

**Rancho Seco Nuclear Generating Station
Decommissioning Technical Basis Document**

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Applicability of Surface Soil DCGLs to Subsurface Soil Contamination

PREPARED BY: L. Brown /RA/ 04/28/05
Author Date

REVIEWED BY: G. Pillsbury /RA/ 11/14/05
Technical Reviewer Date

REVIEWED BY: M. Braun /RA/ 01/18/06
QA Reviewer Date

APPROVED BY: E. Ronningen /RA/ 2/07/06
Principal Radiological Engineer Date

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1.0 **PURPOSE**

The purpose of this Decommissioning Technical Basis Document (DTBD) is to demonstrate the applicability of surface soil DCGL concentration values to subsurface soil contamination.

2.0 **DISCUSSION**

Single nuclide $DCGL_W$ values for surface soil were developed in DTBD-04-05, DCGLs for RSNGS Industrial Area Surface Soils, [Reference 7.1]. However, subsurface soil (i.e., soil at depths greater than 15 centimeters (5.9 in) below the soil surface) contamination has been identified within the Industrial Area at RSNGS. Therefore, it is necessary to evaluate the applicability of the $DCGL_W$ values developed in DTBD-04-05 to subsurface soil contamination. This evaluation is performed in accordance with the guidance provided in Appendix I, Section 2.3.1 of NUREG-1757, Volume 2, Consolidated NMSS Decommissioning Guidance – Characterization, Survey, and Determination of Radiological Criteria, [Reference 7.2].

3.0 **DEFINITIONS**

DCGL: A derived, radionuclide-specific activity concentration within a survey unit corresponding to the release criterion. The DCGL is based on the spatial distribution of the contaminant and hence is derived differently for the nonparametric statistical test ($DCGL_W$) and the Elevated Measurement Comparison ($DCGL_{EMC}$). The $DCGL_W$ is the concentration of a radionuclide which, if distributed uniformly across a survey unit, would result in an estimated dose equal to the applicable dose limit. The $DCGL_{EMC}$ is the concentration of a radionuclide which, if distributed uniformly across a smaller limited area within a survey unit, would result in an estimated dose equal to the applicable dose limit. DCGLs are derived from activity/dose relationships through various exposure pathway scenarios.

Deterministic treatment: While using RESRAD in the probabilistic mode, deterministic treatment is the assignment of a single conservative or site-specific, measured value to a parameter rather than a statistical distribution.

FSS: Final status survey performed in preparation for license termination

Industrial Area: An approximately 87-acre fence-enclosed area containing the nuclear facility.

RESRAD: RESRAD is a computer model designed to estimate radiation doses and risks from RESidual RADioactive materials for deriving limits for radionuclides in soil.

Stochastic treatment: While using RESRAD in the probabilistic mode, stochastic treatment is the assignment of a statistical distribution for the value of a parameter.

Unity rule (mixture rule): A rule applied when more than one radionuclide is present at a concentration that is distinguishable from background and where a single concentration comparison does not apply. In this case, the mixture of radionuclides is compared against default concentrations by applying the unity rule. This is accomplished by determining: 1) the ratio between the concentration of each radionuclide in the mixture, and 2) the concentration for that radionuclide in an appropriate listing of default values. The sum of the ratios for all radionuclides in the mixture shall not exceed 1.

4.0 TECHNICAL POSITION

The surface soil single nuclide DCGL_w values are acceptable for evaluating subsurface soil contamination as discussed in Sections 6.2 and 6.3. Although the dose consequences of subsurface soil contamination have been demonstrated to be less than those for surface soil contamination for the RSNRS site, the application of surface soil DCGLs to subsurface soil contamination will bound the possibility of subsurface soil being excavated and spread on the surface, thus becoming surface soil contamination. Because of the changes in area of contamination if subsurface soil is excavated, area factors should not be applied to subsurface contamination without a special evaluation.

5.0 LIMITATIONS

The use of surface soil DCGLs for widespread subsurface soil contamination where contamination exists from the surface down to 0.5 meters is slightly non-conservative. There is an 9.05 percent increase in calculated total peak of the mean dose by increasing the contaminated soil layer thickness from 0.15 meters to 0.5 meters. This non-conservatism may be discounted unless subsurface soil contamination exists over a large area (greater than 300 m²). For areas 300 m² and smaller, the non-conservatism is covered by the area factor. For areas greater than 300 m² the non-conservatism exceeds the area factor. At 300 m² the area factor for Cs-137 (the predominant dose contributor for the radionuclide mixture) is 1.11, which is greater than the non-conservatism of 9.05 percent. Therefore, if the area of subsurface soil contamination exceeds 300 m², consideration should be given to reducing the DCGL_w values by a factor of 10 percent to remove this non-conservatism.

6.0 TECHNICAL BASES

6.1 Radionuclides of Concern and Concentration Values for Subsurface Soil Dose Calculations

A site-specific suite of 26 potential radionuclides for use at RSNRS was derived in DTBD-04-001, Radionuclides for Consideration During Rancho Seco Nuclear Generating Station Characterization or Final Status Surveys, [Reference 7.3]. Single nuclide DCGL concentration values were derived in DTBD-04-05 for each of the six radionuclides detected in the highest activity soil sample collected during site characterization soil sampling. These single nuclide DCGL

concentration values also accounted for potential dose contribution from the remaining 20 radionuclides of the site-specific suite that were not detected during analysis of the soil sample. The unity rule was then applied to the mixture of detected radionuclides (decayed to July 1, 2008 to represent the radionuclide mixture at the approximate completion of final status surveys) in DTBD-05-001, Comparison of Dose Impacts from Alternative Exposure Scenarios, [Reference 7.4] using the single nuclide DCGL concentration values to calculate maximum radionuclide concentration limits that will result in an annual dose to the industrial worker under the industrial worker scenario of 25 millirem. The unity rule is defined in the following equation:

$$\frac{C_{M(C-14)}}{DCGL_{C-14}} + \frac{C_{M(Co-60)}}{DCGL_{Co-60}} + \frac{C_{M(Ni-63)}}{DCGL_{Ni-63}} + \frac{C_{M(Sr-90)}}{DCGL_{Sr-90}} + \frac{C_{M(Cs-134)}}{DCGL_{Cs-134}} + \frac{C_{M(Cs-137)}}{DCGL_{Cs-137}} \leq 1$$

Equation 1

where:

$C_{M(x)}$ = the mixture concentration of radionuclide “x”

Applying the decayed radionuclide concentrations from DTBD-05-001 and the single nuclide DCGL values from DTBD-04-05 and solving the unity rule equation results in the following:

$$\frac{4.74}{8.33E+06} + \frac{6.66}{1.26E+01} + \frac{170}{1.52E+07} + \frac{1.28}{6.49E+03} + \frac{0.230}{2.24E+01} + \frac{948}{5.28E+01} = 18.5$$

Equation 2

Dividing both sides of Equation 2 by 18.5 to maintain the unity rule results in:

$$\frac{0.256}{8.33E+06} + \frac{0.360}{1.26E+01} + \frac{9.19}{1.52E+07} + \frac{0.0692}{6.49E+03} + \frac{0.0124}{2.24E+01} + \frac{51.2}{5.28E+01} = 1$$

Equation 3

Results of the radionuclide mixture concentrations calculated in Equation 3 are provided in Table 6-1.

Table 6-1
Maximum Allowable Radionuclide Mixture Concentrations for Alternative Scenario Evaluations

Radionuclide	Mixture Conc. (pCi/g)	Radionuclide	Mixture Conc. (pCi/g)
C-14	2.56E-01	Sr-90	6.92E-02
Co-60	3.60E-01	Cs-134	1.24E-02
Ni-63	9.19E+00	Cs-137	5.12E+01

Use of these radionuclide mixture concentrations for surface soil (top 15 centimeters) under the industrial worker scenario results in an annual dose to the industrial worker of 25 millirem¹.

6.2 Evaluation of Dose Effects from Varying Contamination Layer Thickness

Surface soil is described by the Nuclear Regulatory Commission (NRC) in NUREG-1757, Volume 2, as the top layer of the soil, which is approximately 15 centimeters (5.9 in) thick. The single nuclide DCGLs calculated in DTBD-04-005 were based on a contamination layer thickness of 15 centimeters. Actual contaminated soil thickness, however, may be considerably deeper than the top 15 centimeters. Therefore, peak of the mean dose using the maximum expected radionuclide concentrations of Table 6-1 was calculated by RESRAD v6.22 in the probabilistic mode with contaminated zone depths of 0.15, 0.5, 1, 1.5, 2, 2.5 and 3 meters (electronic files Industrial Worker Dose1.RAD, Industrial Worker Dose2.RAD, Industrial Worker Dose3.RAD, Industrial Worker Dose4.RAD, Industrial Worker Dose5.RAD, Industrial Worker Dose6.RAD and Industrial Worker Dose7.RAD). Deterministic input parameters are listed in Attachment 8.1 and stochastic parameter statistical distributions are listed in Attachment 8.2. The initial contaminated zone parameters were retained for all depths while thickness of underlying uncontaminated zones was reduced to account for the increased contaminated zone thickness.

Deterministic and probabilistic input parameters for these calculations are provided in Attachment 8.3 from the RESRAD v6.22 reports and the probabilistic total dose summary and peak of the mean dose reports are provided in Attachment 8.4. Peak of the mean nuclide dose results are summarized in Table 6-2 and depicted graphically in Figure 6-1 and Figure 6-2.

As shown in the results, calculation of DCGLs based on surface soil (top 15 centimeters) is slightly non-conservative. There is an 9.05 percent increase in calculated total peak of the mean total dose by increasing the contaminated layer thickness from 0.15 meters to 0.5 meters. However, there is little additional increase in total peak of the mean dose by increasing the contaminated layer thickness up to 3 meters. This non-conservatism may be discounted unless sub-surface soil contamination exists over a large area (greater than 300 m²). At 300 m² the area factor for Cs-137 (the predominant dose contributor for the Table 6-1 radionuclide mixture) calculated in DTBD-05-003, Soil and Structural Surface Area Factors for Use at RSNGS, [Reference 7.5] is 1.11, which is greater than the non-conservatism of 9.05 percent. The area factor for Cs-137 increases for areas less than 300 m² up to a factor of 11.3 for 1 m².

¹ The actual calculated peak of the mean dose for the industrial worker scenario as developed in DTBD-04-005 is 24.3 millirem/year (electronic file Industrial Worker Dose.RAD). The remaining 0.7 millirem/year is attributed to rounding error and potential dose from discounted radionuclides (0.6 millirem/year) as discussed in DTBD-04-005.

The steady dose increase with increasing contaminated layer thickness seen for C-14 is because the dominate exposure pathway for C-14 is inhalation. The C-14 available for inhalation is directly proportional to the total quantity of C-14 in the soil because C-14 is volatilized from sub-surface as well as surface soil.

Table 6-2

Peak of the Mean Dose vs Contaminated Layer Thickness

Nuclide	Dose (mrem/year) at Contaminated Layer Thickness						
	0.15 m	0.5 m	1.0 m	1.5 m	2.0 m	2.5 m	3.0 m
C-14	7.51E-07	2.35E-06	4.57E-06	6.83E-06	9.09E-06	1.13E-05	1.36E-05
Co-60	6.95E-01	8.12E-01	8.17E-01	8.17E-01	8.18E-01	8.18E-01	8.18E-01
Ni-63	1.48E-05	2.22E-05	2.23E-05	2.23E-05	2.23E-05	2.23E-05	2.23E-05
Sr-90	2.61E-04	2.91E-04	2.93E-04	2.94E-04	2.95E-04	2.95E-04	2.95E-04
Cs-134	1.35E-02	1.48E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02
Cs-137	2.36E+01	2.57E+01	2.57E+01	2.57E+01	2.57E+01	2.57E+01	2.57E+01
Total	2.43E+01	2.65E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01

6.3 Evaluation of Discrete Pockets of Contamination at Depth

Since subsurface soil contamination has only been observed to occur in discrete pockets, the application of surface soil DCGLs to subsurface pockets of contamination has been evaluated. For purposes of evaluation, these discrete pockets were defined as cylindrical volumes of soil 100 m² on the surface and 2 m deep. The soil was considered to be contaminated to the maximum allowable concentrations listed in Table 6-1. Peak of the mean dose calculations were performed with the pocket exposed to the surface and 0.25, 0.5, 1, 2.5, 5 and 10 meters below the surface (electronic files SS Pocket Dose1.RAD, SS Pocket Dose2.RAD, SS Pocket Dose3.RAD, SS Pocket Dose4.RAD, SS Pocket Dose5.RAD, SS Pocket Dose6.RAD and SS Pocket Dose7.RAD).

Deterministic input parameters are listed in Attachment 8.5 and stochastic parameter statistical distributions are listed in Attachment 8.6. The calculations performed did not use the simplified mathematical model developed in DTBD-04-005. Because the discrete pockets of soil contamination traverse several different soil strata, generic stochastic statistical parameter distributions were used to represent the soil physical parameters rather than the deterministic sensitive soil parameters developed in DTBD-04-005. Deterministic and probabilistic input parameters for these calculations are provided in Attachment 8.7 from the RESRAD v6.22 reports and the probabilistic peak of the mean dose reports are provided in Attachment 8.8. Peak of the mean dose results are summarized in Table 6-3 and depicted graphically in Figure 6-3. The times of the peak of the mean dose (years since performance of the FSS) are also included in Table 6-3 and depicted graphically in Figure 6-4.

Table 6-3

Peak of the Mean Dose vs Discrete Contamination Pocket Depth

	Dose (mrem/year) at Contamination Pocket Depth*						
	0 m	0.25 m	0.5 m	1.0 m	2.5 m	5.0 m	10 m
P-o-M [†]	2.23E+01	1.54E+00	4.50E-01	2.79E-01	1.36E-01	6.00E-02	2.64E-02
P-o-M Time (y)	0.00E+00	5.38E+01	2.42E+01	2.42E+01	4.12E+01	5.38E+01	7.02E+01

*Depth of top of discrete contamination pocket below ground surface

[†]Peak of the mean dose at time of peak of the mean dose

As shown in Table 6-3 and Figure 6-2, the peak of the mean dose decreases with increasing depth of the discrete pockets of contamination beneath the soil surface. Therefore, application of surface soil DCGL values to subsurface soil contamination is conservative. Although DCGL values for discrete pockets of subsurface soil contamination could be developed that are higher than the surface soil DCGL values, these subsurface soil DCGL values would be non-conservative if the subsurface soil contamination is excavated at some later date and spread on the surface, thus becoming surface soil contamination. Therefore, surface soil DCGL values should be applied to discrete pockets of subsurface soil contamination.

For the same potential soil excavation reason discussed above, surface soil area factors should not be applied to subsurface discrete pockets of contamination.

Figure 6-1
Peak of the Mean Dose vs Contaminated Layer Thickness for Principal Dose Contributors

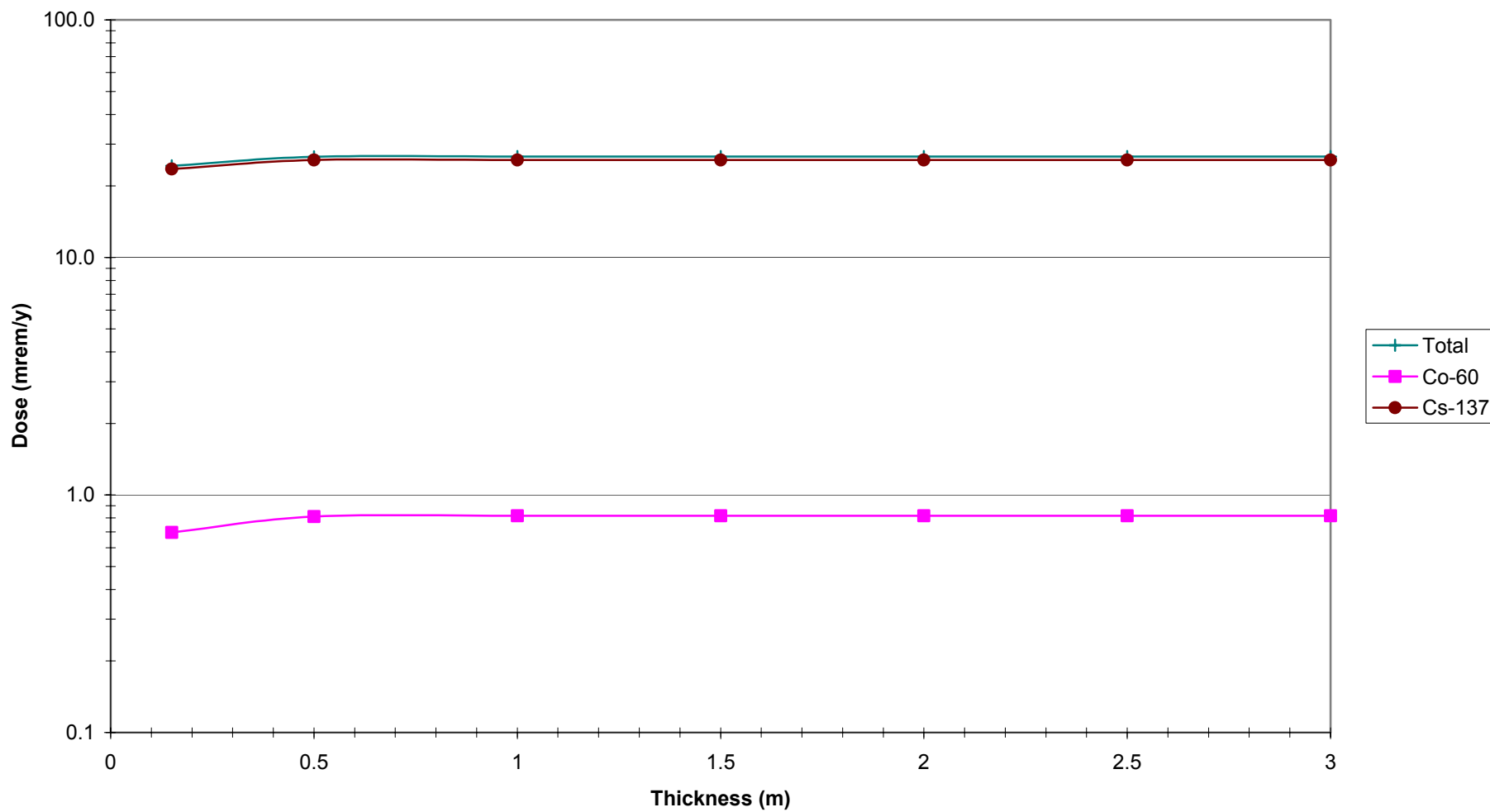


Figure 6-2
Peak of the Mean Dose vs Contaminated Layer Thickness for Minor Dose Contributors

