02	0.0650	7.199E-04	0.0014	0.000E+00	0.0000	1.399E-04	0.0003	2.890E-07	0.0000	9.758E-08	0.0000	4.363E-05	0.0001
Cm-244	7.932E-06	0.0000	3.833E-04	0.0007	0.000E+00	0.0000	7.422E-05	0.0001	1.557E-07	0.0000	5.148E-08	0.0000	2.315E-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	2.719E-02	0.0515	1.949E-08	0.0000	0.000E+00	0.0000	4.530E-06	0.0000	3.488E-07	0.0000	1.132E-07	0.0000	1.775E-08	0.0000
Cs-134	3.410E-05	0.0001	8.030E-12	0.0000	0.000E+00	0.0000	1.293E-08	0.0000	1.551E-09	0.0000	1.718E-09	0.0000	9.445E-11	0.0000
Cs-137	1.725E-01	0.3268	7.734E-08	0.0000	0.000E+00	0.0000	1.230E-04	0.0002	1.475E-05	0.0000	1.634E-05	0.0000	8.987E-07	0.0000
Eu-152	1.395E-01	0.2642	2.223E-07	0.0000	0.000E+00	0.0000	3.559E-07	0.0000	3.196E-08	0.0000	3.312E-09	0.0000	4.831E-08	0.0000
Eu-154	6.664E-02	0.1262	1.272E-07	0.0000	0.000E+00	0.0000	2.319E-07	0.0000	2.082E-08	0.0000	2.158E-09	0.0000	3.148E-08	0.0000
Eu-155	3.677E-04	0.0007	2.867E-09	0.0000	0.000E+00	0.0000	5.787E-09	0.0000	5.197E-10	0.0000	5.386E-11	0.0000	7.856E-10	0.0000
Fe-55	0.000E+00	0.0000	5.225E-12	0.0000	0.000E+00	0.0000	2.803E-11	0.0000	5.573E-11	0.0000	2.462E-12	0.0000	8.741E-12	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	1.267E-08	0.0000	0.000E+00	0.0000	1.166E-06	0.0000	1.795E-08	0.0000	3.387E-07	0.0000	7.306E-09	0.0000
Ni-63	0.000E+00	0.0000	2.443E-08	0.0000	0.000E+00	0.0000	2.651E-06	0.0000	4.082E-08	0.0000	7.700E-07	0.0000	1.661E-08	0.0000
Np-237	5.275E-02	0.0999	1.081E-03	0.0020	0.000E+00	0.0000	4.233E-03	0.0080	2.124E-05	0.0000	9.844E-07	0.0000	6.592E-05	0.0001
Pu-238	2.238E-05	0.0000	1.502E-03	0.0028	0.000E+00	0.0000	2.914E-04	0.0006	1.676E-06	0.0000	7.470E-08	0.0000	9.087E-05	0.0002
Pu-239	3.814E-05	0.0001	2.089E-03	0.0040	0.000E+00	0.0000	4.098E-04	0.0008	2.358E-06	0.0000	1.047E-07	0.0000	1.278E-04	0.0002
Pu-240	2.618E-05	0.0000	2.084E-03	0.0039	0.000E+00	0.0000	4.088E-04	0.0008	2.352E-06	0.0000	1.044E-07	0.0000	1.275E-04	0.0002
Pu-241	1.727E-04	0.0003	6.317E-05	0.0001	0.000E+00	0.0000	1.233E-05	0.0000	4.097E-08	0.0000	6.760E-09	0.0000	3.846E-06	0.0000
Sb-125	1.176E-04	0.0002	3.127E-11	0.0000	0.000E+00	0.0000	1.519E-08	0.0000	6.508E-11	0.0000	3.413E-11	0.0000	6.140E-11	0.0000
Sr-90	1.228E-03	0.0023	2.963E-06	0.0000	0.000E+00	0.0000	2.645E-03	0.0050	2.831E-05	0.0001	4.438E-05	0.0001	2.565E-06	0.0000
Tc-99	2.774E-16	0.0000	6.548E-19	0.0000	0.000E+00	0.0000	1.402E-14	0.0000	1.684E-18	0.0000	1.337E-16	0.0000	8.518E-19	0.0000
Total	5.016E-01	0.9500	9.990E-03	0.0189	0.000E+00	0.0000	8.749E-03	0.0166	7.280E-05	0.0001	6.362E-05	0.0001	6.118E-04	0.0012

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS 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	6.417E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.347E-11	0.0000	2.490E-13	0.0000	1.431E-14	0.0000	9.189E-03	0.0174
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	5.457E-14	0.0000
Cm-243	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.524E-02	0.0667
Cm-244	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.888E-04	0.0009
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	2.720E-02	0.0515
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.412E-05	0.0001
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.727E-01	0.3271
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.395E-01	0.2642
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	6.664E-02	0.1262
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	3.677E-04	0.0007
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	1.002E-10	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.543E-06	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.503E-06	0.0000
Np-237	6.912E-03	0.0131	0.000E+00	0.0000	0.000E+00	0.0000	2.531E-06	0.0000	2.698E-08	0.0000	1.548E-09	0.0000	6.507E-02	0.1232
Pu-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.908E-03	0.0036
Pu-239	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.667E-03	0.0051
Pu-240	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.649E-03	0.0050
Pu-241	8.715E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.186E-13	0.0000	3.369E-15	0.0000	1.939E-16	0.0000	2.521E-04	0.0005
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	1.176E-04	0.0002
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.952E-03	0.0075
Tc-99	2.547E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.329E-18	0.0000	1.234E-21	0.0000	7.213E-20	0.0000	1.699E-14	0.0000
Total	6.912E-03	0.0131	0.000E+00	0.0000	0.000E+00	0.0000	2.531E-06	0.0000	2.698E-08	0.0000	1.548E-09	0.0000	5.280E-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\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS 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	5.516E-03	0.1181	1.056E-03	0.0226	0.000E+00	0.0000	2.059E-04	0.0044	5.968E-07	0.0000	1.233E-07	0.0000	6.421E-05	0.0014
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	4.399E-03	0.0942	7.733E-05	0.0017	0.000E+00	0.0000	1.503E-05	0.0003	3.190E-08	0.0000	1.038E-08	0.0000	4.688E-06	0.0001
Cm-244	6.069E-07	0.0000	1.834E-05	0.0004	0.000E+00	0.0000	3.558E-06	0.0001	9.665E-09	0.0000	2.205E-09	0.0000	1.110E-06	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	1.775E-06	0.0000	1.135E-12	0.0000	0.000E+00	0.0000	2.637E-10	0.0000	2.031E-11	0.0000	6.593E-12	0.0000	1.033E-12	0.0000
Cs-134	1.366E-15	0.0000	2.802E-22	0.0000	0.000E+00	0.0000	4.511E-19	0.0000	5.413E-20	0.0000	5.995E-20	0.0000	3.296E-21	0.0000
Cs-137	2.281E-02	0.4882	8.870E-09	0.0000	0.000E+00	0.0000	1.411E-05	0.0003	1.693E-06	0.0000	1.875E-06	0.0000	1.031E-07	0.0000
Eu-152	2.413E-03	0.0517	3.382E-09	0.0000	0.000E+00	0.0000	5.417E-09	0.0000	4.865E-10	0.0000	5.041E-11	0.0000	7.352E-10	0.0000
Eu-154	1.774E-04	0.0038	2.971E-10	0.0000	0.000E+00	0.0000	5.419E-10	0.0000	4.867E-11	0.0000	5.043E-12	0.0000	7.355E-11	0.0000
Eu-155	1.655E-08	0.0000	9.381E-14	0.0000	0.000E+00	0.0000	1.893E-13	0.0000	1.701E-14	0.0000	1.762E-15	0.0000	2.570E-14	0.0000
Fe-55	0.000E+00	0.0000	4.663E-20	0.0000	0.000E+00	0.0000	2.501E-19	0.0000	4.974E-19	0.0000	2.197E-20	0.0000	7.800E-20	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	6.616E-09	0.0000	0.000E+00	0.0000	6.089E-07	0.0000	9.378E-09	0.0000	1.769E-07	0.0000	3.815E-09	0.0000
Ni-63	0.000E+00	0.0000	8.263E-09	0.0000	0.000E+00	0.0000	8.970E-07	0.0000	1.381E-08	0.0000	2.606E-07	0.0000	5.620E-09	0.0000
Np-237	4.695E-03	0.1005	7.984E-05	0.0017	0.000E+00	0.0000	3.126E-04	0.0067	1.569E-06	0.0000	7.296E-08	0.0000	4.868E-06	0.0001
Pu-238	1.225E-05	0.0003	4.921E-04	0.0105	0.000E+00	0.0000	9.549E-05	0.0020	5.495E-07	0.0000	2.478E-08	0.0000	2.978E-05	0.0006
Pu-239	2.838E-05	0.0006	1.188E-03	0.0254	0.000E+00	0.0000	2.330E-04	0.0050	1.341E-06	0.0000	5.951E-08	0.0000	7.266E-05	0.0016
Pu-240	2.432E-05	0.0005	1.179E-03	0.0252	0.000E+00	0.0000	2.312E-04	0.0049	1.330E-06	0.0000	5.905E-08	0.0000	7.209E-05	0.0015
Pu-241	1.881E-04	0.0040	3.620E-05	0.0008	0.000E+00	0.0000	7.058E-06	0.0002	2.056E-08	0.0000	4.215E-09	0.0000	2.200E-06	0.0000
Sb-125	1.685E-12	0.0000	3.870E-19	0.0000	0.000E+00	0.0000	1.880E-16	0.0000	8.058E-19	0.0000	4.225E-19	0.0000	7.597E-19	0.0000
Sr-90	1.459E-04	0.0031	2.905E-07	0.0000	0.000E+00	0.0000	2.594E-04	0.0056	2.777E-06	0.0001	4.354E-06	0.0001	2.515E-07	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	4.041E-02	0.8650	4.127E-03	0.0883	0.000E+00	0.0000	1.379E-03	0.0295	9.942E-06	0.0002	7.023E-06	0.0002	2.520E-04	0.0054