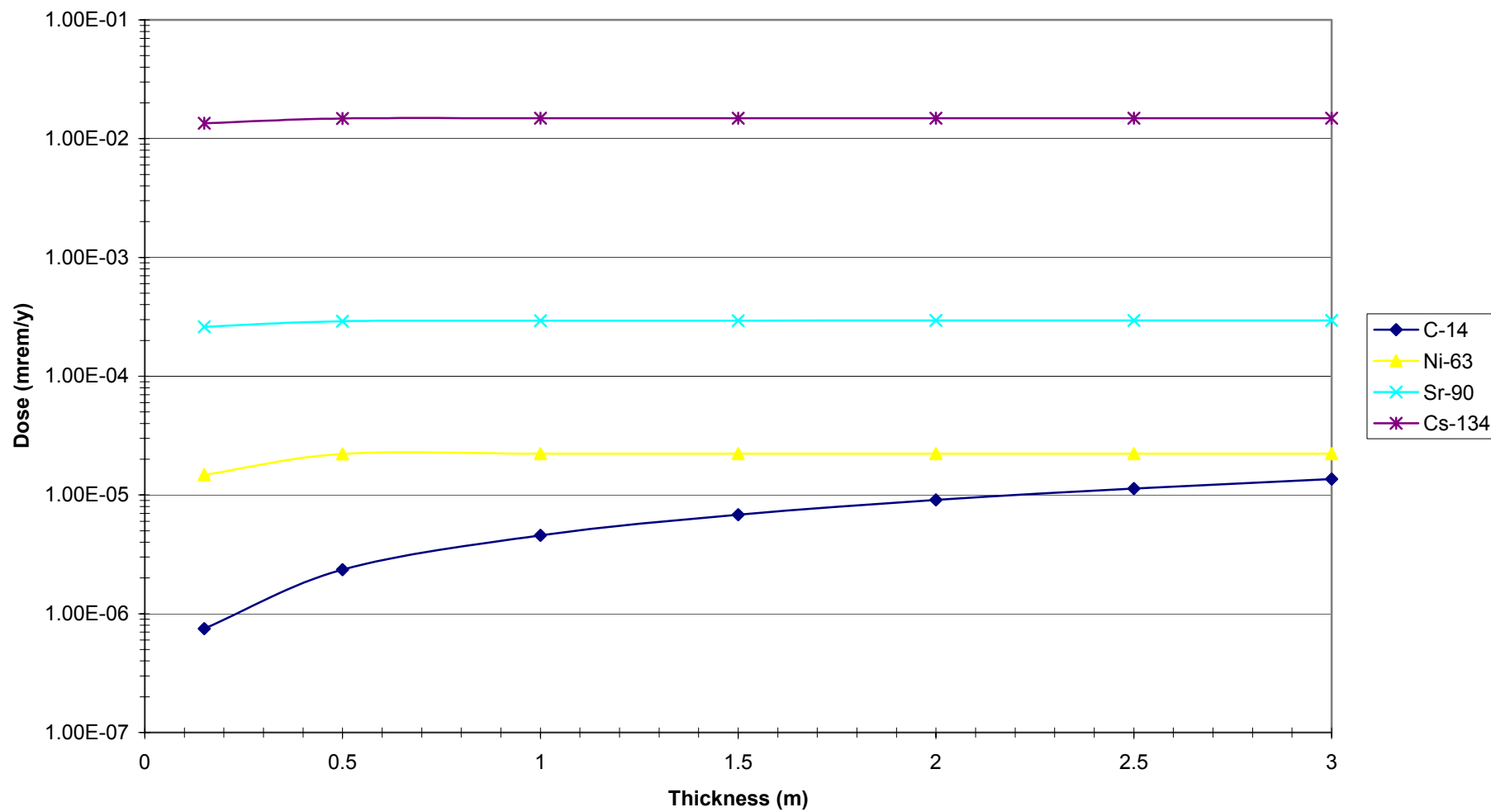


Figure 6-3
Peak of the Mean Dose vs Discrete Contamination Pocket Depth

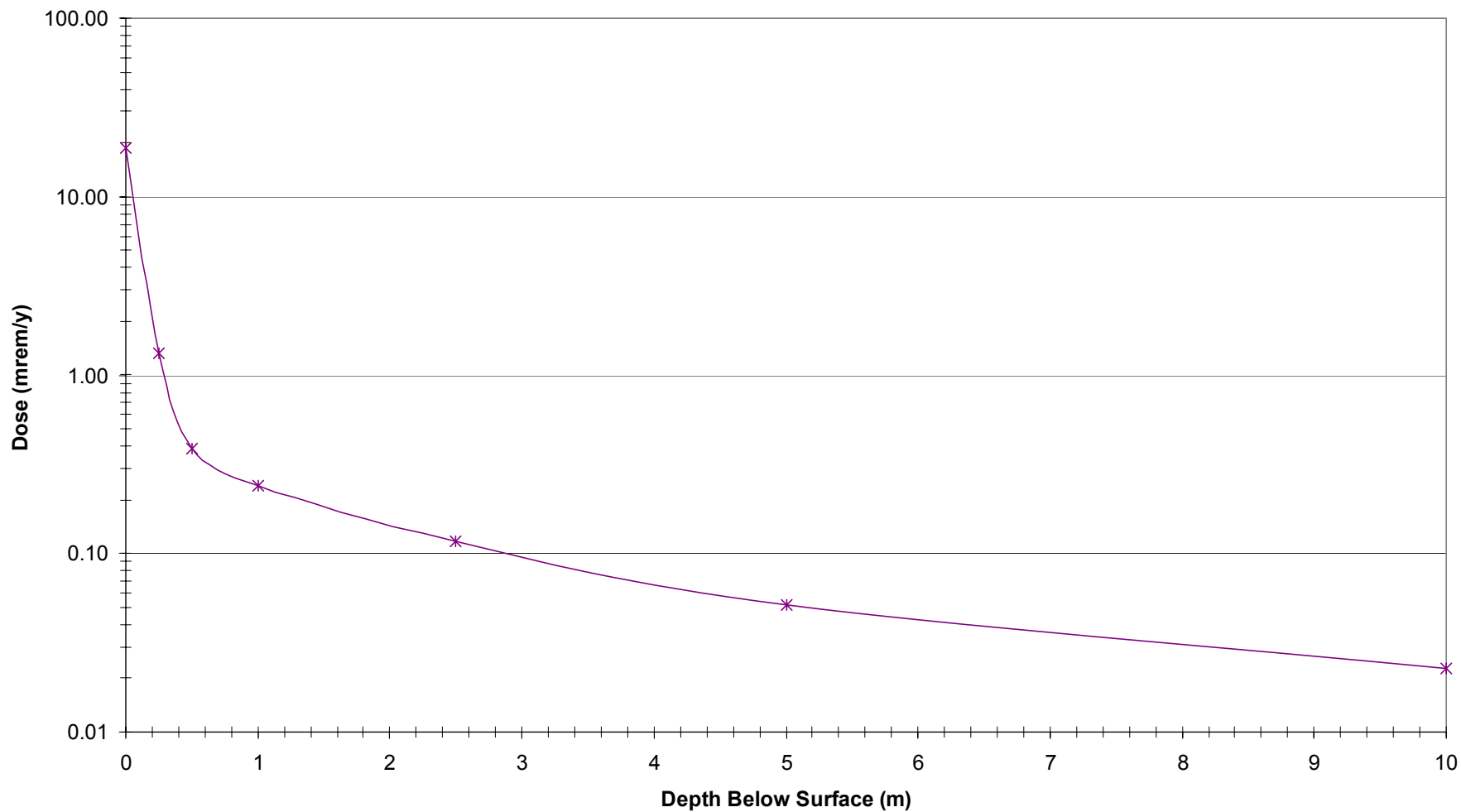
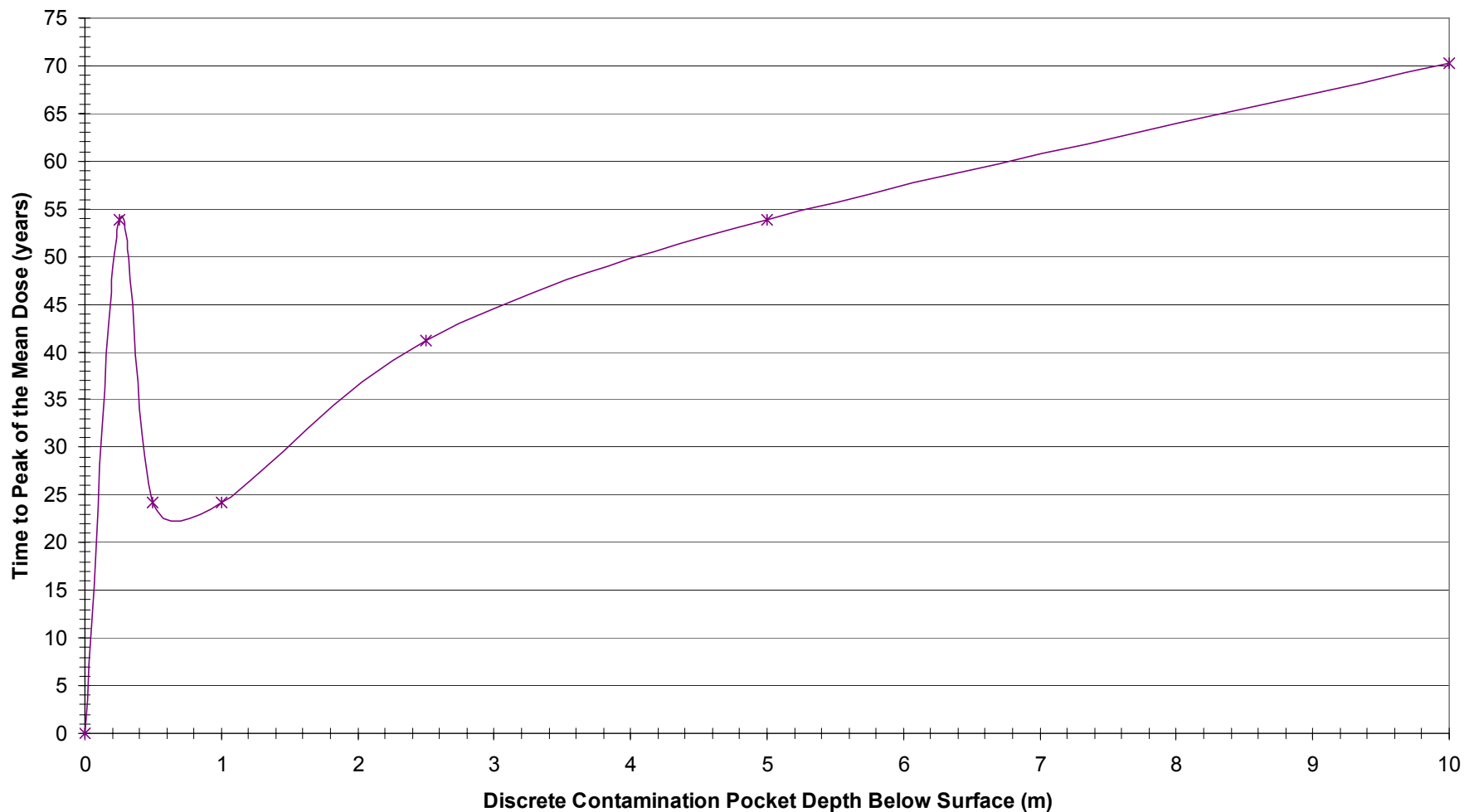


Figure 6-4
Time of the Peak of the Mean Dose vs Discrete Contamination Pocket Depth



7.0 REFERENCES

- 7.1 DTBD-04-005, Revision 0, DCGLs for RSNGS Industrial Area Surface Soils
- 7.2 U.S. Nuclear Regulatory Commission, NUREG-1757, Volume 2, Consolidated NMSS Decommissioning Guidance – Characterization, Survey, and Determination of Radiological Criteria, Final Report, September 2003
- 7.3 DTBD-04-001, Revision 2, Radionuclides for Consideration During Rancho Seco Nuclear Generating Station Characterization or Final Status Surveys
- 7.4 DTBD-05-001, Revision 0, Comparison of Dose Impacts from Alternative Exposure Scenarios
- 7.5 DTBD-05-003, Revision 0, Soil and Structural Surface Area Factors for Use at RSNGS

8.0 ATTACHMENTS

- 8.1 RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness
- 8.2 Dose Modeling Statistical Distribution Parameters – Industrial Worker Scenario
- 8.3 RESRAD v6.22 Deterministic and Probabilistic Input Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness
- 8.4 Peak of the Mean Dose Results for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness
- 8.5 RESRAD-BUILD v3.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination
- 8.6 Statistical Distribution Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination
- 8.7 RESRAD v6.22 Deterministic and Probabilistic Input Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination
- 8.8 Peak of the Mean Dose Results for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

9.0 RESPONSIBLE INDIVIDUAL

Leon E. Brown

Attachment 8.1

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Contamination					
Thickness of contaminated zone	P	2	m	0.15, 0.5, 1, 1.5, 2, 2.5, 3	Assigned value
Area of contaminated zone	P	2	m ²	10,000	Example contaminated zone area used to calculate DCGLs in DTBD-04-005
Shape of the contaminated zone	P	3	-	Circular	Default RESRAD v6.22 Physical value acceptable for this evaluation
Initial concentration of principal radionuclides in soil	P	2	pCi/g	Various	Table 6-1 maximum allowed radionuclide mixture concentrations
Initial concentration of radionuclides present in ground water	P	3	pCi/L	0	Not Used for this evaluation
Leach rate	P	3	1/yr	0	Default Physical value to invoke the calculation of this parameter via a first-order leaching model that uses the value of the soil/water distribution coefficient in the contaminated zone
Solubility limit	P	3	mol/L	0	Default Physical value – not used by RESRAD v6.22 with leach rate flag set to 0
Time since placement of material	P	3	yr	0	Default RESRAD v6.22 Physical value acceptable for this evaluation
Times for calculation	P	3	yr	1, 3, 10, 30, 100, 300, 1000	Default RESRAD v6.22 Physical value acceptable for this evaluation
Contaminated zone density	P	1	g/cm ³	1.47	Deterministic sensitive parameter value determined in DTBD-04-005
Contaminated zone distribution coefficient for C-14	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Contaminated zone distribution coefficient for Ni-63	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Contaminated zone distribution coefficient for Co-60	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Contaminated zone distribution coefficient for Sr-90	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Contaminated zone distribution coefficient for Cs-134	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Contaminated zone distribution coefficient for Cs-137	P	1	cm ³ /g	2130	Deterministic sensitive parameter value determined in DTBD-05-005
Use plant/soil ratio	NA	3	Check box	No	For purposes of this evaluation, the code should not be allowed to calculate the distribution coefficient from the plant root uptake factors
Contaminated zone field capacity	P	3	-	0.2	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
Contaminated zone erosion rate	P,B	2	m/yr	Continuous logarithmic distribution	NUREG/CR-6697, Attachment C
Contaminated zone total porosity	P	2	-	Truncated normal distribution	NUREG/CR-6697, Attachment C
Contaminated zone hydraulic conductivity	P	2	m/yr	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C, Table 3.4-1 for silt
Contaminated zone b parameter	P	2	-	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C
Carbon-Model Parameters					
Thickness of evasion layer of C-14 in soil	P	2	m	Triangular distribution	NUREG/CR-6697, Attachment C
C-14 evasion flux rate from soil	P	3	1/s	7E-07	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
C-12 concentration in local water	P	3	g/cm ³	2E-05	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
C-12 concentration in contaminated soil	P	3	g/g	0.03	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
Fraction of vegetation carbon absorbed from soil	P	3	-	0.02	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
Fraction of vegetation carbon absorbed from air	P	3	-	0.98	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
C-12 evasion flux rate from soil	P	3	1/s	1E-10	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
Grain fraction in beef cattle feed	B	3	-	0.8	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
Grain fraction in milk cow feed	B	3	-	0.2	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
DCF correction factor for gaseous forms of C-14	P	3	-	88.94	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
Soil					
Cover depth	P	2	m	0	The contamination is assumed to be on surface soil
Density of cover material	P	1	g/cm ³	Not Used	A cover is not used in this evaluation
Cover total porosity	P	3	-	Not Used	Radon is not used in this evaluation
Cover volumetric water content	P	3	-	Not Used	Radon is not used in this evaluation
Cover radon diffusion coefficient	P	3	m ² /s	Not Used	Radon is not used in this evaluation
Cover erosion rate	P,B	2	m/yr	Not Used	A cover is not used in this evaluation
Number of unsaturated zones	P	3	-	4, 3, 3, 3, 3, 3, 3	Simplified hydrogeological model assumption
Unsaturated zone 1 thickness	P	1	m	0.305, 0, 0, 0, 0, 0, 0	Thickness of silt layer above the sand layer
Unsaturated zone 1 density	P	2	g/cm ³	Normal distribution	NUREG/CR-6767, Attachment C, Table C-1 distribution for silt
Unsaturated zone 1 distribution coefficient for C-14	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 1 distribution coefficient for Ni-63	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 1 distribution coefficient for Co-60	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 1 distribution coefficient for Sr-90	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Unsaturated zone 1 distribution coefficient for Cs-134	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 1 distribution coefficient for Cs-137	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 1 total porosity	P	2	-	Truncated normal distribution	NUREG/CR-6697, Attachment C, Table 3.2-1 distribution for silt
Unsaturated zone 1 effective porosity	P	2	-	Truncated normal distribution	NUREG/CR-6767, Attachment A, Table A-7 distribution for silt
Unsaturated zone 1 field capacity	P	3	-	Truncated normal distribution	NUREG/CR-6767, Attachment A, Table A-7 distribution for silt
Unsaturated zone 1 hydraulic conductivity	P	2	m/yr	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C, Table 3.4-1 for silt
Unsaturated zone 1 soil-specific b parameter	P	2	-	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C, Table 3.5-1 for silt
Unsaturated zone 2 thickness	P	1	m	3.05, 3.005, 2.505, 2.005, 1.505, 1.005, 0.505	Thickness of fine sand layer above the siltstone layer
Unsaturated zone 2 density	P	2	g/cm ³	Normal distribution	NUREG/CR-6767, Attachment C, Table C-1 distribution for sand
Unsaturated zone 2 distribution coefficient for C-14	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 2 distribution coefficient for Ni-63	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 2 distribution coefficient for Co-60	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Unsaturated zone 2 distribution coefficient for Sr-90	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 2 distribution coefficient for Cs-134	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 2 distribution coefficient for Cs-137	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 2 total porosity	P	2	-	Truncated normal distribution	NUREG/CR-6697, Attachment C, Table 3.2-1 distribution for sand
Unsaturated zone 2 effective porosity	P	2	-	Truncated normal distribution	NUREG/CR-6767, Attachment A, Table A-1 distribution for sand
Unsaturated zone 2 field capacity	P	3	-	Truncated normal distribution	NUREG/CR-6767, Attachment A, Table A-1 distribution for sand
Unsaturated zone 2 hydraulic conductivity	P	2	m/yr	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C, Table 3.4-1 for sand
Unsaturated zone 2 soil-specific b parameter	P	2	-	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C, Table 3.5-1 for sand
Unsaturated zone 3 thickness	P	1	m	25.60	Thickness of siltstone layer
Unsaturated zone 3 density	P	2	g/cm ³	Normal distribution	NUREG/CR-6767, Attachment C, Table C-1 distribution for silt
Unsaturated zone 3 distribution coefficient for C-14	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 3 distribution coefficient for Ni-63	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 3 distribution coefficient for Co-60	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Parameter	Class¹	Priority²	Units	Parameter Value	Basis for Parameter Selection
Unsaturated zone 3 distribution coefficient for Sr-90	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 3 distribution coefficient for Cs-134	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 3 distribution coefficient for Cs-137	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 3 total porosity	P	2	-	0.35	RESRAD Data Collection Handbook Table 3.2 arithmetic mean for medium siltstone
Unsaturated zone 3 effective porosity	P	2	-	0.12	RESRAD Data Collection Handbook Table 3.2 arithmetic mean for medium siltstone
Unsaturated zone 3 field capacity	P	3	-	0.23	Total porosity minus effective porosity per RESRAD Data Collection Handbook, Section 4.1
Unsaturated zone 3 hydraulic conductivity	P	2	m/yr	Bounded lognormal-n	NUREG/CR-6697, Attachment C, Table 3.4-1 for silt
Unsaturated zone 3 soil-specific b parameter	P	2	-	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C, Table 3.5-1 for silt
Unsaturated zone 4 thickness	P	1	m	10.82	Thickness of unsaturated sandstone layer
Unsaturated zone 4 density	P	2	g/cm ³	Normal distribution	NUREG/CR-6767, Attachment C, Table C-1 distribution for sand
Unsaturated zone 4 distribution coefficient for C-14	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 4 distribution coefficient for Ni-63	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 4 distribution coefficient for Co-60	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 4 distribution coefficient for Sr-90	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Unsaturated zone 4 distribution coefficient for Cs-134	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 4 distribution coefficient for Cs-137	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 4 total porosity	P	2	-	0.35	RESRAD Data Collection Handbook Table 3.2 arithmetic mean for sandstone
Unsaturated zone 4 effective porosity	P	2	-	0.27	RESRAD Data Collection Handbook Table 3.2 arithmetic mean for sandstone
Unsaturated zone 4 field capacity	P	3	-	0.07	Total porosity minus effective porosity per RESRAD Data Collection Handbook, Section 4.1
Unsaturated zone 4 hydraulic conductivity	P	2	m/yr	10	Upper boundary value from RESRAD Data Collection Handbook, Table 5.1 for sandstone
Unsaturated zone 4 soil-specific b parameter	P	2	-	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C, Table 3.5-1 for sand
Water					
Density of saturated zone	P	1	g/cm ³	Normal distribution	NUREG/CR-6767, Attachment C, Table C-1 distribution for sand
Saturated zone distribution coefficient for C-14	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Saturated zone distribution coefficient for Ni-63	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Saturated zone distribution coefficient for Co-60	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Saturated zone distribution coefficient for Sr-90	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Saturated zone distribution coefficient for Cs-134	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Saturated zone distribution coefficient for Cs-137	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Saturated zone total porosity	P	1	-	0.34	RESRAD Data Collection Handbook Table 3.2 arithmetic mean for sandstone
Saturated zone effective porosity	P	1	-	0.27	RESRAD Data Collection Handbook Table 3.2 arithmetic mean for sandstone
Saturated zone field capacity	P	3	-	0.07	Total porosity minus effective porosity per RESRAD Data Collection Handbook, Section 4.1
Saturated zone hydraulic conductivity	P	1	m/yr	10	Upper boundary value from RESRAD Data Collection Handbook, Table 5.1 for sandstone
Saturated zone hydraulic gradient	P	2	-	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C
Saturated zone soil-specific b parameter	P	2	-	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C
Length of contaminated zone parallel to the aquifer flow	P	2	m	113	Diameter of the 10,000 m ² contaminated zone
Water table drop rate	P	3	m/yr	0.783	Site specific value applicable to the RSNGS site as reported in the FSAR, Appendix 2C
Well-pump intake depth (below water table)	P	2	m	23	Site specific value applicable to the RSNGS site as reported in the FSAR, Appendix 2C
Well pumping rate	B, P	2	m ³ /yr	Not Used	Well pumping rate is not used with the Mass-Balance model for water transport selected – well pumping rate is used to calculate a dilution factor when the Nondisposal model is selected.
Model: non-dispersion or mass balance	NA	3	-	MB	The mass-balance model was chosen as the most conservative since it assumes that all of the radionuclides released from the contaminated zone are withdrawn through the well.
Evapotranspiration coefficient	P	2	-	Uniform distribution	NUREG/CR-6697, Attachment C
Humidity in air	P	3	g/m ³	Not Used	Not used when the Radon exposure pathway is suppressed
Average annual wind speed	P	2	m/s	3.13	7 mph average annual wind speed for the years of 1930 – 1996 reported by the National Climatic Data Center for Stockton, CA (http://www.ncdc.noaa.gov/oa/documentlibrary/wind/wind1996.pdf)
Precipitation rate	P	2	m/yr	0.38	Mean annual average rainfall measured at Sacramento and Stockton

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Irrigation mode	B	3	-	Overhead	Behavioral value - ditch irrigation is not the principal method of irrigation in the local region
Irrigation rate	B	3	m/yr	0.2	Behavioral RESRAD v6.22 default value acceptable for this evaluation
Runoff coefficient	P	2	-	Uniform distribution	NUREG/CR-6697, Attachment C
Watershed area for nearby stream or pond	P	3	m ²	1.00E+07	The entire RSNRS site drains into Clay Creek
Accuracy for water soil computation	NA	3	-	0.001	Default RESRAD v6.22 value acceptable for this evaluation
Ingestion					
Fruit, vegetable, and grain consumption rate	M, B	2	kg/yr	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Leafy vegetable consumption	M, B	3	kg/yr	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Milk consumption	M, B	2	L/yr	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Meat and poultry consumption	M, B	3	kg/yr	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Fish consumption rate	M, B	3	kg/yr	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Other seafood consumption rate	M, B	3	kg/yr	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Aquatic food contaminated fraction	B, P	2	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Soil ingestion rate	M, B	2	g/yr	Triangular distribution	NUREG/CR-6697, Attachment C
Drinking water intake	M, B	2	L/yr	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Storage time for fruits, non-leafy vegetables, and grain	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Storage time for leafy vegetables	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Parameter	Class¹	Priority²	Units	Parameter Value	Basis for Parameter Selection
Storage time for milk	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Storage time for meat	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Storage time for fish	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Storage time for crustacea and mollusks	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Storage time for well water	B	3	d	1	Behavioral RESRAD v6.22 default value
Storage time for surface water	B	3	d	1	Behavioral RESRAD v6.22 default value
Storage time for livestock fodder	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Drinking water contaminated fraction	B, P	3	-	1	Default RESRAD v6.22 Behavioral/Physical value acceptable for this evaluation
Household water contaminated fraction	B, P	3	-	Not Used	Not used when the radon exposure pathway is suppressed
Livestock water contaminated fraction	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Irrigation water contaminated fraction	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Plant food contaminated fraction	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Meat contaminated fraction	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Milk contaminated fraction	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Livestock fodder intake rate for meat	M	3	kg/d	Not Used	Not used with meat and milk exposure pathways suppressed in accordance with the Industrial Worker Scenario
Livestock fodder intake rate for milk	M	3	kg/d	Not Used	Not used with meat and milk exposure pathways suppressed in accordance with the Industrial Worker Scenario
Livestock water intake rate for meat	M	3	L/d	Not Used	Not used with meat and milk exposure pathways suppressed in accordance with the Industrial Worker Scenario
Livestock water intake rate for milk	M	3	L/d	Not Used	Not used with meat and milk exposure pathways suppressed in accordance with the Industrial Worker Scenario

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Livestock intake of soil	M	3	kg/d	Not Used	Not used with meat and milk exposure pathways suppressed in accordance with the Industrial Worker Scenario
Mass loading for foliar deposition	P	3	g/m ³	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Depth of soil mixing layer	P	2	m	Triangular distribution	NUREG/CR-6697, Attachment C
Depth of roots	P	1	m	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Groundwater fractional usage for drinking water	B, P	3	-	1	Default RESRAD v6.22 Behavioral/Physical value acceptable for this evaluation
Groundwater fractional usage for household water	B, P	3	-	Not Used	Not used when the radon exposure pathway is suppressed
Groundwater fractional usage for livestock water	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Groundwater fractional usage for irrigation water	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Wet weight crop yield for non-leafy plants	P	2	kg/m ²	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Wet weight crop yield for leafy plants	P	3	kg/m ²	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Wet weight crop yield for fodder	P	3	kg/m ²	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Length of growing season for non-leafy vegetables	P	3	yr	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Length of growing season for leafy vegetables	P	3	yr	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Length of growing season for fodder	P	3	yr	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Translocation factor for non-leafy vegetables	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Translocation factor for leafy vegetables	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Parameter	Class¹	Priority²	Units	Parameter Value	Basis for Parameter Selection
Translocation factor for fodder	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Weathering removal constant	P	2	1/yr	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Dry foliar interception fraction for non-leafy vegetables	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Dry foliar interception fraction for leafy vegetables	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Dry foliar interception fraction for fodder	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Wet foliar interception fraction for non-leafy vegetables	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Wet foliar interception fraction for leafy vegetables	P	2	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Wet foliar interception fraction for fodder	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Slope factor – external	M	3	(risk/yr)/ (pCi/g)	Nuclide specific	Metabolic RESRAD v6.22 default value
Slope factor – inhalation	M	3	risk/pCi	Nuclide specific	Metabolic RESRAD v6.22 default value
Slope factor – ingestion	M	3	risk/pCi	Nuclide specific	Metabolic RESRAD v6.22 default value
Plant transfer factor	P	1	-	Nuclide specific - Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Meat transfer factor	P	2	(pCi/kg)/ (pCi/d)	Nuclide specific - Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Milk transfer factor	P	2	(pCi/L)/ (pCi/d)	Nuclide specific - Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Bioaccumulation factor for fish	P	2	(pCi/kg)/ (pCi/L)	Nuclide specific - Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Bioaccumulation factor for crustacea and mollusks	P	3	(pCi/kg)/ (pCi/L)	Nuclide specific - Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario

Occupancy (Inhalation & External Parameters)

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Inhalation rate	M, B	3	m ³ /yr	Triangular distribution	NUREG/CR-6697, Attachment C
Inhalation dose conversion factors	M	3	mrem/pCi	Nuclide Specific	Metabolic RESRAD v6.22 default value
Ingestion dose conversion factors	M	3	mrem/pCi	Nuclide Specific	Metabolic RESRAD v6.22 default value
Mass loading for inhalation	P, B	2	g/m ³	Continuous linear distribution	NUREG/CR-6697, Attachment C
Indoor dust filtration factor	P, B	2	-	Uniform distribution	NUREG/CR-6697, Attachment C
External gamma shielding factor	P	2	-	0.397	Deterministic sensitive parameter value determined in DTBD-05-005
Building foundation thickness	P	3	m	Not Used	The Radon Exposure Pathway is not used
Building foundation bulk density	P	3	g/m ³	Not Used	The Radon Exposure Pathway is not used
Building foundation total porosity	P	3	-	Not Used	The Radon Exposure Pathway is not used
Building foundation volumetric water content	P	3	-	Not Used	The Radon Exposure Pathway is not used
Building foundation radon diffusion coefficient	P	3	m ² /s	Not Used	The Radon Exposure Pathway is not used
Contaminated soil zone radon diffusion coefficient	P	3	m ² /s	Not Used	The Radon Exposure Pathway is not used
Radon vertical dimension of mixing	P	3	m	Not Used	The Radon Exposure Pathway is not used
Building air exchange rate	P, B	3	1/hr	Not Used	The Radon Exposure Pathway is not used
Building (room) height	P	3	m	Not Used	The Radon Exposure Pathway is not used
Building indoor area factor	P	3	-	Not Used	The Radon Exposure Pathway is not used
Foundation depth below ground surface	P	3	m	Not Used	The Radon Exposure Pathway is not used

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness					
Parameter	Class¹	Priority²	Units	Parameter Value	Basis for Parameter Selection
Radon-222 emanation coefficient	P	3	-	Not Used	The Radon Exposure Pathway is not used
Radon-220 emanation coefficient	P	3	-	Not Used	The Radon Exposure Pathway is not used
Indoor time fraction	B	3	-	0.114	50% of a work year (2000 hrs.) spent inside an industrial facility
Outdoor time fraction	B	3	-	0.114	50% of a work year (2000 hrs.) spent outside at an industrial facility
Exposure duration	B	3	yr	30	Behavioral RESRAD v6.22 default value

¹Parameter Classification: P = Physical; B = Behavioral; M = Metabolic

²1 = high priority parameter, 2 = medium priority parameter, 3 = low priority parameter

Attachment 8.2

Dose Modeling Statistical Distribution Parameters – Industrial Worker Scenario

RESRAD v6.22 Dose Modeling Distribution Parameters – Industrial Worker Scenario

Parameter	Priority ¹	Distribution	Distribution's Statistical Parameters ²			
			1	2	3	4
Density of saturated zone	1	Normal	1.578	0.158	-	-
Contaminated zone distribution coefficient for C-14	1	Truncated lognormal-n	2.40	3.22	0.001	0.999
Contaminated zone distribution coefficient for Ni-63	1	Truncated lognormal-n	6.05	1.46	0.001	0.999
Contaminated zone distribution coefficient for Co-60	1	Truncated lognormal-n	5.46	2.53	0.001	0.999
Contaminated zone distribution coefficient for Sr-90	1	Truncated lognormal-n	3.45	2.12	0.001	0.999
Contaminated zone distribution coefficient for Cs-134	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 1 distribution coefficient for C-14	1	Truncated lognormal-n	2.40	3.22	0.001	0.999
Unsaturated zone 1 distribution coefficient for Ni-63	1	Truncated lognormal-n	6.05	1.46	0.001	0.999
Unsaturated zone 1 distribution coefficient for Co-60	1	Truncated lognormal-n	5.46	2.53	0.001	0.999
Unsaturated zone 1 distribution coefficient for Sr-90	1	Truncated lognormal-n	3.45	2.12	0.001	0.999
Unsaturated zone 1 distribution coefficient for Cs-134	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 1 distribution coefficient for Cs-137	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 2 distribution coefficient for C-14	1	Truncated lognormal-n	2.40	3.22	0.001	0.999
Unsaturated zone 2 distribution coefficient for Ni-63	1	Truncated lognormal-n	6.05	1.46	0.001	0.999
Unsaturated zone 2 distribution coefficient for Co-60	1	Truncated lognormal-n	5.46	2.53	0.001	0.999
Unsaturated zone 2 distribution coefficient for Sr-90	1	Truncated lognormal-n	3.45	2.12	0.001	0.999
Unsaturated zone 2 distribution coefficient for Cs-134	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 2 distribution coefficient for Cs-137	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 3 distribution coefficient for C-14	1	Truncated lognormal-n	2.40	3.22	0.001	0.999
Unsaturated zone 3 distribution coefficient for Ni-63	1	Truncated lognormal-n	6.05	1.46	0.001	0.999
Unsaturated zone 3 distribution coefficient for Co-60	1	Truncated lognormal-n	5.46	2.53	0.001	0.999
Unsaturated zone 3 distribution coefficient for Sr-90	1	Truncated lognormal-n	3.45	2.12	0.001	0.999
Unsaturated zone 3 distribution coefficient for Cs-134	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 3 distribution coefficient for Cs-137	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 4 distribution coefficient for C-14	1	Truncated lognormal-n	2.40	3.22	0.001	0.999
Unsaturated zone 4 distribution coefficient for Ni-63	1	Truncated lognormal-n	6.05	1.46	0.001	0.999
Unsaturated zone 4 distribution coefficient for Co-60	1	Truncated lognormal-n	5.46	2.53	0.001	0.999
Unsaturated zone 4 distribution coefficient for Sr-90	1	Truncated lognormal-n	3.45	2.12	0.001	0.999
Unsaturated zone 4 distribution coefficient for Cs-134	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 4 distribution coefficient for Cs-137	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Saturated zone distribution coefficient for C-14	1	Truncated lognormal-n	2.40	3.22	0.001	0.999
Saturated zone distribution coefficient for Ni-63	1	Truncated lognormal-n	6.05	1.46	0.001	0.999