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS 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	7.264E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.659E-11	0.0000	2.829E-13	0.0000	1.624E-14	0.0000	6.844E-03	0.1465
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	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.496E-03	0.0962
Cm-244	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.362E-05	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	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.775E-06	0.0000
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.367E-15	0.0000
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.282E-02	0.4886
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.413E-03	0.0517
Eu-154	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.774E-04	0.0038
Eu-155	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.655E-08	0.0000
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.942E-19	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ni-59	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.057E-07	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.185E-06	0.0000
Np-237	5.302E-04	0.0114	0.000E+00	0.0000	0.000E+00	0.0000	1.942E-07	0.0000	2.071E-09	0.0000	1.188E-10	0.0000	5.625E-03	0.1204
Pu-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.302E-04	0.0135
Pu-239	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.523E-03	0.0326
Pu-240	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.507E-03	0.0323
Pu-241	2.249E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.230E-13	0.0000	8.753E-15	0.0000	5.027E-16	0.0000	2.336E-04	0.0050
Sb-125	2.273E-18	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.536E-22	0.0000	2.688E-23	0.0000	1.253E-23	0.0000	1.685E-12	0.0000
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.130E-04	0.0088
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	5.303E-04	0.0114	0.000E+00	0.0000	0.000E+00	0.0000	1.942E-07	0.0000	2.071E-09	0.0000	1.188E-10	0.0000	4.671E-02	1.0000

*Sum of all water independent and dependent pathways.

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

Water Independent Pathways (Inhalation excludes radon)

[illegible]

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS DSR.RAD

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

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

Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Am-241	2.107E-09	0.0915	0.000E+00	0.0000	0.000E+00	0.0000	7.711E-13	0.0000	8.199E-15	0.0000	4.717E-16	0.0000	2.108E-09	0.0915
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	1.766E-17	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.354E-21	0.0000	1.594E-23	0.0000	1.441E-22	0.0000	1.767E-17	0.0000
Cm-244	1.847E-15	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.647E-19	0.0000	1.512E-21	0.0000	1.521E-20	0.0000	1.848E-15	0.0000
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Eu-152	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Eu-154	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Eu-155	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Fe-55	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
H-3	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ni-59	1.280E-08	0.5559	0.000E+00	0.0000	0.000E+00	0.0000	4.796E-12	0.0002	2.908E-13	0.0000	5.681E-12	0.0002	1.282E-08	0.5563
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Np-237	3.035E-09	0.1318	0.000E+00	0.0000	0.000E+00	0.0000	1.095E-12	0.0000	2.509E-15	0.0000	2.504E-14	0.0000	3.036E-09	0.1318
Pu-238	3.372E-10	0.0146	0.000E+00	0.0000	0.000E+00	0.0000	1.214E-13	0.0000	2.774E-16	0.0000	2.786E-15	0.0000	3.374E-10	0.0146
Pu-239	1.195E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.301E-17	0.0000	1.109E-19	0.0000	9.762E-19	0.0000	1.195E-13	0.0000
Pu-240	3.572E-12	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	1.286E-15	0.0000	2.937E-18	0.0000	2.950E-17	0.0000	3.573E-12	0.0002
Pu-241	7.696E-11	0.0033	0.000E+00	0.0000	0.000E+00	0.0000	2.816E-14	0.0000	2.994E-16	0.0000	1.722E-17	0.0000	7.699E-11	0.0033
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	4.656E-09	0.2021	0.000E+00	0.0000	0.000E+00	0.0000	2.105E-12	0.0001	1.508E-13	0.0000	1.809E-13	0.0000	4.658E-09	0.2022
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	2.302E-08	0.9993	0.000E+00	0.0000	0.000E+00	0.0000	8.918E-12	0.0004	4.529E-13	0.0000	5.891E-12	0.0003	2.304E-08	1.0000

*Sum of all water independent and dependent pathways.

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Water Independent Pathways (Inhalation excludes radon)

[illegible]

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 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	6.739E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.466E-13	0.0000	2.623E-15	0.0000	1.506E-16	0.0000	6.742E-10	0.0000
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	4.598E-08	0.0004	0.000E+00	0.0000	0.000E+00	0.0000	1.658E-11	0.0000	1.281E-14	0.0000	8.861E-16	0.0000	4.600E-08	0.0004
Cm-244	1.163E-07	0.0010	0.000E+00	0.0000	0.000E+00	0.0000	4.192E-11	0.0000	3.240E-14	0.0000	2.241E-15	0.0000	1.163E-07	0.0010
Co-58	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Co-60	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cs-134	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Cs-137	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Eu-152	5.046E-20	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.820E-23	0.0000	2.468E-25	0.0000	1.400E-26	0.0000	5.048E-20	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	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Ni-63	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Np-237	3.176E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.145E-14	0.0000	7.766E-18	0.0000	2.202E-18	0.0000	3.177E-11	0.0000
Pu-238	2.056E-08	0.0002	0.000E+00	0.0000	0.000E+00	0.0000	7.414E-12	0.0000	5.866E-15	0.0000	4.803E-16	0.0000	2.057E-08	0.0002
Pu-239	5.981E-05	0.5183	0.000E+00	0.0000	0.000E+00	0.0000	2.156E-08	0.0002	1.667E-11	0.0000	1.153E-12	0.0000	5.983E-05	0.5185
Pu-240	5.536E-05	0.4798	0.000E+00	0.0000	0.000E+00	0.0000	1.996E-08	0.0002	1.543E-11	0.0000	1.067E-12	0.0000	5.538E-05	0.4799
Pu-241	2.462E-11	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	9.011E-15	0.0000	9.539E-17	0.0000	5.483E-18	0.0000	2.463E-11	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	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	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	1.153E-04	0.9996	0.000E+00	0.0000	0.000E+00	0.0000	4.159E-08	0.0004	3.215E-11	0.0000	2.223E-12	0.0000	1.154E-04	1.0000

*Sum of all water independent and dependent pathways.