RESRAD v6.22 Dose Modeling Distribution Parameters – Industrial Worker Scenario

Parameter	Priority ¹	Distribution	Distribution's Statistical Parameters ²			
			1	2	3	4
Saturated zone distribution coefficient for Co-60	1	Truncated lognormal-n	5.46	2.53	0.001	0.999
Saturated zone distribution coefficient for Sr-90	1	Truncated lognormal-n	3.45	2.12	0.001	0.999
Saturated zone distribution coefficient for Cs-134	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Saturated zone distribution coefficient for Cs-137	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Contaminated zone b parameter	2	Bounded lognormal-n	1.06	0.66	0.5	30
Contaminated zone erosion rate	2	Continuous logarithmic	Default ³	-	-	-
Contaminated zone total porosity	2	Truncated normal	0.425	0.0867	0.001	0.999
Contaminated zone hydraulic conductivity	2	Bounded lognormal-n	2.66	0.475	3.302	62.2
Depth of soil mixing layer	2	Triangular	0.0	0.6	0.15	-
Drinking water intake	2	Truncated lognormal-n	6.015	0.489	0.001	0.999
Evapotranspiration coefficient	2	Uniform	0.5	0.75	-	-
Indoor dust filtration factor	2	Uniform	0.15	0.95	-	-
Mass loading for inhalation	2	Continuous linear	Default ³	-	-	-
Runoff coefficient	2	Uniform	0.1	0.8	-	-
Saturated zone b parameter	2	Bounded lognormal-n	1.06	0.66	0.5	30
Saturated zone hydraulic gradient	2	Bounded lognormal-n	-5.11	1.77	7E-05	0.5
Soil ingestion rate	2	Triangular	0	36.5	18.3	-
Unsaturated zone 1 density	2	Normal	1.33	0.202	-	-
Unsaturated zone 1 effective porosity	2	Truncated normal	0.425	0.110	0.0839	0.766
Unsaturated zone 1 hydraulic conductivity	2	Bounded lognormal-n	2.66	0.475	3.302	62.2
Unsaturated zone 1 b parameter	2	Bounded lognormal-n	1.16	0.140	2.06	4.89
Unsaturated zone 1 total porosity	2	Truncated normal	0.46	0.11	0.1161	0.7959
Unsaturated zone 2 density	2	Normal	1.578	0.158	-	-
Unsaturated zone 2 effective porosity	2	Truncated normal	0.383	0.0610	0.195	0.572
Unsaturated zone 2 hydraulic conductivity	2	Bounded lognormal-n	1.398	1.842	110	5870
Unsaturated zone 2 b parameter	2	Bounded lognormal-n	-0.0253	0.216	0.501	1.90
Unsaturated zone 2 total porosity	2	Truncated normal	0.43	0.06	0.2446	0.6154
Unsaturated zone 3 density	2	Normal	1.33	0.202	-	-
Unsaturated zone 3 hydraulic conductivity	2	Bounded lognormal-n	2.66	0.475	3.302	62.2
Unsaturated zone 3 b parameter	2	Bounded lognormal-n	1.16	0.140	2.06	4.89
Unsaturated zone 4 density	2	Normal	1.578	0.158	-	-
Unsaturated zone 4 hydraulic conductivity	2	Bounded lognormal-n	1.398	1.842	110	5870
Unsaturated zone 4 b parameter	2	Bounded lognormal-n	-0.0253	0.216	0.501	1.90
Thickness of evasion layer of C-14 in soil	2	Triangular	0.5	1.0	0.75	-
Unsaturated zone 1 field capacity	3	Truncated normal	0.236	0.0578	0.0575	0.415
Unsaturated zone 2 field capacity	3	Truncated normal	0.0607	0.0150	0.0280	0.124
Inhalation rate	3	Triangular	4,380	13,100	8,400	-

Notes:

¹ 1 = high priority parameter, 2 = medium priority parameter

² Distribution's Statistical Parameter

Bounded lognormal-n: 1 = underlying mean value, 2 = underlying standard deviation, 3 = lower limit, 4 = upper limit

Lognormal: 1 = mean, 2 = error factor

Normal: 1 = mean, 2 = standard deviation

Triangular: 1 = minimum, 2 = maximum, 3 = most likely

Truncated lognormal-n: 1 = underlying mean value, 2 = underlying standard deviation, 3 = lower quantile,
4 = upper quantile
Truncated normal: 1 = mean, 2 = standard deviation, 3 = lower quantile, 4 = upper quantile
Uniform: 1 = minimum, 2 = maximum

³Default RESRAD v6.22 distribution parameters were used

Attachment 8.3

**RESRAD v6.22 Deterministic and Probabilistic Input Parameters for Dose Modeling
Probabilistic Analysis of Varying Contamination Layer Thickness**

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.500E-01	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	9.190E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	6.920E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
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)	1.470E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.400E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.700E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	7.000E-02	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	4	1	---	NS
R015	Unsat. zone 1, thickness (m)	3.050E-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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	3.050E+00	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	4.000E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	2.000E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.000E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R015	Unsat. zone 3, thickness (m)	2.560E+01	0.000E+00	---	H(3)
R015	Unsat. zone 3, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(3)
R015	Unsat. zone 3, total porosity	3.500E-01	4.000E-01	---	TPUZ(3)
R015	Unsat. zone 3, effective porosity	1.200E-01	2.000E-01	---	EPUZ(3)
R015	Unsat. zone 3, field capacity	2.300E-01	2.000E-01	---	FCUZ(3)
R015	Unsat. zone 3, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(3)
R015	Unsat. zone 3, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(3)
R015	Unsat. zone 4, thickness (m)	1.082E+01	0.000E+00	---	H(4)
R015	Unsat. zone 4, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(4)
R015	Unsat. zone 4, total porosity	3.500E-01	4.000E-01	---	TPUZ(4)
R015	Unsat. zone 4, effective porosity	2.700E-01	2.000E-01	---	EPUZ(4)
R015	Unsat. zone 4, field capacity	7.000E-02	2.000E-01	---	FCUZ(4)
R015	Unsat. zone 4, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(4)
R015	Unsat. zone 4, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(4)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsat. zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsat. zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Unsat. zone 3 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,3)
R016	Unsat. zone 4 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,4)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.505E+00	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)

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)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,3)
R016	Unsaturated zone 4 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,4)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.143E-03	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,3)
R016	Unsaturated zone 4 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,4)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.143E-03	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	2.130E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,3)
R016	Unsaturated zone 4 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,4)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.365E-04	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,3)
R016	Unsaturated zone 4 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,4)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.143E-03	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Unsaturated zone 3 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,3)
R016	Unsaturated zone 4 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,4)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.783E-02	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPLANT

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
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)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	not used	3.000E-07	---	DIFFL
R021	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
R021	Height of the building (room) (m)	not used	2.500E+00	---	HRM
R021	Building interior area factor	not used	0.000E+00	---	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA(1)
R021	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA(2)
TITL	Number of graphical time points	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters								
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
2	VCZ	CONTINUOUS LOGARITHMIC	4 5.E-8 0 .0007	.22	.005	.95	.2			1	
3	TPCZ	TRUNCATED NORMAL	.425 .0867 .001 .999								
4	HCCZ	LOGNORMAL	3.302 62								
5	BCZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
6	DMC	TRIANGULAR	.5 .75 1								
7	DENSUZ(1)	NORMAL	1.33 .202								
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
9	TPUZ(1)	TRUNCATED NORMAL	.46 .11 .1161 .7959								
10	EPUZ(1)	TRUNCATED NORMAL	.425 .11 .0839 .766								
11	FCUZ(1)	TRUNCATED NORMAL	.236 .0578 .0575 .415								
12	HCUZ(1)	BOUNDED LOGNORMAL-N	2.66 .475 3.302 62.2								
13	BUZ(1)	BOUNDED LOGNORMAL-N	1.16 .14 2.06 4.89								
14	DENSUZ(2)	NORMAL	.383 .061								
15	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
16	TPUZ(2)	TRUNCATED NORMAL	.43 .06 .2446 .6154								
17	EPUZ(2)	TRUNCATED NORMAL	.383 .061 .195 .572								
18	FCUZ(2)	TRUNCATED NORMAL	.0607 .015 .028 .124								
19	HCUZ(2)	BOUNDED LOGNORMAL-N	1.398 1.842 110 5870								
20	BUZ(2)	BOUNDED LOGNORMAL-N	-.0253 .216 .501 1.9								
21	DENSUZ(3)	NORMAL	1.33 .202								
22	DCACTU3(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
23	HCUZ(3)	BOUNDED LOGNORMAL-N	2.66 .475 3.302 62.2								
24	BUZ(3)	BOUNDED LOGNORMAL-N	1.16 .14 2.06 4.89								
25	DENSUZ(4)	NORMAL	1.578 .158								
26	DCACTU4(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
27	HCUZ(4)	BOUNDED LOGNORMAL-N	1.398 1.842 110 5870								
28	BUZ(4)	BOUNDED LOGNORMAL-N	-.0253 .216 .501 1.9								
29	DENSAQ	NORMAL	1.578 .158								
30	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
31	HGWT	BOUNDED LOGNORMAL-N	-5.11 1.77 .00007 .5								
32	BSZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
33	EVAPTR	UNIFORM	.5 .75								
34	RUNOFF	UNIFORM	.1 .8								
35	SOIL	TRIANGULAR	0 18.3 36.5								
36	DWI	TRUNCATED LOGNORMAL-N	6.015 .489 .001 .999								
37	DM	TRIANGULAR	0 .15 .6								
38	INHALR	TRIANGULAR	4380 8400 13100								
39	MLINH	CONTINUOUS LINEAR	8 0 0	.000008	.0151	.000016	.1365	.00003	.8119		
.00004	.9495	.00006	.9937	.000076	.9983	.0001	1				
40	SHF3	UNIFORM	.15 .95								
41	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
42	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
43	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
44	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								

45	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999
46	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999
47	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
48	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters				
49	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
50	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999	
51	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
52	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
53	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
54	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
55	DCACTU3(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999	
56	DCACTU3(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
57	DCACTU3(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
58	DCACTU3(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
59	DCACTU3(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
60	DCACTU4(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999	
61	DCACTU4(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
62	DCACTU4(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
63	DCACTU4(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
64	DCACTU4(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
65	DCACTS(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999	
66	DCACTS(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
67	DCACTS(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
68	DCACTS(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
69	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	5.000E-01	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	9.190E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	6.920E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
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)	1.470E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.400E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.700E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	7.000E-02	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	3	1	---	NS
R015	Unsat. zone 1, thickness (m)	3.005E+00	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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	2.560E+01	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	3.500E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	1.200E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.300E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R015	Unsat. zone 3, thickness (m)	1.082E+01	0.000E+00	---	H(3)
R015	Unsat. zone 3, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(3)
R015	Unsat. zone 3, total porosity	3.500E-01	4.000E-01	---	TPUZ(3)
R015	Unsat. zone 3, effective porosity	2.700E-01	2.000E-01	---	EPUZ(3)
R015	Unsat. zone 3, field capacity	7.000E-02	2.000E-01	---	FCUZ(3)
R015	Unsat. zone 3, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(3)
R015	Unsat. zone 3, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(3)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsaturated zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Unsaturated zone 3 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,3)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.652E+00	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.428E-04	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.428E-04	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	2.130E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.610E-04	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.428E-04	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Unsaturated zone 3 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,3)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.135E-02	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R021	Total porosity of the 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	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters							
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
2	VCZ	CONTINUOUS LOGARITHMIC4		5.E-8	0	.0007	.22	.005	.95	.2
3	TPCZ	TRUNCATED NORMAL	.425	.0867	.001	.999				
4	HCCZ	LOGNORMAL	3.302	62						
5	BCZ	BOUNDED LOGNORMAL-N	1.06	.66	.5	30				
6	DMC	TRIANGULAR	.5	.75	1					
7	DENSUZ(1)	NORMAL	1.578	.158						
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
9	TPUZ(1)	TRUNCATED NORMAL	.43	.06	.2446	.6154				
10	EPUZ(1)	TRUNCATED NORMAL	.383	.061	.195	.572				
11	FCUZ(1)	TRUNCATED NORMAL	.0607	.015	.028	.124				
12	HCUZ(1)	BOUNDED LOGNORMAL-N	1.398	1.842	110	5870				
13	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
14	DENSUZ(2)	NORMAL	1.33	.202						
15	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
16	HCUZ(2)	BOUNDED LOGNORMAL-N	2.66	.475	3.302	62.2				
17	BUZ(2)	BOUNDED LOGNORMAL-N	1.16	.14	2.06	4.89				
18	DENSUZ(3)	NORMAL	1.578	.158						
19	DCACTU3(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
20	HCUZ(3)	BOUNDED LOGNORMAL-N	1.398	1.842	110	5870				
21	BUZ(3)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
22	DENSAQ	NORMAL	1.578	.158						
23	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
24	HGWT	BOUNDED LOGNORMAL-N	-5.11	1.77	.00007	.5				
25	BSZ	BOUNDED LOGNORMAL-N	1.06	.66	.5	30				
26	EVAPTR	UNIFORM	.5	.75						
27	RUNOFF	UNIFORM	.1	.8						
28	SOIL	TRIANGULAR	0	18.3	36.5					
29	DWI	TRUNCATED LOGNORMAL-N	6.015	.489	.001	.999				
30	DM	TRIANGULAR	0	.15	.6					
31	INHALR	TRIANGULAR	4380	8400	13100					
32	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003
.00004	.9495	.00006	.9937	.000076	.9983	.0001	1			
33	SHF3	UNIFORM	.15	.95						
34	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
35	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				
36	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
37	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
38	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
39	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				
40	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
41	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
42	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
43	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
44	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				

45	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
46	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
47	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
48	DCACTU3(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters				
49	DCACTU3(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
50	DCACTU3(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
51	DCACTU3(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
52	DCACTU3(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
53	DCACTS(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999	
54	DCACTS(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
55	DCACTS(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
56	DCACTS(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
57	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
=====	=====	=====	=====	=====	=====	=====	

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.000E+00	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	9.190E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	6.920E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
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)	1.470E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.400E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.700E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	7.000E-02	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	3	1	---	NS
R015	Unsat. zone 1, thickness (m)	2.505E+00	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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	2.560E+01	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	3.500E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	1.200E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.300E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R015	Unsat. zone 3, thickness (m)	1.082E+01	0.000E+00	---	H(3)
R015	Unsat. zone 3, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(3)
R015	Unsat. zone 3, total porosity	3.500E-01	4.000E-01	---	TPUZ(3)
R015	Unsat. zone 3, effective porosity	2.700E-01	2.000E-01	---	EPUZ(3)
R015	Unsat. zone 3, field capacity	7.000E-02	2.000E-01	---	FCUZ(3)
R015	Unsat. zone 3, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(3)
R015	Unsat. zone 3, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(3)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsaturated zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Unsaturated zone 3 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,3)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.258E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.714E-04	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.714E-04	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	2.130E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.048E-05	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.714E-04	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Unsaturated zone 3 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,3)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.675E-03	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R021	Total porosity of the 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	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters							
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
2	VCZ	CONTINUOUS LOGARITHMIC4		5.E-8	0	.0007	.22	.005	.95	.2
3	TPCZ	TRUNCATED NORMAL	.425	.0867	.001	.999				
4	HCCZ	LOGNORMAL	3.302	62						
5	BCZ	BOUNDED LOGNORMAL-N	1.06	.66	.5	30				
6	DMC	TRIANGULAR	.5	.75	1					
7	DENSUZ(1)	NORMAL	1.578	.158						
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
9	TPUZ(1)	TRUNCATED NORMAL	.43	.06	.2446	.6154				
10	EPUZ(1)	TRUNCATED NORMAL	.383	.061	.195	.572				
11	FCUZ(1)	TRUNCATED NORMAL	.0607	.015	.028	.124				
12	HCUZ(1)	BOUNDED LOGNORMAL-N	1.398	1.842	110	5870				
13	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
14	DENSUZ(2)	NORMAL	1.33	.202						
15	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
16	HCUZ(2)	BOUNDED LOGNORMAL-N	2.66	.475	3.302	62.2				
17	BUZ(2)	BOUNDED LOGNORMAL-N	1.16	.14	2.06	4.89				
18	DENSUZ(3)	NORMAL	1.578	.158						
19	DCACTU3(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
20	HCUZ(3)	BOUNDED LOGNORMAL-N	1.398	1.842	110	5870				
21	BUZ(3)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
22	DENSAQ	NORMAL	1.578	.158						
23	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
24	HGWT	BOUNDED LOGNORMAL-N	-5.11	1.77	.00007	.5				
25	BSZ	BOUNDED LOGNORMAL-N	1.06	.66	.5	30				
26	EVAPTR	UNIFORM	.5	.75						
27	RUNOFF	UNIFORM	.1	.8						
28	SOIL	TRIANGULAR	0	18.3	36.5					
29	DWI	TRUNCATED LOGNORMAL-N	6.015	.489	.001	.999				
30	DM	TRIANGULAR	0	.15	.6					
31	INHALR	TRIANGULAR	4380	8400	13100					
32	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003
.00004	.9495	.00006	.9937	.000076	.9983	.0001	1			
33	SHF3	UNIFORM	.15	.95						
34	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
35	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				
36	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
37	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
38	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
39	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				
40	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
41	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
42	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
43	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
44	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				

45	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
46	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
47	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
48	DCACTU3(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters				
49	DCACTU3(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
50	DCACTU3(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
51	DCACTU3(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
52	DCACTU3(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
53	DCACTS(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999	
54	DCACTS(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
55	DCACTS(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
56	DCACTS(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
57	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
=====	=====	=====	=====	=====	=====	=====	

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	1.500E+00	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	9.190E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	6.920E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
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)	1.470E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.400E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.700E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	7.000E-02	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	3	1	---	NS
R015	Unsat. zone 1, thickness (m)	2.005E+00	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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	2.560E+01	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	3.500E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	1.200E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.300E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R015	Unsat. zone 3, thickness (m)	1.082E+01	0.000E+00	---	H(3)
R015	Unsat. zone 3, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(3)
R015	Unsat. zone 3, total porosity	3.500E-01	4.000E-01	---	TPUZ(3)
R015	Unsat. zone 3, effective porosity	2.700E-01	2.000E-01	---	EPUZ(3)
R015	Unsat. zone 3, field capacity	7.000E-02	2.000E-01	---	FCUZ(3)
R015	Unsat. zone 3, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(3)
R015	Unsat. zone 3, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(3)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsaturated zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Unsaturated zone 3 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,3)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.505E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.143E-04	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.143E-04	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	2.130E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.365E-05	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.143E-04	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Unsaturated zone 3 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,3)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.783E-03	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R021	Total porosity of the 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	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters							
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
2	VCZ	CONTINUOUS LOGARITHMIC4		5.E-8	0	.0007	.22	.005	.95	.2
3	TPCZ	TRUNCATED NORMAL	.425	.0867	.001	.999				
4	HCCZ	LOGNORMAL	3.302	62						
5	BCZ	BOUNDED LOGNORMAL-N	1.06	.66	.5	30				
6	DMC	TRIANGULAR	.5	.75	1					
7	DENSUZ(1)	NORMAL	1.578	.158						
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
9	TPUZ(1)	TRUNCATED NORMAL	.43	.06	.2446	.6154				
10	EPUZ(1)	TRUNCATED NORMAL	.383	.061	.195	.572				
11	FCUZ(1)	TRUNCATED NORMAL	.0607	.015	.028	.124				
12	HCUZ(1)	BOUNDED LOGNORMAL-N	1.398	1.842	110	5870				
13	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
14	DENSUZ(2)	NORMAL	1.33	.202						
15	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
16	HCUZ(2)	BOUNDED LOGNORMAL-N	2.66	.475	3.302	62.2				
17	BUZ(2)	BOUNDED LOGNORMAL-N	1.16	.14	2.06	4.89				
18	DENSUZ(3)	NORMAL	1.578	.158						
19	DCACTU3(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
20	HCUZ(3)	BOUNDED LOGNORMAL-N	1.398	1.842	110	5870				
21	BUZ(3)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
22	DENSAQ	NORMAL	1.578	.158						
23	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
24	HGWT	BOUNDED LOGNORMAL-N	-5.11	1.77	.00007	.5				
25	BSZ	BOUNDED LOGNORMAL-N	1.06	.66	.5	30				
26	EVAPTR	UNIFORM	.5	.75						
27	RUNOFF	UNIFORM	.1	.8						
28	SOIL	TRIANGULAR	0	18.3	36.5					
29	DWI	TRUNCATED LOGNORMAL-N	6.015	.489	.001	.999				
30	DM	TRIANGULAR	0	.15	.6					
31	INHALR	TRIANGULAR	4380	8400	13100					
32	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003
.00004	.9495	.00006	.9937	.000076	.9983	.0001	1			
33	SHF3	UNIFORM	.15	.95						
34	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
35	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				
36	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
37	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
38	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
39	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				
40	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
41	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
42	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
43	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
44	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				

45	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
46	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
47	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
48	DCACTU3(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters				
49	DCACTU3(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
50	DCACTU3(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
51	DCACTU3(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
52	DCACTU3(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
53	DCACTS(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999	
54	DCACTS(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
55	DCACTS(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
56	DCACTS(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
57	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
=====	=====	=====	=====	=====	=====	=====	=====

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.000E+00	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	9.190E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	6.920E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
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)	1.470E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.400E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.700E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	7.000E-02	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	3	1	---	NS
R015	Unsat. zone 1, thickness (m)	1.505E+00	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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	2.560E+01	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	3.500E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	1.200E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.300E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R015	Unsat. zone 3, thickness (m)	1.082E+01	0.000E+00	---	H(3)
R015	Unsat. zone 3, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(3)
R015	Unsat. zone 3, total porosity	3.500E-01	4.000E-01	---	TPUZ(3)
R015	Unsat. zone 3, effective porosity	2.700E-01	2.000E-01	---	EPUZ(3)
R015	Unsat. zone 3, field capacity	7.000E-02	2.000E-01	---	FCUZ(3)
R015	Unsat. zone 3, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(3)
R015	Unsat. zone 3, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(3)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsaturated zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Unsaturated zone 3 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,3)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.129E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.570E-05	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.570E-05	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	2.130E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.024E-05	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.570E-05	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Unsaturated zone 3 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,3)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.838E-03	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R021	Total porosity of the 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	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters							
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
2	VCZ	CONTINUOUS LOGARITHMIC4		5.E-8	0	.0007	.22	.005	.95	.2
3	TPCZ	TRUNCATED NORMAL	.425	.0867	.001	.999				
4	HCCZ	LOGNORMAL	3.302	62						
5	BCZ	BOUNDED LOGNORMAL-N	1.06	.66	.5	30				
6	DMC	TRIANGULAR	.5	.75	1					
7	DENSUZ(1)	NORMAL	1.578	.158						
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
9	TPUZ(1)	TRUNCATED NORMAL	.43	.06	.2446	.6154				
10	EPUZ(1)	TRUNCATED NORMAL	.383	.061	.195	.572				
11	FCUZ(1)	TRUNCATED NORMAL	.0607	.015	.028	.124				
12	HCUZ(1)	BOUNDED LOGNORMAL-N	1.398	1.842	110	5870				
13	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
14	DENSUZ(2)	NORMAL	1.33	.202						
15	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
16	HCUZ(2)	BOUNDED LOGNORMAL-N	2.66	.475	3.302	62.2				
17	BUZ(2)	BOUNDED LOGNORMAL-N	1.16	.14	2.06	4.89				
18	DENSUZ(3)	NORMAL	1.578	.158						
19	DCACTU3(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
20	HCUZ(3)	BOUNDED LOGNORMAL-N	1.398	1.842	110	5870				
21	BUZ(3)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
22	DENSAQ	NORMAL	1.578	.158						
23	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
24	HGWT	BOUNDED LOGNORMAL-N	-5.11	1.77	.00007	.5				
25	BSZ	BOUNDED LOGNORMAL-N	1.06	.66	.5	30				
26	EVAPTR	UNIFORM	.5	.75						
27	RUNOFF	UNIFORM	.1	.8						
28	SOIL	TRIANGULAR	0	18.3	36.5					
29	DWI	TRUNCATED LOGNORMAL-N	6.015	.489	.001	.999				
30	DM	TRIANGULAR	0	.15	.6					
31	INHALR	TRIANGULAR	4380	8400	13100					
32	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003
.00004	.9495	.00006	.9937	.000076	.9983	.0001	1			
33	SHF3	UNIFORM	.15	.95						
34	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
35	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				
36	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
37	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
38	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
39	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				
40	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
41	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
42	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
43	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
44	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				

45	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
46	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
47	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
48	DCACTU3(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters				
49	DCACTU3(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
50	DCACTU3(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
51	DCACTU3(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
52	DCACTU3(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
53	DCACTS(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999	
54	DCACTS(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
55	DCACTS(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
56	DCACTS(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
57	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
=====	=====	=====	=====	=====	=====	=====	

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.500E+00	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	9.190E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	6.920E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
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)	1.470E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.400E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.700E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	7.000E-02	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	3	1	---	NS
R015	Unsat. zone 1, thickness (m)	1.005E+00	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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	2.560E+01	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	3.500E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	1.200E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.300E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R015	Unsat. zone 3, thickness (m)	1.082E+01	0.000E+00	---	H(3)
R015	Unsat. zone 3, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(3)
R015	Unsat. zone 3, total porosity	3.500E-01	4.000E-01	---	TPUZ(3)
R015	Unsat. zone 3, effective porosity	2.700E-01	2.000E-01	---	EPUZ(3)
R015	Unsat. zone 3, field capacity	7.000E-02	2.000E-01	---	FCUZ(3)
R015	Unsat. zone 3, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(3)
R015	Unsat. zone 3, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(3)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsaturated zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Unsaturated zone 3 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,3)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.303E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.856E-05	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.856E-05	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	2.130E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.219E-05	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.856E-05	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Unsaturated zone 3 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,3)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.270E-03	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R021	Total porosity of the 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	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters							
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
2	VCZ	CONTINUOUS LOGARITHMIC4		5.E-8	0	.0007	.22	.005	.95	.2
3	TPCZ	TRUNCATED NORMAL	.425	.0867	.001	.999				
4	HCCZ	LOGNORMAL	3.302	62						
5	BCZ	BOUNDED LOGNORMAL-N	1.06	.66	.5	30				
6	DMC	TRIANGULAR	.5	.75	1					
7	DENSUZ(1)	NORMAL	1.578	.158						
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
9	TPUZ(1)	TRUNCATED NORMAL	.43	.06	.2446	.6154				
10	EPUZ(1)	TRUNCATED NORMAL	.383	.061	.195	.572				
11	FCUZ(1)	TRUNCATED NORMAL	.0607	.015	.028	.124				
12	HCUZ(1)	BOUNDED LOGNORMAL-N	1.398	1.842	110	5870				
13	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
14	DENSUZ(2)	NORMAL	1.33	.202						
15	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
16	HCUZ(2)	BOUNDED LOGNORMAL-N	2.66	.475	3.302	62.2				
17	BUZ(2)	BOUNDED LOGNORMAL-N	1.16	.14	2.06	4.89				
18	DENSUZ(3)	NORMAL	1.578	.158						
19	DCACTU3(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
20	HCUZ(3)	BOUNDED LOGNORMAL-N	1.398	1.842	110	5870				
21	BUZ(3)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
22	DENSAQ	NORMAL	1.578	.158						
23	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
24	HGWT	BOUNDED LOGNORMAL-N	-5.11	1.77	.00007	.5				
25	BSZ	BOUNDED LOGNORMAL-N	1.06	.66	.5	30				
26	EVAPTR	UNIFORM	.5	.75						
27	RUNOFF	UNIFORM	.1	.8						
28	SOIL	TRIANGULAR	0	18.3	36.5					
29	DWI	TRUNCATED LOGNORMAL-N	6.015	.489	.001	.999				
30	DM	TRIANGULAR	0	.15	.6					
31	INHALR	TRIANGULAR	4380	8400	13100					
32	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003
.00004	.9495	.00006	.9937	.000076	.9983	.0001	1			
33	SHF3	UNIFORM	.15	.95						
34	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
35	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				
36	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
37	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
38	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
39	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				
40	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
41	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
42	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
43	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
44	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				

45	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
46	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
47	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
48	DCACTU3(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters				
49	DCACTU3(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
50	DCACTU3(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
51	DCACTU3(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
52	DCACTU3(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
53	DCACTS(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999	
54	DCACTS(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
55	DCACTS(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
56	DCACTS(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
57	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
=====	=====	=====	=====	=====	=====	=====	

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	3.000E+00	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	9.190E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	6.920E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
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)	1.470E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.400E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.700E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	7.000E-02	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	3	1	---	NS
R015	Unsat. zone 1, thickness (m)	5.050E-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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	2.560E+01	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	3.500E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	1.200E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.300E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R015	Unsat. zone 3, thickness (m)	1.082E+01	0.000E+00	---	H(3)
R015	Unsat. zone 3, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(3)
R015	Unsat. zone 3, total porosity	3.500E-01	4.000E-01	---	TPUZ(3)
R015	Unsat. zone 3, effective porosity	2.700E-01	2.000E-01	---	EPUZ(3)
R015	Unsat. zone 3, field capacity	7.000E-02	2.000E-01	---	FCUZ(3)
R015	Unsat. zone 3, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(3)
R015	Unsat. zone 3, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(3)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsaturated zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Unsaturated zone 3 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,3)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.753E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.713E-05	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.713E-05	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	2.130E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.683E-05	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.713E-05	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Unsaturated zone 3 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,3)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.892E-03	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R021	Total porosity of the 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	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters							
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
2	VCZ	CONTINUOUS LOGARITHMIC4		5.E-8	0	.0007	.22	.005	.95	.2
3	TPCZ	TRUNCATED NORMAL	.425	.0867	.001	.999				
4	HCCZ	LOGNORMAL	3.302	62						
5	BCZ	BOUNDED LOGNORMAL-N	1.06	.66	.5	30				
6	DMC	TRIANGULAR	.5	.75	1					
7	DENSUZ(1)	NORMAL	1.578	.158						
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
9	TPUZ(1)	TRUNCATED NORMAL	.43	.06	.2446	.6154				
10	EPUZ(1)	TRUNCATED NORMAL	.383	.061	.195	.572				
11	FCUZ(1)	TRUNCATED NORMAL	.0607	.015	.028	.124				
12	HCUZ(1)	BOUNDED LOGNORMAL-N	1.398	1.842	110	5870				
13	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
14	DENSUZ(2)	NORMAL	1.33	.202						
15	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
16	HCUZ(2)	BOUNDED LOGNORMAL-N	2.66	.475	3.302	62.2				
17	BUZ(2)	BOUNDED LOGNORMAL-N	1.16	.14	2.06	4.89				
18	DENSUZ(3)	NORMAL	1.578	.158						
19	DCACTU3(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
20	HCUZ(3)	BOUNDED LOGNORMAL-N	1.398	1.842	110	5870				
21	BUZ(3)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
22	DENSAQ	NORMAL	1.578	.158						
23	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
24	HGWT	BOUNDED LOGNORMAL-N	-5.11	1.77	.00007	.5				
25	BSZ	BOUNDED LOGNORMAL-N	1.06	.66	.5	30				
26	EVAPTR	UNIFORM	.5	.75						
27	RUNOFF	UNIFORM	.1	.8						
28	SOIL	TRIANGULAR	0	18.3	36.5					
29	DWI	TRUNCATED LOGNORMAL-N	6.015	.489	.001	.999				
30	DM	TRIANGULAR	0	.15	.6					
31	INHALR	TRIANGULAR	4380	8400	13100					
32	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003
.00004	.9495	.00006	.9937	.000076	.9983	.0001	1			
33	SHF3	UNIFORM	.15	.95						
34	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
35	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				
36	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
37	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
38	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
39	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				
40	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
41	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
42	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
43	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
44	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999				

45	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
46	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
47	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
48	DCACTU3(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters				
49	DCACTU3(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
50	DCACTU3(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
51	DCACTU3(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
52	DCACTU3(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
53	DCACTS(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999	
54	DCACTS(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
55	DCACTS(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
56	DCACTS(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
57	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
=====	=====	=====	=====	=====	=====	=====	=====

Attachment 8.4

Peak of the Mean Dose Results for Dose Modeling Probabilistic Analysis of Varying Contamination Layer Thickness