Dose/Source Ratios Summed Over All Pathways										
Parent and Progeny Principal Radionuclide Contributions Indicated										
Parent (i)	Product (j)	Thread Fraction	DSR(j,t) At Time in Years (mrem/yr)/(pCi/g)							
			0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	Am-241	1.000E+00	1.028E-02	1.025E-02	1.017E-02	9.910E-03	9.188E-03	6.843E-03	0.000E+00	0.000E+00
Am-241	Np-237+D	1.000E+00	2.539E-08	7.508E-08	1.690E-07	4.498E-07	9.661E-07	9.739E-07	2.108E-09	6.742E-10
Am-241	U-233	1.000E+00	2.614E-16	1.747E-15	8.821E-15	7.038E-14	4.454E-13	1.685E-12	9.716E-14	4.256E-16
Am-241	Th-229+D	1.000E+00	1.180E-18	1.752E-17	2.000E-16	4.903E-15	9.592E-14	1.514E-12	6.181E-16	8.110E-16
Am-241	ΣDSR(j)		1.028E-02	1.025E-02	1.017E-02	9.910E-03	9.189E-03	6.844E-03	2.108E-09	6.742E-10
C-14	C-14	1.000E+00	8.899E-06	7.180E-15	4.325E-34	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ce-144+D	Ce-144+D	1.000E+00	2.448E-02	1.001E-02	1.675E-03	3.205E-06	5.457E-14	3.137E-41	0.000E+00	0.000E+00
Cm-243	Cm-243	2.400E-03	1.944E-04	1.891E-04	1.790E-04	1.476E-04	8.457E-05	1.078E-05	0.000E+00	0.000E+00
Cm-243	Am-243+D	2.400E-03	1.448E-08	4.285E-08	9.711E-08	2.629E-07	5.739E-07	7.316E-07	0.000E+00	0.000E+00
Cm-243	Pu-239	2.400E-03	3.408E-15	2.358E-14	1.215E-13	9.909E-13	6.412E-12	2.593E-11	0.000E+00	6.812E-13
Cm-243	U-235+D	2.400E-03	2.787E-23	4.147E-22	4.752E-21	1.180E-19	2.389E-18	4.170E-17	1.792E-23	4.290E-20
Cm-243	Pa-231	2.400E-03	4.430E-29	1.379E-27	3.437E-26	2.528E-24	1.487E-22	8.302E-21	3.537E-23	4.234E-21
Cm-243	Ac-227+D	2.400E-03	1.796E-30	1.116E-28	5.810E-27	1.214E-24	1.919E-22	2.835E-20	2.156E-23	2.586E-21
Cm-243	ΣDSR(j)		1.944E-04	1.892E-04	1.791E-04	1.478E-04	8.514E-05	1.152E-05	7.485E-23	6.812E-13
Cm-243	Cm-243	9.976E-01	8.079E-02	7.861E-02	7.440E-02	6.135E-02	3.515E-02	4.483E-03	0.000E+00	0.000E+00
Cm-243	Pu-239	9.976E-01	4.517E-08	1.334E-07	3.010E-07	8.007E-07	1.657E-06	1.659E-06	0.000E+00	4.600E-08
Cm-243	U-235+D	9.976E-01	4.929E-16	3.416E-15	1.766E-14	1.458E-13	9.800E-13	4.676E-12	1.751E-17	6.059E-16
Cm-243	Pa-231	9.976E-01	9.841E-22	1.478E-20	1.699E-19	4.200E-18	8.320E-17	1.320E-15	1.358E-19	2.241E-17
Cm-243	Ac-227+D	9.976E-01	4.759E-23	1.453E-21	3.554E-20	2.501E-18	1.316E-16	5.311E-15	2.180E-20	1.468E-17
Cm-243	ΣDSR(j)		8.080E-02	7.861E-02	7.440E-02	6.135E-02	3.515E-02	4.484E-03	1.767E-17	4.600E-08
Cm-244	Cm-244	1.350E-06	2.423E-09	2.321E-09	2.128E-09	1.570E-09	6.530E-10	2.632E-11	0.000E+00	0.000E+00
Cm-244	Cm-244	4.950E-08	8.885E-11	8.509E-11	7.802E-11	5.756E-11	2.394E-11	9.651E-13	0.000E+00	0.000E+00
Cm-244	Pu-240	4.950E-08	8.174E-15	2.400E-14	5.341E-14	1.358E-13	2.514E-13	2.042E-13	0.000E+00	5.758E-15
Cm-244	ΣDSR(j)		8.886E-11	8.511E-11	7.808E-11	5.769E-11	2.420E-11	1.169E-12	0.000E+00	5.758E-15
Cm-244	Cm-244	1.000E+00	1.795E-03	1.719E-03	1.576E-03	1.163E-03	4.837E-04	1.950E-05	0.000E+00	0.000E+00
Cm-244	Pu-240	1.000E+00	1.651E-07	4.849E-07	1.079E-06	2.743E-06	5.079E-06	4.124E-06	0.000E+00	1.163E-07
Cm-244	U-236	1.000E+00	4.258E-16	2.944E-15	1.505E-14	1.191E-13	7.136E-13	2.455E-12	1.848E-15	4.391E-14
Cm-244	Th-232	1.000E+00	6.363E-26	9.407E-25	1.066E-23	2.549E-22	4.668E-21	5.925E-20	1.835E-24	5.945E-22
Cm-244	Ra-228+D	1.000E+00	9.895E-26	2.977E-24	7.022E-23	4.351E-21	1.695E-19	3.785E-18	8.454E-24	2.800E-21
Cm-244	Th-228+D	1.000E+00	8.783E-27	5.125E-25	2.333E-23	3.143E-21	1.957E-19	5.311E-18	5.295E-25	1.760E-22
Cm-244	ΣDSR(j)		1.795E-03	1.719E-03	1.577E-03	1.166E-03	4.888E-04	2.362E-05	1.848E-15	1.163E-07
Co-58	Co-58	1.000E+00	1.838E-01	5.126E-03	3.987E-06	5.228E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	Co-60	1.000E+00	1.595E+00	1.393E+00	1.063E+00	4.116E-01	2.720E-02	1.775E-06	0.000E+00	0.000E+00
Cs-134	Cs-134	1.000E+00	9.205E-01	6.553E-01	3.322E-01	3.077E-02	3.412E-05	1.367E-15	0.000E+00	0.000E+00
Cs-137+D	Cs-137+D	1.000E+00	3.883E-01	3.781E-01	3.584E-01	2.971E-01	1.727E-01	2.282E-02	0.000E+00	0.000E+00

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	5.405E-01	5.112E-01	4.573E-01	3.093E-01	1.006E-01	1.739E-03	0.000E+00	0.000E+00
Eu-152	Eu-152	2.792E-01	2.094E-01	1.980E-01	1.771E-01	1.198E-01	3.895E-02	6.737E-04	0.000E+00	0.000E+00
Eu-152	Gd-152	2.792E-01	1.276E-18	3.721E-18	8.171E-18	1.990E-17	3.344E-17	2.380E-17	0.000E+00	5.048E-20
Eu-152	ΣDSR(j)		2.094E-01	1.980E-01	1.771E-01	1.198E-01	3.895E-02	6.737E-04	0.000E+00	5.048E-20
Eu-154	Eu-154	1.000E+00	7.990E-01	7.358E-01	6.239E-01	3.500E-01	6.664E-02	1.774E-04	0.000E+00	0.000E+00
Eu-155	Eu-155	1.000E+00	2.599E-02	2.255E-02	1.699E-02	6.293E-03	3.677E-04	1.655E-08	0.000E+00	0.000E+00
Fe-55	Fe-55	1.000E+00	2.638E-07	2.030E-07	1.201E-07	1.916E-08	1.002E-10	8.942E-19	0.000E+00	0.000E+00
H-3	H-3	1.000E+00	5.798E-06	6.307E-08	1.844E-12	2.490E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni-59	Ni-59	1.000E+00	1.905E-06	1.892E-06	1.867E-06	1.781E-06	1.543E-06	8.057E-07	1.282E-08	0.000E+00
Ni-63	Ni-63	1.000E+00	5.210E-06	5.144E-06	5.014E-06	4.578E-06	3.503E-06	1.185E-06	0.000E+00	0.000E+00
Np-237+D	Np-237+D	1.000E+00	1.568E-01	1.518E-01	1.421E-01	1.253E-01	6.507E-02	5.624E-03	0.000E+00	0.000E+00
Np-237+D	U-233	1.000E+00	2.362E-09	6.799E-09	1.512E-08	3.956E-08	8.030E-08	7.642E-08	3.010E-09	0.000E+00
Np-237+D	Th-229+D	1.000E+00	1.455E-11	1.007E-10	5.185E-10	4.229E-09	2.753E-08	1.215E-07	2.652E-11	3.177E-11
Np-237+D	ΣDSR(j)		1.568E-01	1.518E-01	1.421E-01	1.253E-01	6.507E-02	5.625E-03	3.036E-09	3.177E-11
Pu-238	Pu-238	1.840E-09	5.284E-12	5.215E-12	5.078E-12	4.624E-12	3.511E-12	1.159E-12	0.000E+00	3.782E-17
Pu-238	Pu-238	1.000E+00	2.872E-03	2.834E-03	2.760E-03	2.513E-03	1.908E-03	6.301E-04	0.000E+00	2.056E-08
Pu-238	U-234	1.000E+00	1.268E-09	3.776E-09	8.651E-09	2.429E-08	5.800E-08	8.540E-08	3.374E-10	9.429E-13
Pu-238	Th-230	1.000E+00	9.087E-15	6.309E-14	3.282E-13	2.776E-12	1.983E-11	1.066E-10	7.007E-16	1.831E-13
Pu-238	Ra-226+D	1.000E+00	5.423E-16	8.093E-15	9.331E-14	2.368E-12	5.073E-11	1.012E-09	4.151E-17	1.268E-12
Pu-238	Pb-210+D	1.000E+00	1.984E-20	5.401E-19	1.230E-17	8.372E-16	4.522E-14	2.058E-12	1.205E-17	1.012E-12
Pu-238	Po-210	1.000E+00	4.916E-22	1.957E-20	6.281E-19	5.705E-17	3.427E-15	1.510E-13	2.783E-16	1.294E-11
Pu-238	ΣDSR(j)		2.872E-03	2.834E-03	2.760E-03	2.513E-03	1.908E-03	6.302E-04	3.374E-10	2.057E-08
Pu-239	Pu-239	1.000E+00	3.172E-03	3.155E-03	3.121E-03	3.003E-03	2.667E-03	1.523E-03	0.000E+00	5.983E-05
Pu-239	U-235+D	1.000E+00	5.178E-11	1.548E-10	3.587E-10	1.048E-09	2.807E-09	6.237E-09	1.182E-13	6.338E-13
Pu-239	Pa-231	1.000E+00	1.384E-16	9.728E-16	5.115E-15	4.435E-14	3.380E-13	2.266E-12	1.118E-15	2.129E-14
Pu-239	Ac-227+D	1.000E+00	8.301E-18	1.230E-16	1.402E-15	3.422E-14	6.628E-13	1.021E-11	1.510E-16	1.397E-14
Pu-239	ΣDSR(j)		3.172E-03	3.155E-03	3.121E-03	3.003E-03	2.667E-03	1.523E-03	1.195E-13	5.983E-05
Pu-240	Pu-240	4.950E-08	1.563E-10	1.554E-10	1.537E-10	1.478E-10	1.311E-10	7.462E-11	0.000E+00	2.741E-12
Pu-240	Pu-240	1.000E+00	3.157E-03	3.140E-03	3.106E-03	2.987E-03	2.649E-03	1.507E-03	0.000E+00	5.538E-05
Pu-240	U-236	1.000E+00	1.222E-11	3.652E-11	8.429E-11	2.430E-10	6.252E-10	1.175E-09	3.573E-12	1.778E-11
Pu-240	Th-232	1.000E+00	2.417E-21	1.682E-20	8.787E-20	7.555E-19	5.645E-18	3.472E-17	2.289E-21	2.813E-19
Pu-240	Ra-228+D	1.000E+00	4.678E-21	6.822E-20	7.475E-19	1.600E-17	2.335E-16	2.294E-15	1.038E-20	1.325E-18
Pu-240	Th-228+D	1.000E+00	4.941E-22	1.410E-20	2.978E-19	1.323E-17	2.875E-16	3.261E-15	6.449E-22	8.333E-20
Pu-240	ΣDSR(j)		3.157E-03	3.140E-03	3.106E-03	2.987E-03	2.649E-03	1.507E-03	3.573E-12	5.538E-05