Probabilistic Total Dose Summary

Nuclide (j)	Peak Time	Peak Dose	t=	DOSE(j,t), mrem/yr							
				0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
C-14											
Min	0.00E+00	3.77E-07	3.77E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	1.11E-06	1.11E-06	2.73E-16	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	7.51E-07	7.51E-07	1.42E-16	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	1.43E-07	1.43E-07	6.28E-17	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60											
Min	0.00E+00	4.17E-01	4.17E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	7.11E-01	7.11E-01	6.23E-01	4.79E-01	1.91E-01	1.37E-02	1.38E-06	5.19E-18	0.00E+00	0.00E+00
Avg	0.00E+00	6.95E-01	6.95E-01	5.84E-01	4.23E-01	1.48E-01	7.78E-03	2.94E-07	4.95E-19	0.00E+00	0.00E+00
Std	0.00E+00	3.89E-02	3.89E-02	9.26E-02	1.06E-01	5.51E-02	4.59E-03	4.48E-07	1.31E-18	0.00E+00	0.00E+00
Cs-134											
Min	0.00E+00	8.63E-03	8.63E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	1.37E-02	1.37E-02	9.76E-03	4.98E-03	4.74E-04	5.69E-07	3.44E-17	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	1.35E-02	1.35E-02	9.36E-03	4.58E-03	3.96E-04	3.63E-07	8.68E-18	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	5.16E-04	5.16E-04	1.18E-03	9.18E-04	1.17E-04	1.79E-07	1.17E-17	0.00E+00	0.00E+00	0.00E+00
Cs-137											
Min	0.00E+00	1.44E+01	1.44E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.38E+01	2.38E+01	2.32E+01	2.22E+01	1.88E+01	1.18E+01	2.31E+00	2.19E-02	1.80E-09	1.80E-09
Avg	0.00E+00	2.36E+01	2.36E+01	2.27E+01	2.13E+01	1.73E+01	9.02E+00	8.37E-01	4.22E-03	2.72E-10	2.72E-10
Std	0.00E+00	7.04E-01	7.04E-01	2.42E+00	3.36E+00	3.54E+00	3.33E+00	9.43E-01	8.23E-03	5.83E-10	5.83E-10
Ni-63											
Min	0.00E+00	1.17E-06	1.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	4.22E-05	4.22E-05	4.19E-05	4.13E-05	3.92E-05	3.37E-05	1.99E-05	4.43E-06	2.30E-08	2.30E-08
Avg	0.00E+00	1.48E-05	1.48E-05	1.44E-05	1.37E-05	1.18E-05	7.40E-06	1.84E-06	1.92E-07	5.88E-10	5.88E-10
Std	0.00E+00	8.61E-06	8.61E-06	8.61E-06	8.50E-06	7.91E-06	6.58E-06	3.18E-06	5.48E-07	2.37E-09	2.37E-09
Sr-90											
Min	0.00E+00	1.03E-04	1.03E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	3.25E-04	3.25E-04	3.13E-04	2.96E-04	2.46E-04	1.48E-04	2.63E-05	1.99E-07	9.28E-15	9.28E-15
Avg	0.00E+00	2.61E-04	2.61E-04	2.33E-04	1.97E-04	1.32E-04	5.21E-05	3.11E-06	8.13E-09	1.27E-16	1.27E-16
Std	0.00E+00	3.02E-05	3.02E-05	5.73E-05	7.50E-05	7.64E-05	4.64E-05	6.10E-06	3.01E-08	8.24E-16	8.24E-16
§ALL											
Min	0.00E+00	1.48E+01	1.48E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.45E+01	2.45E+01	2.39E+01	2.27E+01	1.90E+01	1.18E+01	2.31E+00	2.19E-02	2.46E-08	2.46E-08
Avg	0.00E+00	2.43E+01	2.43E+01	2.33E+01	2.17E+01	1.75E+01	9.03E+00	8.37E-01	4.22E-03	8.61E-10	8.61E-10
Std	0.00E+00	7.26E-01	7.26E-01	2.48E+00	3.43E+00	3.57E+00	3.33E+00	9.43E-01	8.23E-03	2.74E-09	2.74E-09
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

§ALL is total dose summed for all nuclides.

RESRAD, Version 6.22 T½ Limit = 0.5 year 06/14/2005 15:09 Page 21
Probabilistic results summary : Dose for the Industrial Worker Scenario with a
0.15 m Contaminated Zone File: Industrial Worker Dose1.RAD

Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	2.434E+01

Probabilistic Total Dose Summary

Nuclide (j)	Peak Time	Peak Dose	DOSE(j,t), mrem/yr								
			t= 0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03	
C-14											
Min	0.00E+00	1.28E-06	1.28E-06	1.14E-16	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	3.45E-06	3.45E-06	8.48E-16	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	2.35E-06	2.35E-06	5.20E-16	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	4.60E-07	4.60E-07	1.38E-16	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60											
Min	0.00E+00	6.39E-01	6.39E-01	3.31E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	8.19E-01	8.19E-01	7.19E-01	5.53E-01	2.20E-01	1.59E-02	1.60E-06	6.01E-18	0.00E+00	0.00E+00
Avg	0.00E+00	8.12E-01	8.12E-01	7.05E-01	5.30E-01	1.99E-01	1.32E-02	1.07E-06	1.75E-18	0.00E+00	0.00E+00
Std	0.00E+00	1.70E-02	1.70E-02	3.88E-02	6.46E-02	4.59E-02	4.50E-03	5.68E-07	2.27E-18	0.00E+00	0.00E+00
Cs-134											
Min	0.00E+00	1.30E-02	1.30E-02	6.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	1.50E-02	1.50E-02	1.07E-02	5.48E-03	5.19E-04	6.26E-07	3.78E-17	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	1.48E-02	1.48E-02	1.05E-02	5.30E-03	4.84E-04	5.50E-07	2.79E-17	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	1.46E-04	1.46E-04	2.99E-04	4.77E-04	9.19E-05	1.51E-07	1.22E-17	0.00E+00	0.00E+00	0.00E+00
Cs-137											
Min	0.00E+00	2.57E+01	2.57E+01	2.49E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.59E+01	2.59E+01	2.54E+01	2.43E+01	2.06E+01	1.30E+01	2.57E+00	2.49E-02	2.26E-09	0.00E+00
Avg	0.00E+00	2.57E+01	2.57E+01	2.51E+01	2.39E+01	2.00E+01	1.24E+01	2.29E+00	1.21E-02	4.54E-10	0.00E+00
Std	0.00E+00	2.00E-02	2.00E-02	3.58E-02	1.67E+00	2.96E+00	2.42E+00	6.48E-01	1.16E-02	8.75E-10	0.00E+00
Ni-63											
Min	0.00E+00	6.42E-07	6.42E-07	6.37E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	4.30E-05	4.30E-05	4.27E-05	4.20E-05	3.97E-05	3.37E-05	1.88E-05	4.39E-06	2.51E-08	0.00E+00
Avg	0.00E+00	2.22E-05	2.22E-05	2.20E-05	2.15E-05	1.98E-05	1.64E-05	8.05E-06	8.81E-07	1.89E-09	0.00E+00
Std	0.00E+00	8.98E-06	8.98E-06	8.91E-06	8.90E-06	8.68E-06	7.69E-06	4.88E-06	1.13E-06	4.74E-09	0.00E+00
Sr-90											
Min	0.00E+00	2.09E-04	2.09E-04	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	3.35E-04	3.35E-04	3.29E-04	3.08E-04	2.60E-04	1.60E-04	2.89E-05	2.30E-07	1.32E-14	0.00E+00
Avg	0.00E+00	2.91E-04	2.91E-04	2.76E-04	2.50E-04	1.87E-04	9.57E-05	1.22E-05	3.88E-08	3.66E-16	0.00E+00
Std	0.00E+00	2.08E-05	2.08E-05	3.09E-05	4.83E-05	6.49E-05	5.01E-05	1.01E-05	6.65E-08	1.69E-15	0.00E+00
§ALL											
Min	0.00E+00	2.64E+01	2.64E+01	2.55E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.67E+01	2.67E+01	2.61E+01	2.48E+01	2.09E+01	1.30E+01	2.57E+00	2.49E-02	2.73E-08	0.00E+00
Avg	0.00E+00	2.65E+01	2.65E+01	2.59E+01	2.44E+01	2.02E+01	1.24E+01	2.29E+00	1.21E-02	2.34E-09	0.00E+00
Std	0.00E+00	2.67E-02	2.67E-02	5.33E-02	1.71E+00	2.99E+00	2.42E+00	6.48E-01	1.16E-02	5.45E-09	0.00E+00
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

§ALL is total dose summed for all nuclides.

RESRAD, Version 6.22 T½ Limit = 0.5 year 06/14/2005 17:27 Page 21
Probabilistic results summary : Dose for the Industrial Worker Scenario with a
0.5 m Contaminated Zone File: Industrial Worker Dose2.RAD

Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	2.655E+01

Probabilistic Total Dose Summary

Nuclide (j)	Peak Time	Peak Dose	t=	DOSE(j,t), mrem/yr							
				0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
C-14											
Min	0.00E+00	2.49E-06	2.49E-06	9.71E-16	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	6.75E-06	6.75E-06	5.98E-11	6.75E-21	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	4.57E-06	4.57E-06	2.14E-12	5.24E-23	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	9.10E-07	9.10E-07	6.05E-12	4.45E-22	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60											
Min	0.00E+00	7.22E-01	7.22E-01	4.87E-01	2.21E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	8.19E-01	8.19E-01	7.18E-01	5.52E-01	2.20E-01	1.58E-02	1.59E-06	6.02E-18	0.00E+00	0.00E+00
Avg	0.00E+00	8.17E-01	8.17E-01	7.12E-01	5.42E-01	2.08E-01	1.41E-02	1.26E-06	3.35E-18	0.00E+00	0.00E+00
Std	0.00E+00	9.09E-03	9.09E-03	2.23E-02	3.38E-02	3.33E-02	3.66E-03	5.01E-07	2.47E-18	0.00E+00	0.00E+00
Cs-134											
Min	0.00E+00	1.39E-02	1.39E-02	8.61E-03	3.30E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	1.49E-02	1.49E-02	1.06E-02	5.46E-03	5.21E-04	6.20E-07	3.74E-17	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	1.49E-02	1.49E-02	1.06E-02	5.38E-03	4.98E-04	5.73E-07	3.18E-17	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	7.55E-05	7.55E-05	1.61E-04	1.77E-04	6.28E-05	1.22E-07	1.01E-17	0.00E+00	0.00E+00	0.00E+00
Cs-137											
Min	0.00E+00	2.57E+01	2.57E+01	2.51E+01	2.40E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.57E+01	2.57E+01	2.52E+01	2.42E+01	2.06E+01	1.30E+01	2.56E+00	2.52E-02	2.33E-09	0.00E+00
Avg	0.00E+00	2.57E+01	2.57E+01	2.51E+01	2.40E+01	2.02E+01	1.25E+01	2.44E+00	1.93E-02	7.48E-10	0.00E+00
Std	0.00E+00	4.31E-03	4.31E-03	4.24E-03	1.16E-02	2.02E+00	1.95E+00	4.98E-01	9.99E-03	1.04E-09	0.00E+00
Ni-63											
Min	0.00E+00	6.42E-07	6.42E-07	6.37E-07	6.28E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	4.30E-05	4.30E-05	4.27E-05	4.21E-05	3.99E-05	3.42E-05	2.04E-05	4.62E-06	2.58E-08	0.00E+00
Avg	0.00E+00	2.23E-05	2.23E-05	2.21E-05	2.18E-05	2.03E-05	1.71E-05	9.76E-06	1.65E-06	3.36E-09	0.00E+00
Std	0.00E+00	8.99E-06	8.99E-06	8.92E-06	8.78E-06	8.48E-06	7.52E-06	4.67E-06	1.27E-06	6.13E-09	0.00E+00
Sr-90											
Min	0.00E+00	2.34E-04	2.34E-04	1.72E-04	8.83E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	3.34E-04	3.34E-04	3.26E-04	3.11E-04	2.61E-04	1.61E-04	2.96E-05	2.45E-07	1.32E-14	0.00E+00
Avg	0.00E+00	2.93E-04	2.93E-04	2.82E-04	2.62E-04	2.04E-04	1.09E-04	1.59E-05	7.94E-08	9.70E-16	0.00E+00
Std	0.00E+00	1.88E-05	1.88E-05	2.30E-05	3.20E-05	4.98E-05	4.41E-05	9.99E-06	8.60E-08	2.72E-15	0.00E+00
§ALL											
Min	0.00E+00	2.65E+01	2.65E+01	2.56E+01	2.42E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.66E+01	2.66E+01	2.59E+01	2.48E+01	2.09E+01	1.30E+01	2.56E+00	2.52E-02	2.81E-08	0.00E+00
Avg	0.00E+00	2.66E+01	2.66E+01	2.59E+01	2.46E+01	2.04E+01	1.26E+01	2.44E+00	1.93E-02	4.11E-09	0.00E+00
Std	0.00E+00	1.01E-02	1.01E-02	2.28E-02	3.60E-02	2.04E+00	1.95E+00	4.98E-01	9.99E-03	6.96E-09	0.00E+00
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§ALL is total dose summed for all nuclides.

RESRAD, Version 6.22 T½ Limit = 0.5 year 06/15/2005 09:50 Page 21
Probabilistic results summary : Dose for the Industrial Worker Scenario with a
1.0 m Contaminated Zone File: Industrial Worker Dose3.RAD

Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	2.657E+01

Probabilistic Total Dose Summary

Nuclide (j)	Peak Time	Peak Dose	t=	DOSE(j,t), mrem/yr							
				0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
C-14											
Min	0.00E+00	3.73E-06	3.73E-06	2.79E-12	2.80E-30	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	1.01E-05	1.01E-05	4.02E-09	9.68E-16	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	6.83E-06	6.83E-06	2.82E-10	1.20E-17	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	1.36E-06	1.36E-06	5.03E-10	7.10E-17	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60											
Min	0.00E+00	7.53E-01	7.53E-01	5.54E-01	3.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	8.19E-01	8.19E-01	7.18E-01	5.52E-01	2.20E-01	1.58E-02	1.59E-06	6.03E-18	0.00E+00	0.00E+00
Avg	0.00E+00	8.17E-01	8.17E-01	7.14E-01	5.45E-01	2.12E-01	1.45E-02	1.32E-06	4.24E-18	0.00E+00	0.00E+00
Std	0.00E+00	6.19E-03	6.19E-03	1.56E-02	2.49E-02	2.50E-02	3.25E-03	4.61E-07	2.15E-18	0.00E+00	0.00E+00
Cs-134											
Min	0.00E+00	1.42E-02	1.42E-02	9.23E-03	3.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	1.49E-02	1.49E-02	1.06E-02	5.42E-03	5.16E-04	6.20E-07	3.74E-17	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	1.49E-02	1.49E-02	1.06E-02	5.39E-03	5.05E-04	5.84E-07	3.29E-17	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	5.10E-05	5.10E-05	1.10E-04	1.24E-04	4.28E-05	1.08E-07	9.23E-18	0.00E+00	0.00E+00	0.00E+00
Cs-137											
Min	0.00E+00	2.57E+01	2.57E+01	2.51E+01	2.40E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.57E+01	2.57E+01	2.52E+01	2.40E+01	2.04E+01	1.29E+01	2.55E+00	2.53E-02	2.35E-09	0.00E+00
Avg	0.00E+00	2.57E+01	2.57E+01	2.51E+01	2.40E+01	2.03E+01	1.26E+01	2.45E+00	2.33E-02	1.12E-09	0.00E+00
Std	0.00E+00	4.31E-03	4.31E-03	4.22E-03	4.09E-03	1.27E+00	1.80E+00	4.78E-01	5.76E-03	1.14E-09	0.00E+00
Ni-63											
Min	0.00E+00	6.42E-07	6.42E-07	6.37E-07	6.28E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	4.30E-05	4.30E-05	4.27E-05	4.21E-05	3.99E-05	3.43E-05	2.05E-05	4.81E-06	2.80E-08	0.00E+00
Avg	0.00E+00	2.23E-05	2.23E-05	2.21E-05	2.18E-05	2.05E-05	1.73E-05	9.99E-06	2.11E-06	6.04E-09	0.00E+00
Std	0.00E+00	8.99E-06	8.99E-06	8.92E-06	8.79E-06	8.47E-06	7.48E-06	4.64E-06	1.15E-06	7.72E-09	0.00E+00
Sr-90											
Min	0.00E+00	2.42E-04	2.42E-04	2.01E-04	1.27E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	3.35E-04	3.35E-04	3.26E-04	3.11E-04	2.63E-04	1.61E-04	3.00E-05	2.45E-07	1.43E-14	0.00E+00
Avg	0.00E+00	2.94E-04	2.94E-04	2.84E-04	2.66E-04	2.12E-04	1.16E-04	1.77E-05	1.08E-07	2.10E-15	0.00E+00
Std	0.00E+00	1.83E-05	1.83E-05	2.04E-05	2.63E-05	4.04E-05	3.97E-05	9.55E-06	8.72E-08	3.87E-15	0.00E+00
§ALL											
Min	0.00E+00	2.65E+01	2.65E+01	2.57E+01	2.43E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.66E+01	2.66E+01	2.59E+01	2.46E+01	2.07E+01	1.29E+01	2.55E+00	2.53E-02	3.03E-08	0.00E+00
Avg	0.00E+00	2.66E+01	2.66E+01	2.59E+01	2.46E+01	2.05E+01	1.26E+01	2.45E+00	2.33E-02	7.16E-09	0.00E+00
Std	0.00E+00	7.63E-03	7.63E-03	1.63E-02	2.53E-02	1.29E+00	1.80E+00	4.78E-01	5.76E-03	8.66E-09	0.00E+00

§ALL is total dose summed for all nuclides.