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	5.969E-05	5.658E-05	5.084E-05	3.492E-05	1.185E-05	2.334E-07	0.000E+00	1.446E-27
Pu-241	Am-241	1.000E+00	8.115E-06	2.377E-05	5.265E-05	1.319E-04	2.399E-04	2.333E-04	0.000E+00	1.149E-13
Pu-241	Np-237+D	1.000E+00	1.340E-11	9.180E-11	4.589E-10	3.354E-09	1.689E-08	3.071E-08	7.698E-11	2.452E-11
Pu-241	U-233	1.000E+00	1.058E-19	1.494E-18	1.627E-17	3.595E-16	5.518E-15	4.153E-14	2.681E-15	1.520E-17
Pu-241	Th-229+D	1.000E+00	3.759E-22	1.145E-20	2.781E-19	1.904E-17	9.311E-16	3.145E-14	1.610E-17	2.173E-17
Pu-241	ΣDSR(j)		6.780E-05	8.035E-05	1.035E-04	1.669E-04	2.517E-04	2.336E-04	7.699E-11	2.463E-11
Pu-241+D	Pu-241+D	2.450E-05	1.782E-06	1.694E-06	1.529E-06	1.068E-06	3.809E-07	9.365E-09	0.000E+00	3.707E-32
Pu-241+D	Np-237+D	2.450E-05	6.124E-13	1.774E-12	3.813E-12	8.632E-12	1.164E-11	1.999E-12	7.981E-20	5.548E-35
Pu-241+D	U-233	2.450E-05	6.330E-21	4.173E-20	2.045E-19	1.468E-18	6.984E-18	1.171E-17	4.820E-19	5.606E-41
Pu-241+D	Th-229+D	2.450E-05	2.864E-23	4.211E-22	4.702E-21	1.066E-19	1.687E-18	1.471E-17	3.727E-21	4.498E-21
Pu-241+D	ΣDSR(j)		1.782E-06	1.694E-06	1.529E-06	1.068E-06	3.809E-07	9.367E-09	5.656E-19	4.498E-21
Sb-125	Sb-125	7.720E-01	1.970E-01	1.525E-01	9.143E-02	1.524E-02	9.059E-05	1.296E-12	6.655E-41	0.000E+00
Sb-125	Sb-125	2.280E-01	5.818E-02	4.504E-02	2.700E-02	4.501E-03	2.675E-05	3.827E-13	1.966E-41	0.000E+00
Sb-125	Te-125m	2.280E-01	4.534E-04	4.717E-04	2.857E-04	4.868E-05	3.101E-07	6.399E-15	2.136E-41	0.000E+00
Sb-125	ΣDSR(j)		5.863E-02	4.552E-02	2.729E-02	4.550E-03	2.706E-05	3.891E-13	4.102E-41	0.000E+00
Sr-90+D	Sr-90+D	1.000E+00	9.795E-03	9.507E-03	8.955E-03	7.257E-03	3.952E-03	4.130E-04	4.658E-09	0.000E+00
Tc-99	Tc-99	1.000E+00	7.804E-04	3.761E-04	7.281E-05	2.322E-07	1.699E-14	1.557E-39	0.000E+00	0.000E+00

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

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS DSR.RAD

Single Radionuclide Soil Guidelines G(i,t) in pCi/g

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

Nuclide (i)	t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	2.431E+03	2.440E+03	2.458E+03	2.523E+03	2.721E+03	3.653E+03	1.186E+10	3.708E+10
C-14	2.809E+06	*4.455E+12	*4.455E+12	*4.455E+12	*4.455E+12	*4.455E+12	*4.455E+12	*4.455E+12
Ce-144	1.021E+03	2.496E+03	1.492E+04	7.799E+06	4.581E+14	*3.191E+15	*3.191E+15	*3.191E+15
Cm-243	3.087E+02	3.173E+02	3.352E+02	4.065E+02	7.095E+02	5.561E+03	*5.161E+13	5.435E+08
Cm-244	1.393E+04	1.454E+04	1.585E+04	2.145E+04	5.114E+04	1.058E+06	*8.088E+13	2.149E+08
Co-58	1.360E+02	4.877E+03	6.271E+06	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16	*3.183E+16
Co-60	1.568E+01	1.795E+01	2.353E+01	6.074E+01	9.191E+02	1.409E+07	*1.132E+15	*1.132E+15
Cs-134	2.716E+01	3.815E+01	7.527E+01	8.126E+02	7.327E+05	*1.295E+15	*1.295E+15	*1.295E+15
Cs-137	6.439E+01	6.613E+01	6.975E+01	8.414E+01	1.448E+02	1.095E+03	*8.704E+13	*8.704E+13
Eu-152	3.334E+01	3.525E+01	3.941E+01	5.825E+01	1.792E+02	1.036E+04	*1.765E+14	*1.765E+14
Eu-154	3.129E+01	3.398E+01	4.007E+01	7.143E+01	3.751E+02	1.410E+05	*2.639E+14	*2.639E+14
Eu-155	9.619E+02	1.108E+03	1.472E+03	3.973E+03	6.799E+04	1.511E+09	*4.652E+14	*4.652E+14
Fe-55	9.478E+07	1.232E+08	2.081E+08	1.305E+09	2.495E+11	*2.410E+15	*2.410E+15	*2.410E+15
H-3	4.312E+06	3.964E+08	1.356E+13	*9.597E+15	*9.597E+15	*9.597E+15	*9.597E+15	*9.597E+15
Ni-59	1.313E+07	1.321E+07	1.339E+07	1.404E+07	1.621E+07	3.103E+07	1.951E+09	*8.088E+10
Ni-63	4.798E+06	4.860E+06	4.986E+06	5.460E+06	7.136E+06	2.109E+07	*5.917E+13	*5.917E+13
Np-237	1.594E+02	1.647E+02	1.759E+02	1.995E+02	3.842E+02	4.445E+03	*7.047E+08	*7.047E+08
Pu-238	8.705E+03	8.821E+03	9.058E+03	9.948E+03	1.310E+04	3.967E+04	7.410E+10	1.215E+09
Pu-239	7.881E+03	7.923E+03	8.009E+03	8.325E+03	9.373E+03	1.641E+04	*6.214E+10	4.179E+05
Pu-240	7.918E+03	7.961E+03	8.049E+03	8.371E+03	9.437E+03	1.658E+04	*2.278E+11	4.514E+05
Pu-241	3.593E+05	3.047E+05	2.381E+05	1.489E+05	9.917E+04	1.070E+05	3.247E+11	1.015E+12
Sb-125	9.780E+01	1.262E+02	2.106E+02	1.263E+03	2.125E+05	1.484E+13	*1.033E+15	*1.033E+15
Sr-90	2.552E+03	2.630E+03	2.792E+03	3.445E+03	6.327E+03	6.054E+04	5.367E+09	*1.365E+14
Tc-99	3.203E+04	6.647E+04	3.434E+05	1.077E+08	*1.697E+10	*1.697E+10	*1.697E+10	*1.697E+10

*At specific activity limit

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS DSR.RAD

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

Nuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
Am-241	1.000E+00	0.000E+00	1.028E-02	2.431E+03	1.028E-02	2.431E+03
C-14	1.000E+00	0.000E+00	8.899E-06	2.809E+06	8.899E-06	2.809E+06
Ce-144	1.000E+00	0.000E+00	2.448E-02	1.021E+03	2.448E-02	1.021E+03
Cm-243	1.000E+00	0.000E+00	8.099E-02	3.087E+02	8.099E-02	3.087E+02
Cm-244	1.000E+00	0.000E+00	1.795E-03	1.393E+04	1.795E-03	1.393E+04
Co-58	1.000E+00	0.000E+00	1.838E-01	1.360E+02	1.838E-01	1.360E+02
Co-60	1.000E+00	0.000E+00	1.595E+00	1.568E+01	1.595E+00	1.568E+01
Cs-134	1.000E+00	0.000E+00	9.205E-01	2.716E+01	9.205E-01	2.716E+01
Cs-137	1.000E+00	0.000E+00	3.883E-01	6.439E+01	3.883E-01	6.439E+01
Eu-152	1.000E+00	0.000E+00	7.499E-01	3.334E+01	7.499E-01	3.334E+01
Eu-154	1.000E+00	0.000E+00	7.990E-01	3.129E+01	7.990E-01	3.129E+01
Eu-155	1.000E+00	0.000E+00	2.599E-02	9.619E+02	2.599E-02	9.619E+02
Fe-55	1.000E+00	0.000E+00	2.638E-07	9.478E+07	2.638E-07	9.478E+07
H-3	1.000E+00	0.000E+00	5.798E-06	4.312E+06	5.798E-06	4.312E+06
Ni-59	1.000E+00	0.000E+00	1.905E-06	1.313E+07	1.905E-06	1.313E+07
Ni-63	1.000E+00	0.000E+00	5.210E-06	4.798E+06	5.210E-06	4.798E+06
Np-237	1.000E+00	0.000E+00	1.568E-01	1.594E+02	1.568E-01	1.594E+02
Pu-238	1.000E+00	0.000E+00	2.872E-03	8.705E+03	2.872E-03	8.705E+03
Pu-239	1.000E+00	0.000E+00	3.172E-03	7.881E+03	3.172E-03	7.881E+03
Pu-240	1.000E+00	0.000E+00	3.157E-03	7.918E+03	3.157E-03	7.918E+03
Pu-241	1.000E+00	50.3 ± 0.1	2.688E-04	9.302E+04	6.958E-05	3.593E+05
Sb-125	1.000E+00	0.000E+00	2.556E-01	9.780E+01	2.556E-01	9.780E+01
Sr-90	1.000E+00	0.000E+00	9.795E-03	2.552E+03	9.795E-03	2.552E+03
Tc-99	1.000E+00	0.000E+00	7.804E-04	3.203E+04	7.804E-04	3.203E+04

Individual Nuclide Dose Summed Over All Pathways

Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	DOSE(j,t), mrem/yr							
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	Am-241	1.000E+00	1.028E-02	1.025E-02	1.017E-02	9.910E-03	9.188E-03	6.843E-03	0.000E+00	0.000E+00
Am-241	Pu-241	1.000E+00	8.115E-06	2.377E-05	5.265E-05	1.319E-04	2.399E-04	2.333E-04	0.000E+00	1.149E-13
Am-241	ΣDOSE (j)		1.029E-02	1.027E-02	1.022E-02	1.004E-02	9.427E-03	7.076E-03	0.000E+00	1.149E-13
Np-237	Am-241	1.000E+00	2.539E-08	7.508E-08	1.690E-07	4.498E-07	9.661E-07	9.739E-07	2.108E-09	6.742E-10
Np-237	Np-237	1.000E+00	1.568E-01	1.518E-01	1.421E-01	1.253E-01	6.507E-02	5.624E-03	0.000E+00	0.000E+00
Np-237	Pu-241	1.000E+00	1.340E-11	9.180E-11	4.589E-10	3.354E-09	1.689E-08	3.071E-08	7.698E-11	2.452E-11
Np-237	Pu-241	2.450E-05	6.124E-13	1.774E-12	3.813E-12	8.632E-12	1.164E-11	1.999E-12	7.981E-20	0.000E+00
Np-237	ΣDOSE (j)		1.568E-01	1.518E-01	1.421E-01	1.253E-01	6.507E-02	5.625E-03	2.185E-09	6.987E-10
U-233	Am-241	1.000E+00	2.614E-16	1.747E-15	8.821E-15	7.038E-14	4.454E-13	1.685E-12	9.716E-14	4.256E-16
U-233	Np-237	1.000E+00	2.362E-09	6.799E-09	1.512E-08	3.956E-08	8.030E-08	7.642E-08	3.010E-09	0.000E+00
U-233	Pu-241	1.000E+00	1.058E-19	1.494E-18	1.627E-17	3.595E-16	5.518E-15	4.153E-14	2.681E-15	1.520E-17
U-233	Pu-241	2.450E-05	6.330E-21	4.173E-20	2.045E-19	1.468E-18	6.984E-18	1.171E-17	4.820E-19	0.000E+00
U-233	ΣDOSE (j)		2.362E-09	6.799E-09	1.512E-08	3.956E-08	8.030E-08	7.642E-08	3.010E-09	4.408E-16
Th-229	Am-241	1.000E+00	1.180E-18	1.752E-17	2.000E-16	4.903E-15	9.592E-14	1.514E-12	6.181E-16	8.110E-16
Th-229	Np-237	1.000E+00	1.455E-11	1.007E-10	5.185E-10	4.229E-09	2.753E-08	1.215E-07	2.652E-11	3.177E-11
Th-229	Pu-241	1.000E+00	3.759E-22	1.145E-20	2.781E-19	1.904E-17	9.311E-16	3.145E-14	1.610E-17	2.173E-17
Th-229	Pu-241	2.450E-05	2.864E-23	4.211E-22	4.702E-21	1.066E-19	1.687E-18	1.471E-17	3.727E-21	4.498E-21
Th-229	ΣDOSE (j)		1.455E-11	1.007E-10	5.185E-10	4.229E-09	2.753E-08	1.215E-07	2.652E-11	3.177E-11
C-14	C-14	1.000E+00	8.899E-06	7.180E-15	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ce-144	Ce-144	1.000E+00	2.448E-02	1.001E-02	1.675E-03	3.205E-06	5.457E-14	0.000E+00	0.000E+00	0.000E+00
Cm-243	Cm-243	2.400E-03	1.944E-04	1.891E-04	1.790E-04	1.476E-04	8.457E-05	1.078E-05	0.000E+00	0.000E+00
Cm-243	Cm-243	9.976E-01	8.079E-02	7.861E-02	7.440E-02	6.135E-02	3.515E-02	4.483E-03	0.000E+00	0.000E+00
Cm-243	ΣDOSE (j)		8.099E-02	7.880E-02	7.458E-02	6.149E-02	3.524E-02	4.493E-03	0.000E+00	0.000E+00
Am-243	Cm-243	2.400E-03	1.448E-08	4.285E-08	9.711E-08	2.629E-07	5.739E-07	7.316E-07	0.000E+00	0.000E+00
Pu-239	Cm-243	2.400E-03	3.408E-15	2.358E-14	1.215E-13	9.909E-13	6.412E-12	2.593E-11	0.000E+00	6.812E-13
Pu-239	Cm-243	9.976E-01	4.517E-08	1.334E-07	3.010E-07	8.007E-07	1.657E-06	1.659E-06	0.000E+00	4.600E-08
Pu-239	Pu-239	1.000E+00	3.172E-03	3.155E-03	3.121E-03	3.003E-03	2.667E-03	1.523E-03	0.000E+00	5.983E-05
Pu-239	ΣDOSE (j)		3.172E-03	3.155E-03	3.122E-03	3.004E-03	2.669E-03	1.525E-03	0.000E+00	5.987E-05
U-235	Cm-243	2.400E-03	2.787E-23	4.147E-22	4.752E-21	1.180E-19	2.389E-18	4.170E-17	1.792E-23	4.290E-20
U-235	Cm-243	9.976E-01	4.929E-16	3.416E-15	1.766E-14	1.458E-13	9.800E-13	4.676E-12	1.751E-17	6.059E-16
U-235	Pu-239	1.000E+00	5.178E-11	1.548E-10	3.587E-10	1.048E-09	2.807E-09	6.237E-09	1.182E-13	6.338E-13
U-235	ΣDOSE (j)		5.179E-11	1.549E-10	3.587E-10	1.048E-09	2.808E-09	6.242E-09	1.183E-13	6.344E-13
Pa-231	Cm-243	2.400E-03	4.346E-29	1.379E-27	3.437E-26	2.528E-24	1.487E-22	8.302E-21	3.537E-23	4.234E-21
Pa-231	Cm-243	9.976E-01	9.841E-22	1.478E-20	1.699E-19	4.200E-18	8.320E-17	1.320E-15	1.358E-19	2.241E-17
Pa-231	Pu-239	1.000E+00	1.384E-16	9.728E-16	5.115E-15	4.435E-14	3.380E-13	2.266E-12	1.118E-15	2.129E-14
Pa-231	ΣDOSE (j)		1.384E-16	9.728E-16	5.115E-15	4.436E-14	3.381E-13	2.267E-12	1.118E-15	2.131E-14
Ac-227	Cm-243	2.400E-03	1.536E-30	1.113E-28	5.809E-27	1.214E-24	1.919E-22	2.835E-20	2.156E-23	2.586E-21
Ac-227	Cm-243	9.976E-01	4.759E-23	1.453E-21	3.554E-20	2.501E-18	1.316E-16	5.311E-15	2.180E-20	1.468E-17