RESRAD, Version 6.22 T½ Limit = 0.5 year 06/15/2005 10:20 Page 21
Probabilistic results summary : Dose for the Industrial Worker Scenario with a
1.5 m Contaminated Zone File: Industrial Worker Dose4.RAD

Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	2.657E+01

Probabilistic Total Dose Summary

Nuclide (j)	Peak Time	Peak Dose	t=	DOSE(j,t), mrem/yr							
				0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
C-14											
Min	0.00E+00	4.97E-06	4.97E-06	1.39E-10	5.63E-22	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	1.35E-05	1.35E-05	3.57E-08	3.93E-13	1.27E-30	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	9.09E-06	9.09E-06	3.95E-09	7.36E-15	5.93E-33	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	1.81E-06	1.81E-06	5.09E-09	3.24E-14	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60											
Min	0.00E+00	7.68E-01	7.68E-01	5.91E-01	3.49E-01	5.53E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	8.19E-01	8.19E-01	7.18E-01	5.52E-01	2.20E-01	1.58E-02	1.59E-06	6.03E-18	0.00E+00	0.00E+00
Avg	0.00E+00	8.18E-01	8.18E-01	7.15E-01	5.47E-01	2.14E-01	1.47E-02	1.35E-06	4.50E-18	0.00E+00	0.00E+00
Std	0.00E+00	4.70E-03	4.70E-03	1.20E-02	1.97E-02	1.77E-02	2.81E-03	4.30E-07	2.05E-18	0.00E+00	0.00E+00
Cs-134											
Min	0.00E+00	1.44E-02	1.44E-02	9.56E-03	4.23E-03	2.44E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	1.49E-02	1.49E-02	1.06E-02	5.42E-03	5.16E-04	6.24E-07	3.74E-17	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	1.49E-02	1.49E-02	1.06E-02	5.40E-03	5.09E-04	5.92E-07	3.36E-17	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	3.85E-05	3.85E-05	8.36E-05	9.58E-05	2.35E-05	9.04E-08	8.57E-18	0.00E+00	0.00E+00	0.00E+00
Cs-137											
Min	0.00E+00	2.57E+01	2.57E+01	2.51E+01	2.40E+01	1.97E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.57E+01	2.57E+01	2.52E+01	2.40E+01	2.04E+01	1.29E+01	2.58E+00	2.50E-02	2.36E-09	2.36E-09
Avg	0.00E+00	2.57E+01	2.57E+01	2.51E+01	2.40E+01	2.04E+01	1.27E+01	2.46E+00	2.38E-02	1.39E-09	1.39E-09
Std	0.00E+00	4.31E-03	4.31E-03	4.22E-03	4.06E-03	3.95E-02	1.48E+00	4.55E-01	5.26E-03	1.12E-09	1.12E-09
Ni-63											
Min	0.00E+00	6.42E-07	6.42E-07	6.37E-07	6.28E-07	5.97E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	4.31E-05	4.31E-05	4.27E-05	4.21E-05	4.00E-05	3.44E-05	2.05E-05	4.82E-06	2.83E-08	2.83E-08
Avg	0.00E+00	2.23E-05	2.23E-05	2.21E-05	2.18E-05	2.06E-05	1.75E-05	1.01E-05	2.23E-06	7.65E-09	7.65E-09
Std	0.00E+00	8.99E-06	8.99E-06	8.92E-06	8.79E-06	8.34E-06	7.42E-06	4.62E-06	1.11E-06	8.05E-09	8.05E-09
Sr-90											
Min	0.00E+00	2.47E-04	2.47E-04	2.15E-04	1.52E-04	4.33E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	3.35E-04	3.35E-04	3.26E-04	3.11E-04	2.63E-04	1.62E-04	3.02E-05	2.49E-07	1.42E-14	1.42E-14
Avg	0.00E+00	2.95E-04	2.95E-04	2.85E-04	2.68E-04	2.17E-04	1.21E-04	1.88E-05	1.21E-07	2.95E-15	2.95E-15
Std	0.00E+00	1.81E-05	1.81E-05	1.93E-05	2.32E-05	3.33E-05	3.58E-05	9.18E-06	8.77E-08	4.40E-15	4.40E-15
§ALL											
Min	0.00E+00	2.65E+01	2.65E+01	2.58E+01	2.44E+01	1.99E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.66E+01	2.66E+01	2.59E+01	2.46E+01	2.07E+01	1.30E+01	2.58E+00	2.50E-02	3.07E-08	3.07E-08
Avg	0.00E+00	2.66E+01	2.66E+01	2.59E+01	2.46E+01	2.06E+01	1.27E+01	2.46E+00	2.38E-02	9.04E-09	9.04E-09
Std	0.00E+00	6.45E-03	6.45E-03	1.28E-02	2.02E-02	4.39E-02	1.48E+00	4.55E-01	5.26E-03	8.95E-09	8.95E-09
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

§ALL is total dose summed for all nuclides.

RESRAD, Version 6.22 T½ Limit = 0.5 year 06/15/2005 10:42 Page 21
Probabilistic results summary : Dose for the Industrial Worker Scenario with a
2.0 m Contaminated Zone File: Industrial Worker Dose5.RAD

Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	2.657E+01

Probabilistic Total Dose Summary

Nuclide (j)	Peak Time	Peak Dose	t=	DOSE(j,t), mrem/yr							
				0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
C-14											
Min	0.00E+00	6.19E-06	6.19E-06	1.53E-09	8.16E-18	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	1.68E-05	1.68E-05	1.39E-07	1.51E-11	1.68E-25	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	1.13E-05	1.13E-05	2.12E-08	4.00E-13	1.03E-27	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	2.26E-06	2.26E-06	2.14E-08	1.39E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60											
Min	0.00E+00	7.78E-01	7.78E-01	6.14E-01	3.82E-01	7.29E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	8.19E-01	8.19E-01	7.18E-01	5.52E-01	2.20E-01	1.58E-02	1.59E-06	6.03E-18	0.00E+00	0.00E+00
Avg	0.00E+00	8.18E-01	8.18E-01	7.16E-01	5.48E-01	2.15E-01	1.49E-02	1.38E-06	4.64E-18	0.00E+00	0.00E+00
Std	0.00E+00	3.78E-03	3.78E-03	9.75E-03	1.63E-02	1.53E-02	2.65E-03	3.99E-07	1.97E-18	0.00E+00	0.00E+00
Cs-134											
Min	0.00E+00	1.45E-02	1.45E-02	9.77E-03	4.45E-03	2.83E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	1.49E-02	1.49E-02	1.06E-02	5.42E-03	5.16E-04	6.20E-07	3.74E-17	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	1.49E-02	1.49E-02	1.06E-02	5.40E-03	5.10E-04	5.96E-07	3.41E-17	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	3.09E-05	3.09E-05	6.74E-05	7.80E-05	1.96E-05	8.60E-08	7.98E-18	0.00E+00	0.00E+00	0.00E+00
Cs-137											
Min	0.00E+00	2.57E+01	2.57E+01	2.51E+01	2.40E+01	2.04E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.57E+01	2.57E+01	2.52E+01	2.40E+01	2.04E+01	1.29E+01	2.55E+00	2.51E-02	2.38E-09	0.00E+00
Avg	0.00E+00	2.57E+01	2.57E+01	2.51E+01	2.40E+01	2.04E+01	1.27E+01	2.48E+00	2.39E-02	1.60E-09	0.00E+00
Std	0.00E+00	4.31E-03	4.31E-03	4.21E-03	4.04E-03	3.60E-03	1.48E+00	4.11E-01	5.09E-03	1.07E-09	0.00E+00
Ni-63											
Min	0.00E+00	6.42E-07	6.42E-07	6.37E-07	6.28E-07	5.97E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	4.31E-05	4.31E-05	4.27E-05	4.21E-05	4.00E-05	3.45E-05	2.05E-05	4.82E-06	3.06E-08	0.00E+00
Avg	0.00E+00	2.23E-05	2.23E-05	2.21E-05	2.18E-05	2.07E-05	1.75E-05	1.02E-05	2.28E-06	9.18E-09	0.00E+00
Std	0.00E+00	8.99E-06	8.99E-06	8.92E-06	8.79E-06	8.35E-06	7.41E-06	4.57E-06	1.10E-06	8.36E-09	0.00E+00
Sr-90											
Min	0.00E+00	2.50E-04	2.50E-04	2.22E-04	1.69E-04	5.99E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	3.36E-04	3.36E-04	3.26E-04	3.11E-04	2.63E-04	1.62E-04	3.03E-05	2.52E-07	1.42E-14	0.00E+00
Avg	0.00E+00	2.95E-04	2.95E-04	2.86E-04	2.69E-04	2.20E-04	1.24E-04	1.97E-05	1.29E-07	3.73E-15	0.00E+00
Std	0.00E+00	1.80E-05	1.80E-05	1.87E-05	2.14E-05	2.97E-05	3.34E-05	8.79E-06	8.69E-08	4.81E-15	0.00E+00
§ALL											
Min	0.00E+00	2.65E+01	2.65E+01	2.58E+01	2.44E+01	2.05E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.66E+01	2.66E+01	2.59E+01	2.46E+01	2.07E+01	1.29E+01	2.55E+00	2.51E-02	3.29E-08	0.00E+00
Avg	0.00E+00	2.66E+01	2.66E+01	2.59E+01	2.46E+01	2.06E+01	1.27E+01	2.48E+00	2.39E-02	1.08E-08	0.00E+00
Std	0.00E+00	5.81E-03	5.81E-03	1.07E-02	1.68E-02	1.59E-02	1.48E+00	4.11E-01	5.09E-03	9.19E-09	0.00E+00
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

§ALL is total dose summed for all nuclides.

RESRAD, Version 6.22 T½ Limit = 0.5 year 06/15/2005 11:22 Page 21
Probabilistic results summary : Dose for the Industrial Worker Scenario with a
2.5 m Contaminated Zone File: Industrial Worker Dose6.RAD

Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	2.657E+01

Probabilistic Total Dose Summary

Nuclide (j)	Peak Time	Peak Dose	t=	DOSE(j,t), mrem/yr							
				0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
C-14											
Min	0.00E+00	7.38E-06	7.38E-06	7.83E-09	2.65E-15	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.00E-05	2.00E-05	3.51E-07	1.75E-10	4.28E-22	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	1.36E-05	1.36E-05	6.87E-08	6.30E-12	3.03E-24	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	2.70E-06	2.70E-06	5.68E-08	1.78E-11	2.78E-23	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Co-60											
Min	0.00E+00	7.85E-01	7.85E-01	6.30E-01	4.07E-01	8.76E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	8.19E-01	8.19E-01	7.18E-01	5.52E-01	2.20E-01	1.58E-02	1.59E-06	6.03E-18	0.00E+00	0.00E+00
Avg	0.00E+00	8.18E-01	8.18E-01	7.16E-01	5.48E-01	2.16E-01	1.50E-02	1.40E-06	4.76E-18	0.00E+00	0.00E+00
Std	0.00E+00	3.17E-03	3.17E-03	8.21E-03	1.39E-02	1.35E-02	2.28E-03	3.84E-07	1.89E-18	0.00E+00	0.00E+00
Cs-134											
Min	0.00E+00	1.45E-02	1.45E-02	9.90E-03	4.60E-03	3.13E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	1.49E-02	1.49E-02	1.06E-02	5.42E-03	5.16E-04	6.25E-07	3.74E-17	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	1.49E-02	1.49E-02	1.06E-02	5.41E-03	5.11E-04	6.01E-07	3.44E-17	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	2.59E-05	2.59E-05	5.65E-05	6.57E-05	1.69E-05	6.96E-08	7.72E-18	0.00E+00	0.00E+00	0.00E+00
Cs-137											
Min	0.00E+00	2.57E+01	2.57E+01	2.51E+01	2.40E+01	2.04E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.57E+01	2.57E+01	2.52E+01	2.40E+01	2.04E+01	1.30E+01	2.55E+00	2.53E-02	2.37E-09	0.00E+00
Avg	0.00E+00	2.57E+01	2.57E+01	2.51E+01	2.40E+01	2.04E+01	1.28E+01	2.48E+00	2.40E-02	1.76E-09	0.00E+00
Std	0.00E+00	4.31E-03	4.31E-03	4.21E-03	4.04E-03	3.55E-03	1.12E+00	4.11E-01	4.90E-03	1.00E-09	0.00E+00
Ni-63											
Min	0.00E+00	6.42E-07	6.42E-07	6.37E-07	6.28E-07	5.97E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	4.31E-05	4.31E-05	4.27E-05	4.21E-05	4.00E-05	3.45E-05	2.06E-05	4.82E-06	3.06E-08	0.00E+00
Avg	0.00E+00	2.23E-05	2.23E-05	2.21E-05	2.18E-05	2.07E-05	1.77E-05	1.03E-05	2.31E-06	1.05E-08	0.00E+00
Std	0.00E+00	8.99E-06	8.99E-06	8.93E-06	8.79E-06	8.35E-06	7.38E-06	4.57E-06	1.10E-06	8.33E-09	0.00E+00
Sr-90											
Min	0.00E+00	2.51E-04	2.51E-04	2.28E-04	1.81E-04	7.45E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	3.36E-04	3.36E-04	3.26E-04	3.11E-04	2.63E-04	1.65E-04	3.03E-05	2.54E-07	1.42E-14	0.00E+00
Avg	0.00E+00	2.95E-04	2.95E-04	2.86E-04	2.70E-04	2.22E-04	1.27E-04	2.04E-05	1.36E-07	4.31E-15	0.00E+00
Std	0.00E+00	1.80E-05	1.80E-05	1.84E-05	2.03E-05	2.71E-05	3.02E-05	8.49E-06	8.55E-08	4.96E-15	0.00E+00
§ALL											
Min	0.00E+00	2.65E+01	2.65E+01	2.58E+01	2.44E+01	2.05E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.66E+01	2.66E+01	2.59E+01	2.46E+01	2.07E+01	1.30E+01	2.55E+00	2.53E-02	3.30E-08	0.00E+00
Avg	0.00E+00	2.66E+01	2.66E+01	2.59E+01	2.46E+01	2.06E+01	1.28E+01	2.48E+00	2.40E-02	1.22E-08	0.00E+00
Std	0.00E+00	5.42E-03	5.42E-03	9.30E-03	1.45E-02	1.41E-02	1.13E+00	4.11E-01	4.90E-03	9.07E-09	0.00E+00

§ALL is total dose summed for all nuclides.

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 Probabilistic results summary : Dose for the Industrial Worker Scenario with a
 3.0 m Contaminated Zone File: Industrial Worker Dose7.RAD
 Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	2.657E+01