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	8.301E-18	1.230E-16	1.402E-15	3.422E-14	6.628E-13	1.021E-11	1.510E-16	1.397E-14
Ac-227	ΣDOSE(j)		8.301E-18	1.230E-16	1.402E-15	3.422E-14	6.629E-13	1.022E-11	1.510E-16	1.399E-14
Cm-244	Cm-244	1.350E-06	2.423E-09	2.321E-09	2.128E-09	1.570E-09	6.530E-10	2.632E-11	0.000E+00	0.000E+00
Cm-244	Cm-244	4.950E-08	8.885E-11	8.509E-11	7.802E-11	5.756E-11	2.394E-11	9.651E-13	0.000E+00	0.000E+00
Cm-244	ΣDOSE(j)		2.512E-09	2.406E-09	2.206E-09	1.627E-09	6.770E-10	2.729E-11	0.000E+00	0.000E+00
Pu-240	Cm-244	4.950E-08	8.174E-15	2.400E-14	5.341E-14	1.358E-13	2.514E-13	2.042E-13	0.000E+00	5.758E-15
Pu-240	Pu-240	4.950E-08	1.563E-10	1.554E-10	1.537E-10	1.478E-10	1.311E-10	7.462E-11	0.000E+00	2.741E-12
Pu-240	ΣDOSE(j)		1.563E-10	1.555E-10	1.538E-10	1.480E-10	1.314E-10	7.482E-11	0.000E+00	2.747E-12
Cm-244	Cm-244	1.000E+00	1.795E-03	1.719E-03	1.576E-03	1.163E-03	4.837E-04	1.950E-05	0.000E+00	0.000E+00
Pu-240	Cm-244	1.000E+00	1.651E-07	4.849E-07	1.079E-06	2.743E-06	5.079E-06	4.124E-06	0.000E+00	1.163E-07
U-236	Cm-244	1.000E+00	4.258E-16	2.944E-15	1.505E-14	1.191E-13	7.136E-13	2.455E-12	1.848E-15	4.391E-14
U-236	Pu-240	1.000E+00	1.222E-11	3.652E-11	8.429E-11	2.430E-10	6.252E-10	1.175E-09	3.573E-12	1.778E-11
U-236	ΣDOSE(j)		1.223E-11	3.652E-11	8.431E-11	2.431E-10	6.259E-10	1.178E-09	3.575E-12	1.783E-11
Th-232	Cm-244	1.000E+00	6.363E-26	9.407E-25	1.066E-23	2.549E-22	4.668E-21	5.925E-20	1.835E-24	5.945E-22
Th-232	Pu-240	1.000E+00	2.417E-21	1.682E-20	8.787E-20	7.555E-19	5.645E-18	3.472E-17	2.289E-21	2.813E-19
Th-232	ΣDOSE(j)		2.418E-21	1.682E-20	8.788E-20	7.557E-19	5.649E-18	3.477E-17	2.291E-21	2.818E-19
Ra-228	Cm-244	1.000E+00	9.895E-26	2.977E-24	7.022E-23	4.351E-21	1.695E-19	3.785E-18	8.454E-24	2.800E-21
Ra-228	Pu-240	1.000E+00	4.678E-21	6.822E-20	7.475E-19	1.600E-17	2.335E-16	2.294E-15	1.038E-20	1.325E-18
Ra-228	ΣDOSE(j)		4.679E-21	6.823E-20	7.475E-19	1.600E-17	2.337E-16	2.298E-15	1.039E-20	1.328E-18
Th-228	Cm-244	1.000E+00	8.783E-27	5.125E-25	2.333E-23	3.143E-21	1.957E-19	5.311E-18	5.295E-25	1.760E-22
Th-228	Pu-240	1.000E+00	4.941E-22	1.410E-20	2.978E-19	1.323E-17	2.875E-16	3.261E-15	6.449E-22	8.333E-20
Th-228	ΣDOSE(j)		4.942E-22	1.410E-20	2.978E-19	1.323E-17	2.877E-16	3.267E-15	6.455E-22	8.351E-20
Co-58	Co-58	1.000E+00	1.838E-01	5.126E-03	3.987E-06	5.228E-17	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Co-60	Co-60	1.000E+00	1.595E+00	1.393E+00	1.063E+00	4.116E-01	2.720E-02	1.775E-06	0.000E+00	0.000E+00
Cs-134	Cs-134	1.000E+00	9.205E-01	6.553E-01	3.322E-01	3.077E-02	3.412E-05	1.367E-15	0.000E+00	0.000E+00
Cs-137	Cs-137	1.000E+00	3.883E-01	3.781E-01	3.584E-01	2.971E-01	1.727E-01	2.282E-02	0.000E+00	0.000E+00
Eu-152	Eu-152	7.208E-01	5.405E-01	5.112E-01	4.573E-01	3.093E-01	1.006E-01	1.739E-03	0.000E+00	0.000E+00
Eu-152	Eu-152	2.792E-01	2.094E-01	1.980E-01	1.771E-01	1.198E-01	3.895E-02	6.737E-04	0.000E+00	0.000E+00
Eu-152	ΣDOSE(j)		7.499E-01	7.092E-01	6.344E-01	4.292E-01	1.395E-01	2.413E-03	0.000E+00	0.000E+00
Gd-152	Eu-152	2.792E-01	1.276E-18	3.721E-18	8.171E-18	1.990E-17	3.344E-17	2.380E-17	0.000E+00	5.048E-20
Eu-154	Eu-154	1.000E+00	7.990E-01	7.358E-01	6.239E-01	3.500E-01	6.664E-02	1.774E-04	0.000E+00	0.000E+00
Eu-155	Eu-155	1.000E+00	2.599E-02	2.255E-02	1.699E-02	6.293E-03	3.677E-04	1.655E-08	0.000E+00	0.000E+00
Fe-55	Fe-55	1.000E+00	2.638E-07	2.030E-07	1.201E-07	1.916E-08	1.002E-10	8.942E-19	0.000E+00	0.000E+00

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	5.798E-06	6.307E-08	1.844E-12	2.479E-28	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni-59	Ni-59	1.000E+00	1.905E-06	1.892E-06	1.867E-06	1.781E-06	1.543E-06	8.057E-07	1.282E-08	0.000E+00
Ni-63	Ni-63	1.000E+00	5.210E-06	5.144E-06	5.014E-06	4.578E-06	3.503E-06	1.185E-06	0.000E+00	0.000E+00
Pu-238	Pu-238	1.840E-09	5.284E-12	5.215E-12	5.078E-12	4.624E-12	3.511E-12	1.159E-12	0.000E+00	3.782E-17
Pu-238	Pu-238	1.000E+00	2.872E-03	2.834E-03	2.760E-03	2.513E-03	1.908E-03	6.301E-04	0.000E+00	2.056E-08
Pu-238	ΣDOSE(j)		2.872E-03	2.834E-03	2.760E-03	2.513E-03	1.908E-03	6.301E-04	0.000E+00	2.056E-08
U-234	Pu-238	1.000E+00	1.268E-09	3.776E-09	8.651E-09	2.429E-08	5.800E-08	8.540E-08	3.374E-10	9.429E-13
Th-230	Pu-238	1.000E+00	9.087E-15	6.309E-14	3.282E-13	2.776E-12	1.983E-11	1.066E-10	7.007E-16	1.831E-13
Ra-226	Pu-238	1.000E+00	5.423E-16	8.093E-15	9.331E-14	2.368E-12	5.073E-11	1.012E-09	4.151E-17	1.268E-12
Pb-210	Pu-238	1.000E+00	1.984E-20	5.401E-19	1.230E-17	8.372E-16	4.522E-14	2.058E-12	1.205E-17	1.012E-12
Po-210	Pu-238	1.000E+00	4.916E-22	1.957E-20	6.281E-19	5.705E-17	3.427E-15	1.510E-13	2.783E-16	1.294E-11
Pu-240	Pu-240	1.000E+00	3.157E-03	3.140E-03	3.106E-03	2.987E-03	2.649E-03	1.507E-03	0.000E+00	5.538E-05
Pu-241	Pu-241	1.000E+00	5.969E-05	5.658E-05	5.084E-05	3.492E-05	1.185E-05	2.334E-07	0.000E+00	1.446E-27
Pu-241	Pu-241	2.450E-05	1.782E-06	1.694E-06	1.529E-06	1.068E-06	3.809E-07	9.365E-09	0.000E+00	0.000E+00
Pu-241	ΣDOSE(j)		6.147E-05	5.827E-05	5.236E-05	3.599E-05	1.223E-05	2.427E-07	0.000E+00	1.446E-27
Sb-125	Sb-125	7.720E-01	1.970E-01	1.525E-01	9.143E-02	1.524E-02	9.059E-05	1.296E-12	0.000E+00	0.000E+00
Sb-125	Sb-125	2.280E-01	5.818E-02	4.504E-02	2.700E-02	4.501E-03	2.675E-05	3.827E-13	0.000E+00	0.000E+00
Sb-125	ΣDOSE(j)		2.552E-01	1.976E-01	1.184E-01	1.974E-02	1.173E-04	1.679E-12	0.000E+00	0.000E+00
Te-125m	Sb-125	2.280E-01	4.534E-04	4.717E-04	2.857E-04	4.868E-05	3.101E-07	6.399E-15	0.000E+00	0.000E+00
Sr-90	Sr-90	1.000E+00	9.795E-03	9.507E-03	8.955E-03	7.257E-03	3.952E-03	4.130E-04	4.658E-09	0.000E+00
Tc-99	Tc-99	1.000E+00	7.804E-04	3.761E-04	7.281E-05	2.322E-07	1.699E-14	0.000E+00	0.000E+00	0.000E+00

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

Individual Nuclide Soil Concentration										
Parent Nuclide and Branch Fraction Indicated										
Nuclide (j)	Parent (i)	THF(i)	S(j,t), pCi/g							
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	Am-241	1.000E+00	1.000E+00	9.982E-01	9.946E-01	9.819E-01	9.468E-01	8.335E-01	5.790E-01	1.618E-01
Am-241	Pu-241	1.000E+00	0.000E+00	1.564E-03	4.466E-03	1.259E-02	2.453E-02	2.841E-02	1.993E-02	5.568E-03
Am-241	ΣS(j):		1.000E+00	9.997E-01	9.990E-01	9.945E-01	9.714E-01	8.619E-01	5.989E-01	1.673E-01
Np-237	Am-241	1.000E+00	0.000E+00	3.189E-07	9.274E-07	2.779E-06	6.252E-06	9.148E-06	6.780E-06	1.895E-06
Np-237	Np-237	1.000E+00	1.000E+00	9.710E-01	9.154E-01	7.447E-01	4.130E-01	5.247E-02	1.445E-04	1.582E-13
Np-237	Pu-241	1.000E+00	0.000E+00	2.529E-10	2.159E-09	2.000E-08	1.098E-07	2.886E-07	2.332E-07	6.521E-08
Np-237	Pu-241	2.450E-05	0.000E+00	7.633E-12	2.118E-11	5.384E-11	7.500E-11	1.867E-11	6.030E-14	6.625E-23
Np-237	ΣS(j):		1.000E+00	9.710E-01	9.154E-01	7.447E-01	4.130E-01	5.248E-02	1.515E-04	1.960E-06
U-233	Am-241	1.000E+00	0.000E+00	7.007E-13	6.174E-12	6.376E-11	4.709E-10	2.930E-09	8.906E-09	1.303E-08
U-233	Np-237	1.000E+00	0.000E+00	4.307E-06	1.254E-05	3.770E-05	8.579E-05	1.320E-04	1.175E-04	6.348E-05
U-233	Pu-241	1.000E+00	0.000E+00	3.711E-16	9.626E-15	3.107E-13	5.784E-12	7.230E-11	2.790E-10	4.334E-10
U-233	Pu-241	2.450E-05	0.000E+00	1.690E-17	1.444E-16	1.341E-15	7.420E-15	2.032E-14	1.960E-14	1.060E-14
U-233	ΣS(j):		0.000E+00	4.307E-06	1.254E-05	3.770E-05	8.579E-05	1.320E-04	1.175E-04	6.349E-05
Th-229	Am-241	1.000E+00	0.000E+00	2.212E-17	5.876E-16	2.060E-14	4.787E-13	1.133E-11	1.270E-10	9.060E-10
Th-229	Np-237	1.000E+00	0.000E+00	2.044E-10	1.803E-09	1.870E-08	1.398E-07	9.142E-07	3.268E-06	8.587E-06
Th-229	Pu-241	1.000E+00	0.000E+00	8.795E-21	6.900E-19	7.630E-17	4.586E-15	2.347E-13	3.670E-12	2.923E-11
Th-229	Pu-241	2.450E-05	0.000E+00	5.356E-22	1.391E-20	4.503E-19	8.464E-18	1.104E-16	4.985E-16	1.390E-15
Th-229	ΣS(j):		0.000E+00	2.044E-10	1.803E-09	1.870E-08	1.398E-07	9.142E-07	3.268E-06	8.588E-06
C-14	C-14	1.000E+00	1.000E+00	2.467E-10	1.501E-29	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ce-144	Ce-144	1.000E+00	1.000E+00	4.104E-01	6.913E-02	1.356E-04	2.492E-12	2.098E-39	0.000E+00	0.000E+00
Cm-243	Cm-243	2.400E-03	2.400E-03	2.342E-03	2.231E-03	1.882E-03	1.157E-03	2.105E-04	1.620E-06	6.479E-14
Cm-243	Cm-243	9.976E-01	9.976E-01	9.736E-01	9.274E-01	7.821E-01	4.807E-01	8.752E-02	6.735E-04	2.693E-11
Cm-243	ΣS(j):		1.000E+00	9.760E-01	9.296E-01	7.840E-01	4.819E-01	8.773E-02	6.751E-04	2.700E-11
Am-243	Cm-243	2.400E-03	0.000E+00	2.227E-07	6.520E-07	1.999E-06	4.786E-06	8.359E-06	8.883E-06	7.954E-06
Pu-239	Cm-243	2.400E-03	0.000E+00	3.220E-12	2.851E-11	2.993E-10	2.312E-09	1.637E-08	6.488E-08	2.040E-07
Pu-239	Cm-243	9.976E-01	0.000E+00	2.838E-05	8.309E-05	2.546E-04	6.085E-04	1.054E-03	1.088E-03	8.735E-04
Pu-239	Pu-239	1.000E+00	1.000E+00	9.997E-01	9.991E-01	9.969E-01	9.906E-01	9.690E-01	9.100E-01	7.302E-01
Pu-239	ΣS(j):		1.000E+00	9.997E-01	9.991E-01	9.971E-01	9.912E-01	9.701E-01	9.111E-01	7.311E-01
U-235	Cm-243	2.400E-03	0.000E+00	1.059E-21	2.823E-20	1.001E-18	2.395E-17	6.157E-16	8.006E-15	7.939E-14
U-235	Cm-243	9.976E-01	0.000E+00	1.403E-14	1.242E-13	1.302E-12	1.000E-11	6.942E-11	2.574E-10	6.376E-10
U-235	Pu-239	1.000E+00	0.000E+00	9.843E-10	2.949E-09	9.790E-09	2.902E-08	9.281E-08	2.475E-07	5.505E-07
U-235	ΣS(j):		0.000E+00	9.843E-10	2.949E-09	9.792E-09	2.903E-08	9.288E-08	2.477E-07	5.512E-07
Pa-231	Cm-243	2.400E-03	0.000E+00	5.608E-27	4.495E-25	5.351E-23	3.922E-21	3.551E-19	1.490E-17	5.011E-16
Pa-231	Cm-243	9.976E-01	0.000E+00	9.914E-20	2.642E-18	9.355E-17	2.233E-15	5.674E-14	7.115E-13	6.152E-12
Pa-231	Pu-239	1.000E+00	0.000E+00	1.041E-14	9.359E-14	1.035E-12	9.198E-12	9.772E-11	7.739E-10	5.522E-09
Pa-231	ΣS(j):		0.000E+00	1.041E-14	9.359E-14	1.035E-12	9.201E-12	9.777E-11	7.746E-10	5.528E-09
Ac-227	Cm-243	2.400E-03	0.000E+00	3.554E-29	8.471E-27	3.259E-24	6.579E-22	1.516E-19	1.082E-17	4.574E-16
Ac-227	Cm-243	9.976E-01	0.000E+00	7.850E-22	6.213E-20	7.078E-18	4.594E-16	2.856E-14	5.674E-13	5.813E-12

Individual Nuclide Soil Concentration									
Parent Nuclide and Branch Fraction Indicated									
Nuclide (j)	Parent (i)	THF(i)	S(j,t), pCi/g						
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02 1.000E+03
Ac-227	Pu-239	1.000E+00	0.000E+00	1.096E-16	2.910E-15	1.017E-13	2.349E-12	5.509E-11	6.337E-10 5.232E-09
Ac-227	ΣS(j):		0.000E+00	1.096E-16	2.910E-15	1.017E-13	2.349E-12	5.512E-11	6.343E-10 5.238E-09
Cm-244	Cm-244	1.350E-06	1.350E-06	1.299E-06	1.204E-06	9.206E-07	4.280E-07	2.934E-08	1.386E-11 3.175E-23
Cm-244	Cm-244	4.950E-08	4.950E-08	4.764E-08	4.413E-08	3.375E-08	1.569E-08	1.076E-09	5.082E-13 1.164E-24
Cm-244	ΣS(j):		1.399E-06	1.347E-06	1.248E-06	9.543E-07	4.437E-07	3.042E-08	1.437E-11 3.292E-23
Pu-240	Cm-244	4.950E-08	0.000E+00	5.148E-12	1.487E-11	4.352E-11	9.297E-11	1.302E-10	1.231E-10 9.362E-11
Pu-240	Pu-240	4.950E-08	4.950E-08	4.948E-08	4.944E-08	4.931E-08	4.892E-08	4.760E-08	4.401E-08 3.346E-08
Pu-240	ΣS(j):		4.950E-08	4.949E-08	4.946E-08	4.935E-08	4.901E-08	4.773E-08	4.414E-08 3.355E-08
Cm-244	Cm-244	1.000E+00	1.000E+00	9.624E-01	8.915E-01	6.819E-01	3.171E-01	2.173E-02	1.027E-05 2.352E-17
Pu-240	Cm-244	1.000E+00	0.000E+00	1.040E-04	3.003E-04	8.791E-04	1.878E-03	2.630E-03	2.488E-03 1.891E-03
U-236	Cm-244	1.000E+00	0.000E+00	1.549E-12	1.358E-11	1.381E-10	9.835E-10	5.795E-09	1.886E-08 4.347E-08
U-236	Pu-240	1.000E+00	0.000E+00	2.958E-08	8.864E-08	2.942E-07	8.714E-07	2.779E-06	7.351E-06 1.587E-05
U-236	ΣS(j):		0.000E+00	2.959E-08	8.865E-08	2.943E-07	8.724E-07	2.785E-06	7.369E-06 1.591E-05
Th-232	Cm-244	1.000E+00	0.000E+00	2.556E-23	6.766E-22	2.344E-20	5.298E-19	1.192E-17	1.361E-16 1.284E-15
Th-232	Pu-240	1.000E+00	0.000E+00	7.299E-19	6.564E-18	7.271E-17	6.488E-16	6.998E-15	5.789E-14 4.837E-13
Th-232	ΣS(j):		0.000E+00	7.299E-19	6.564E-18	7.273E-17	6.494E-16	7.010E-15	5.803E-14 4.850E-13
Ra-228	Cm-244	1.000E+00	0.000E+00	7.534E-25	5.731E-23	5.741E-21	2.767E-19	9.769E-18	1.282E-16 1.262E-15
Ra-228	Pu-240	1.000E+00	0.000E+00	2.847E-20	7.246E-19	2.217E-17	3.866E-16	5.935E-15	5.480E-14 4.758E-13
Ra-228	ΣS(j):		0.000E+00	2.847E-20	7.246E-19	2.218E-17	3.869E-16	5.945E-15	5.492E-14 4.771E-13
Th-228	Cm-244	1.000E+00	0.000E+00	5.172E-26	1.066E-23	2.618E-21	2.079E-19	9.091E-18	1.257E-16 1.257E-15
Th-228	Pu-240	1.000E+00	0.000E+00	2.416E-21	1.633E-19	1.162E-17	3.102E-16	5.597E-15	5.383E-14 4.737E-13
Th-228	ΣS(j):		0.000E+00	2.416E-21	1.633E-19	1.162E-17	3.104E-16	5.606E-15	5.395E-14 4.749E-13
Co-58	Co-58	1.000E+00	1.000E+00	2.799E-02	2.193E-05	2.951E-16	0.000E+00	0.000E+00	0.000E+00 0.000E+00
Co-60	Co-60	1.000E+00	1.000E+00	8.767E-01	6.739E-01	2.683E-01	1.932E-02	1.935E-06	7.241E-18 0.000E+00
Cs-134	Cs-134	1.000E+00	1.000E+00	7.145E-01	3.647E-01	3.466E-02	4.162E-05	2.499E-15	1.541E-44 0.000E+00
Cs-137	Cs-137	1.000E+00	1.000E+00	9.771E-01	9.328E-01	7.931E-01	4.988E-01	9.844E-02	9.540E-04 8.548E-11
Eu-152	Eu-152	7.208E-01	7.208E-01	6.843E-01	6.166E-01	4.284E-01	1.513E-01	3.962E-03	1.197E-07 1.814E-23
Eu-152	Eu-152	2.792E-01	2.792E-01	2.650E-01	2.388E-01	1.659E-01	5.861E-02	1.535E-03	4.636E-08 7.027E-24
Eu-152	ΣS(j):		1.000E+00	9.493E-01	8.555E-01	5.943E-01	2.099E-01	5.496E-03	1.661E-07 2.517E-23
Gd-152	Eu-152	2.792E-01	0.000E+00	1.746E-15	4.975E-15	1.395E-14	2.704E-14	3.334E-14	3.140E-14 2.496E-14
Eu-154	Eu-154	1.000E+00	1.000E+00	9.242E-01	7.895E-01	4.547E-01	9.403E-02	3.781E-04	5.404E-11 5.967E-35
Eu-155	Eu-155	1.000E+00	1.000E+00	8.695E-01	6.575E-01	2.471E-01	1.509E-02	8.496E-07	6.133E-19 0.000E+00
Fe-55	Fe-55	1.000E+00	1.000E+00	7.733E-01	4.625E-01	7.651E-02	4.480E-04	6.878E-12	3.253E-34 0.000E+00

Summary : RESRAD Default Parameters

File : C:\USERS\DNF\DOCUMENTS\FT CALHOUN\RESRAD INPUT FILES\LLBP EP DRILLING SPOILS\FCS LLBP EP DRILLING SPOILS DSR.RAD

Individual Nuclide Soil Concentration
Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	THF(i)	S(j,t), pCi/g							
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
H-3	H-3	1.000E+00	1.000E+00	5.435E-03	1.605E-07	2.249E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Ni-59	Ni-59	1.000E+00	1.000E+00	9.985E-01	9.954E-01	9.848E-01	9.552E-01	8.582E-01	6.322E-01	2.168E-01
Ni-63	Ni-63	1.000E+00	1.000E+00	9.923E-01	9.771E-01	9.256E-01	7.930E-01	4.615E-01	9.832E-02	4.386E-04
Pu-238	Pu-238	1.840E-09	1.840E-09	1.825E-09	1.795E-09	1.695E-09	1.439E-09	8.116E-10	1.579E-10	5.127E-13
Pu-238	Pu-238	1.000E+00	1.000E+00	9.918E-01	9.757E-01	9.214E-01	7.823E-01	4.411E-01	8.580E-02	2.786E-04
Pu-238	ΣS(j):		1.000E+00	9.918E-01	9.757E-01	9.214E-01	7.823E-01	4.411E-01	8.580E-02	2.786E-04
U-234	Pu-238	1.000E+00	0.000E+00	2.822E-06	8.390E-06	2.710E-05	7.439E-05	1.842E-04	2.648E-04	1.612E-04
Th-230	Pu-238	1.000E+00	0.000E+00	1.272E-11	1.138E-10	1.238E-09	1.050E-08	9.579E-08	5.295E-07	1.875E-06
Ra-226	Pu-238	1.000E+00	0.000E+00	1.838E-15	4.938E-14	1.798E-12	4.623E-11	1.454E-09	2.583E-08	3.213E-07
Pb-210	Pu-238	1.000E+00	0.000E+00	1.420E-17	1.132E-15	1.321E-13	9.160E-12	6.975E-10	2.001E-08	3.035E-07
Po-210	Pu-238	1.000E+00	0.000E+00	3.951E-18	6.245E-16	1.078E-13	8.555E-12	6.844E-10	1.990E-08	3.030E-07
Pu-240	Pu-240	1.000E+00	1.000E+00	9.996E-01	9.988E-01	9.961E-01	9.883E-01	9.616E-01	8.891E-01	6.759E-01
Pu-241	Pu-241	1.000E+00	1.000E+00	9.527E-01	8.648E-01	6.162E-01	2.339E-01	7.890E-03	4.913E-07	9.356E-22
Pu-241	Pu-241	2.450E-05	2.450E-05	2.334E-05	2.119E-05	1.510E-05	5.732E-06	1.933E-07	1.204E-11	2.292E-26
Pu-241	ΣS(j):		1.000E+00	9.527E-01	8.648E-01	6.162E-01	2.340E-01	7.891E-03	4.913E-07	9.356E-22
Sb-125	Sb-125	7.720E-01	7.720E-01	5.998E-01	3.621E-01	6.189E-02	3.978E-04	8.470E-12	1.019E-33	0.000E+00
Sb-125	Sb-125	2.280E-01	2.280E-01	1.771E-01	1.069E-01	1.828E-02	1.175E-04	2.501E-12	3.011E-34	0.000E+00
Sb-125	ΣS(j):		1.000E+00	7.770E-01	4.690E-01	8.017E-02	5.153E-04	1.097E-11	1.321E-33	0.000E+00
Te-125m	Sb-125	2.280E-01	0.000E+00	1.849E-01	1.135E-01	1.940E-02	1.247E-04	2.654E-12	3.195E-34	0.000E+00
Sr-90	Sr-90	1.000E+00	1.000E+00	9.749E-01	9.266E-01	7.755E-01	4.664E-01	7.869E-02	4.873E-04	9.108E-12
Tc-99	Tc-99	1.000E+00	1.000E+00	4.422E-01	8.648E-02	2.861E-04	2.341E-11	3.668E-36	0.000E+00	0.000E+00

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

RESRAD.EXE execution time = 8.99 seconds