Attachment 8.5

**RESRAD-BUILD v3.22 Parameters for Dose Modeling Probabilistic Analysis of
Discrete Pockets of Contamination**

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Contamination					
Thickness of contaminated zone	P	2	m	2	Assigned value for depth of discrete pocket of contamination
Area of contaminated zone	P	2	m ²	100	Assigned surface area of discrete pocket of contamination
Shape of the contaminated zone	P	3	-	Circular	Default RESRAD v6.22 Physical value acceptable for this evaluation
Initial concentration of principal radionuclides in soil	P	2	pCi/g	Various	Table 6-1 maximum allowable radionuclide mixture concentrations
Initial concentration of radionuclides present in ground water	P	3	pCi/L	0	Not Used for this evaluation
Leach rate	P	3	1/yr	0	Default Physical value to invoke the calculation of this parameter via a first-order leaching model that uses the value of the soil/water distribution coefficient in the contaminated zone
Solubility limit	P	3	mol/L	0	Default Physical value – not used by RESRAD v6.22 with leach rate flag set to 0
Time since placement of material	P	3	yr	0	Default RESRAD v6.22 Physical value acceptable for this evaluation
Times for calculation	P	3	yr	1, 3, 10, 30, 100, 300, 1000	Default RESRAD v6.22 Physical value acceptable for this evaluation
Contaminated zone density	P	1	g/cm ³	Truncated normal distribution	NUREG/CR-6767, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Contaminated zone distribution coefficient for C-14	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Contaminated zone distribution coefficient for Ni-63	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Contaminated zone distribution coefficient for Co-60	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Contaminated zone distribution coefficient for Sr-90	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Contaminated zone distribution coefficient for Cs-134	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Contaminated zone distribution coefficient for Cs-137	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Use plant/soil ratio	NA	3	Check box	No	For purposes of this evaluation, the code should not be allowed to calculate the distribution coefficient from the plant root uptake factors
Contaminated zone field capacity	P	3	-	0.2	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
Contaminated zone erosion rate	P,B	2	m/yr	Continuous logarithmic distribution	NUREG/CR-6697, Attachment C (RESRAD default values)
Contaminated zone total porosity	P	2	-	Truncated normal distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Contaminated zone hydraulic conductivity	P	2	m/yr	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Contaminated zone b parameter	P	2	-	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Carbon-Model Parameters					
Thickness of evasion layer of C-14 in soil	P	2	m	Triangular distribution	NUREG/CR-6697, Attachment C
C-14 evasion flux rate from soil	P	3	1/s	7E-07	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
C-12 concentration in local water	P	3	g/cm ³	2E-05	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
C-12 concentration in contaminated soil	P	3	g/g	0.03	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
Fraction of vegetation carbon absorbed from soil	P	3	-	0.02	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
Fraction of vegetation carbon absorbed from air	P	3	-	0.98	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
C-12 evasion flux rate from soil	P	3	1/s	1E-10	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
Grain fraction in beef cattle feed	B	3	-	0.8	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
Grain fraction in milk cow feed	B	3	-	0.2	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
DCF correction factor for gaseous forms of C-14	P	3	-	88.94	Default RESRAD v6.22 Priority 3 Physical value acceptable for this evaluation
Soil					
Cover depth	P	2	m	0, 0.25, 0.5, 1, 2.5, 5 and 10	Depth of discrete contamination surface below the soil surface
Density of cover material	P	1	g/cm ³	Truncated normal distribution	NUREG/CR-6767, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Cover total porosity	P	3	-	Not Used	Radon is not used in this evaluation
Cover volumetric water content	P	3	-	Not Used	Radon is not used in this evaluation
Cover radon diffusion coefficient	P	3	m ² /s	Not Used	Radon is not used in this evaluation
Cover erosion rate	P,B	2	m/yr	Continuous logarithmic distribution	NUREG/CR-6697, Attachment C (RESRAD default values)
Number of unsaturated zones	P	3	-	3, 3, 3, 2, 2, 2 and 2	Simplified hydrogeological model assumptions for various depths of discrete pockets of contamination
Unsaturated zone 1 thickness	P	1	m	1.505, 1.255, 0.755, 0, 0, 0, 0	Thickness of fine soil layer above the siltstone layer
Unsaturated zone 1 density	P	2	g/cm ³	Truncated normal distribution	NUREG/CR-6767, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 1 distribution coefficient for C-14	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 1 distribution coefficient for Ni-63	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Unsaturated zone 1 distribution coefficient for Co-60	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 1 distribution coefficient for Sr-90	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 1 distribution coefficient for Cs-134	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 1 distribution coefficient for Cs-137	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 1 total porosity	P	2	-	Truncated normal distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 1 effective porosity	P	2	-	Truncated normal distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 1 field capacity	P	3	-	0.2	RESRAD default value acceptable for this evaluation
Unsaturated zone 1 hydraulic conductivity	P	2	m/yr	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 1 soil-specific b parameter	P	2	-	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 2 thickness	P	1	m	25.6, 25.6, 25.6, 25.35, 23.85, 21.35, 16.35	Thickness of siltstone layer
Unsaturated zone 2 density	P	2	g/cm ³	Truncated normal distribution	NUREG/CR-6767, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 2 distribution coefficient for C-14	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 2 distribution coefficient for Ni-63	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Parameter	Class¹	Priority²	Units	Parameter Value	Basis for Parameter Selection
Unsaturated zone 2 distribution coefficient for Co-60	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 2 distribution coefficient for Sr-90	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 2 distribution coefficient for Cs-134	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 2 distribution coefficient for Cs-137	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 2 total porosity	P	2	-	Truncated normal distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 2 effective porosity	P	2	-	Truncated normal distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 2 field capacity	P	3	-	0.2	RESRAD default value acceptable for this evaluation
Unsaturated zone 2 hydraulic conductivity	P	2	m/yr	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 2 soil-specific b parameter	P	2	-	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 3 thickness	P	1	m	10.82	Thickness of unsaturated sandstone layer
Unsaturated zone 3 density	P	2	g/cm ³	Truncated normal distribution	NUREG/CR-6767, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 3 distribution coefficient for C-14	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 3 distribution coefficient for Ni-63	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Parameter	Class¹	Priority²	Units	Parameter Value	Basis for Parameter Selection
Unsaturated zone 3 distribution coefficient for Co-60	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 3 distribution coefficient for Sr-90	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 3 distribution coefficient for Cs-134	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 3 distribution coefficient for Cs-137	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Unsaturated zone 3 total porosity	P	2	-	Truncated normal distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 3 effective porosity	P	2	-	Truncated normal distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 3 field capacity	P	3	-	0.2	RESRAD default value acceptable for this evaluation
Unsaturated zone 3 hydraulic conductivity	P	2	m/yr	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Unsaturated zone 3 soil-specific b parameter	P	2	-	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Water					
Density of saturated zone	P	1	g/cm ³	Truncated normal distribution	NUREG/CR-6767, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Saturated zone distribution coefficient for C-14	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Saturated zone distribution coefficient for Ni-63	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Parameter	Class¹	Priority²	Units	Parameter Value	Basis for Parameter Selection
Saturated zone distribution coefficient for Co-60	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Saturated zone distribution coefficient for Sr-90	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Saturated zone distribution coefficient for Cs-134	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Saturated zone distribution coefficient for Cs-137	P	1	cm ³ /g	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Saturated zone total porosity	P	1	-	Truncated normal distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Saturated zone effective porosity	P	1	-	Truncated normal distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Saturated zone field capacity	P	3	-	0.2	RESRAD default value acceptable for this evaluation
Saturated zone hydraulic conductivity	P	1	m/yr	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C generic distribution due to variations in soil type depending on depth of discrete pocket of contamination
Saturated zone hydraulic gradient	P	2	-	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C
Saturated zone soil-specific b parameter	P	2	-	Bounded lognormal-n distribution	NUREG/CR-6697, Attachment C
Length of contaminated zone parallel to the aquifer flow	P	2	m	11.3	Diameter of the 100 m ² contaminated zone
Water table drop rate	P	3	m/yr	0.783	Site specific value applicable to the RSNCS site as reported in the FSAR, Appendix 2C
Well-pump intake depth (below water table)	P	2	m	23	Site specific value applicable to the RSNCS site as reported in the FSAR, Appendix 2C

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Well pumping rate	B, P	2	m ³ /yr	Not Used	Well pumping rate is not used with the Mass-Balance model for water transport selected – well pumping rate is used to calculate a dilution factor when the Nondisposal model is selected.
Model: non-dispersion or mass balance	NA	3	-	MB	The mass-balance model was chosen as the most conservative since it assumes that all of the radionuclides released from the contaminated zone are withdrawn through the well.
Evapotranspiration coefficient	P	2	-	Uniform distribution	NUREG/CR-6697, Attachment C
Humidity in air	P	3	g/m ³	Not Used	Not used when the Radon exposure pathway is suppressed
Average annual wind speed	P	2	m/s	3.13	7 mph average annual wind speed for the years of 1930 – 1996 reported by the National Climatic Data Center for Stockton, CA (http://www.ncdc.noaa.gov/oa/documentlibrary/wind/wind1996.pdf)
Precipitation rate	P	2	m/yr	0.38	Mean annual average rainfall measured at Sacramento and Stockton
Irrigation mode	B	3	-	Overhead	Behavioral value - ditch irrigation is not the principal method of irrigation in the local region
Irrigation rate	B	3	m/yr	0.2	Behavioral RESRAD v6.22 default value acceptable for this evaluation
Runoff coefficient	P	2	-	Uniform distribution	NUREG/CR-6697, Attachment C
Watershed area for nearby stream or pond	P	3	m ²	1.00E+07	The entire RSNGS site drains into Clay Creek
Accuracy for water soil computation	NA	3	-	0.001	Default RESRAD v6.22 value acceptable for this evaluation
Ingestion					
Fruit, vegetable, and grain consumption rate	M, B	2	kg/yr	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Leafy vegetable consumption	M, B	3	kg/yr	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Milk consumption	M, B	2	L/yr	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Meat and poultry consumption	M, B	3	kg/yr	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Parameter	Class ¹	Priority ²	Units	Parameter Value	Basis for Parameter Selection
Fish consumption rate	M, B	3	kg/yr	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Other seafood consumption rate	M, B	3	kg/yr	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Aquatic food contaminated fraction	B, P	2	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Soil ingestion rate	M, B	2	g/yr	Triangular distribution	NUREG/CR-6697, Attachment C
Drinking water intake	M, B	2	L/yr	Truncated lognormal-n distribution	NUREG/CR-6697, Attachment C
Storage time for fruits, non-leafy vegetables, and grain	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Storage time for leafy vegetables	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Storage time for milk	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Storage time for meat	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Storage time for fish	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Storage time for crustacea and mollusks	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Storage time for well water	B	3	d	1	Behavioral RESRAD v6.22 default value
Storage time for surface water	B	3	d	1	Behavioral RESRAD v6.22 default value
Storage time for livestock fodder	B	3	d	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Drinking water contaminated fraction	B, P	3	-	1	Default RESRAD v6.22 Behavioral/Physical value acceptable for this evaluation
Household water contaminated fraction	B, P	3	-	Not Used	Not used when the radon exposure pathway is suppressed
Livestock water contaminated fraction	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Parameter	Class¹	Priority²	Units	Parameter Value	Basis for Parameter Selection
Irrigation water contaminated fraction	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Plant food contaminated fraction	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Meat contaminated fraction	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Milk contaminated fraction	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Livestock fodder intake rate for meat	M	3	kg/d	Not Used	Not used with meat and milk exposure pathways suppressed in accordance with the Industrial Worker Scenario
Livestock fodder intake rate for milk	M	3	kg/d	Not Used	Not used with meat and milk exposure pathways suppressed in accordance with the Industrial Worker Scenario
Livestock water intake rate for meat	M	3	L/d	Not Used	Not used with meat and milk exposure pathways suppressed in accordance with the Industrial Worker Scenario
Livestock water intake rate for milk	M	3	L/d	Not Used	Not used with meat and milk exposure pathways suppressed in accordance with the Industrial Worker Scenario
Livestock intake of soil	M	3	kg/d	Not Used	Not used with meat and milk exposure pathways suppressed in accordance with the Industrial Worker Scenario
Mass loading for foliar deposition	P	3	g/m ³	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Depth of soil mixing layer	P	2	m	Triangular distribution	NUREG/CR-6697, Attachment C
Depth of roots	P	1	m	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Groundwater fractional usage for drinking water	B, P	3	-	1	Default RESRAD v6.22 Behavioral/Physical value acceptable for this evaluation
Groundwater fractional usage for household water	B, P	3	-	Not Used	Not used when the radon exposure pathway is suppressed
Groundwater fractional usage for livestock water	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Groundwater fractional usage for irrigation water	B, P	3	-	Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Wet weight crop yield for non-leafy plants	P	2	kg/m ²	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Parameter	Class¹	Priority²	Units	Parameter Value	Basis for Parameter Selection
Wet weight crop yield for leafy plants	P	3	kg/m ²	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Wet weight crop yield for fodder	P	3	kg/m ²	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Length of growing season for non-leafy vegetables	P	3	yr	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Length of growing season for leafy vegetables	P	3	yr	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Length of growing season for fodder	P	3	yr	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Translocation factor for non-leafy vegetables	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Translocation factor for leafy vegetables	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Translocation factor for fodder	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Weathering removal constant	P	2	1/yr	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Dry foliar interception fraction for non-leafy vegetables	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Dry foliar interception fraction for leafy vegetables	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Dry foliar interception fraction for fodder	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Wet foliar interception fraction for non-leafy vegetables	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Wet foliar interception fraction for leafy vegetables	P	2	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Wet foliar interception fraction for fodder	P	3	-	Not Used	Not used with vegetation exposure pathways suppressed in accordance with the Industrial Worker Scenario
Slope factor – external	M	3	(risk/yr)/ (pCi/g)	Nuclide specific	Metabolic RESRAD v6.22 default value

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Parameter	Class¹	Priority²	Units	Parameter Value	Basis for Parameter Selection
Slope factor – inhalation	M	3	risk/pCi	Nuclide specific	Metabolic RESRAD v6.22 default value
Slope factor – ingestion	M	3	risk/pCi	Nuclide specific	Metabolic RESRAD v6.22 default value
Plant transfer factor	P	1	-	Nuclide specific - Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Meat transfer factor	P	2	(pCi/kg)/ (pCi/d)	Nuclide specific - Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Milk transfer factor	P	2	(pCi/L)/ (pCi/d)	Nuclide specific - Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Bioaccumulation factor for fish	P	2	(pCi/kg)/ (pCi/L)	Nuclide specific - Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Bioaccumulation factor for crustacea and mollusks	P	3	(pCi/kg)/ (pCi/L)	Nuclide specific - Not Used	Not used with ingestion exposure pathways suppressed in accordance with the Industrial Worker Scenario
Occupancy (Inhalation & External Parameters)					
Inhalation rate	M, B	3	m ³ /yr	Triangular distribution	NUREG/CR-6697, Attachment C
Inhalation dose conversion factors	M	3	mrem/pCi	Nuclide Specific	Metabolic RESRAD v6.22 default value
Ingestion dose conversion factors	M	3	mrem/pCi	Nuclide Specific	Metabolic RESRAD v6.22 default value
Mass loading for inhalation	P, B	2	g/m ³	Continuous linear distribution	NUREG/CR-6697, Attachment C
Indoor dust filtration factor	P, B	2	-	Uniform distribution	NUREG/CR-6697, Attachment C
External gamma shielding factor	P	2	-	0.397	Deterministic sensitive parameter value determined in DTBD-05-005
Building foundation thickness	P	3	m	Not Used	The Radon Exposure Pathway is not used
Building foundation bulk density	P	3	g/m ³	Not Used	The Radon Exposure Pathway is not used
Building foundation total porosity	P	3	-	Not Used	The Radon Exposure Pathway is not used
Building foundation volumetric water content	P	3	-	Not Used	The Radon Exposure Pathway is not used

RESRAD v6.22 Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Parameter	Class¹	Priority²	Units	Parameter Value	Basis for Parameter Selection
Building foundation radon diffusion coefficient	P	3	m ² /s	Not Used	The Radon Exposure Pathway is not used
Contaminated soil zone radon diffusion coefficient	P	3	m ² /s	Not Used	The Radon Exposure Pathway is not used
Radon vertical dimension of mixing	P	3	m	Not Used	The Radon Exposure Pathway is not used
Building air exchange rate	P, B	3	1/hr	Not Used	The Radon Exposure Pathway is not used
Building (room) height	P	3	m	Not Used	The Radon Exposure Pathway is not used
Building indoor area factor	P	3	-	Not Used	The Radon Exposure Pathway is not used
Foundation depth below ground surface	P	3	m	Not Used	The Radon Exposure Pathway is not used
Radon-222 emanation coefficient	P	3	-	Not Used	The Radon Exposure Pathway is not used
Radon-220 emanation coefficient	P	3	-	Not Used	The Radon Exposure Pathway is not used
Indoor time fraction	B	3	-	0.114	50% of a work year (2000 hrs.) spent inside an industrial facility
Outdoor time fraction	B	3	-	0.114	50% of a work year (2000 hrs.) spent outside at an industrial facility
Exposure duration	B	3	yr	30	Behavioral RESRAD v6.22 default value

¹Parameter Classification: P = Physical; B = Behavioral; M = Metabolic

²1 = high priority parameter, 2 = medium priority parameter, 3 = low priority parameter

Attachment 8.6

Statistical Distribution Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

RESRAD v6.22 Dose Modeling Distribution Parameters – Industrial Worker Scenario

Parameter	Priority ¹	Distribution	Distribution's Statistical Parameters ²			
			1	2	3	4
Contaminated zone distribution coefficient for C-14	1	Truncated lognormal-n	2.40	3.22	0.001	0.999
Contaminated zone distribution coefficient for Ni-63	1	Truncated lognormal-n	6.05	1.46	0.001	0.999
Contaminated zone distribution coefficient for Co-60	1	Truncated lognormal-n	5.46	2.53	0.001	0.999
Contaminated zone distribution coefficient for Sr-90	1	Truncated lognormal-n	3.45	2.12	0.001	0.999
Contaminated zone distribution coefficient for Cs-134	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Contaminated zone distribution coefficient for Cs-137	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 1 distribution coefficient for C-14	1	Truncated lognormal-n	2.40	3.22	0.001	0.999
Unsaturated zone 1 distribution coefficient for Ni-63	1	Truncated lognormal-n	6.05	1.46	0.001	0.999
Unsaturated zone 1 distribution coefficient for Co-60	1	Truncated lognormal-n	5.46	2.53	0.001	0.999
Unsaturated zone 1 distribution coefficient for Sr-90	1	Truncated lognormal-n	3.45	2.12	0.001	0.999
Unsaturated zone 1 distribution coefficient for Cs-134	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 1 distribution coefficient for Cs-137	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 2 distribution coefficient for C-14	1	Truncated lognormal-n	2.40	3.22	0.001	0.999
Unsaturated zone 2 distribution coefficient for Ni-63	1	Truncated lognormal-n	6.05	1.46	0.001	0.999
Unsaturated zone 2 distribution coefficient for Co-60	1	Truncated lognormal-n	5.46	2.53	0.001	0.999
Unsaturated zone 2 distribution coefficient for Sr-90	1	Truncated lognormal-n	3.45	2.12	0.001	0.999
Unsaturated zone 2 distribution coefficient for Cs-134	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 2 distribution coefficient for Cs-137	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 3 distribution coefficient for C-14	1	Truncated lognormal-n	2.40	3.22	0.001	0.999
Unsaturated zone 3 distribution coefficient for Ni-63	1	Truncated lognormal-n	6.05	1.46	0.001	0.999
Unsaturated zone 3 distribution coefficient for Co-60	1	Truncated lognormal-n	5.46	2.53	0.001	0.999
Unsaturated zone 3 distribution coefficient for Sr-90	1	Truncated lognormal-n	3.45	2.12	0.001	0.999
Unsaturated zone 3 distribution coefficient for Cs-134	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Unsaturated zone 3 distribution coefficient for Cs-137	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Saturated zone distribution coefficient for C-14	1	Truncated lognormal-n	2.40	3.22	0.001	0.999
Saturated zone distribution coefficient for Ni-63	1	Truncated lognormal-n	6.05	1.46	0.001	0.999
Saturated zone distribution coefficient for Co-60	1	Truncated lognormal-n	5.46	2.53	0.001	0.999
Saturated zone distribution coefficient for Sr-90	1	Truncated lognormal-n	3.45	2.12	0.001	0.999
Saturated zone distribution coefficient for Cs-134	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Saturated zone distribution coefficient for Cs-137	1	Truncated lognormal-n	6.10	2.33	0.001	0.999
Cover density	1	Truncated normal	1.52	0.230	0.001	0.999
Cover erosion rate	2	Continuous logarithmic	Default ³	-	-	-
Contaminated zone density	2	Truncated normal	1.52	0.230	0.001	0.999
Contaminated zone b parameter	2	Bounded lognormal-n	1.06	0.66	0.5	30

RESRAD v6.22 Dose Modeling Distribution Parameters – Industrial Worker Scenario

Parameter	Priority ¹	Distribution	Distribution's Statistical Parameters ²			
			1	2	3	4
Contaminated zone erosion rate	2	Continuous logarithmic	Default ³	-	-	-
Contaminated zone total porosity	2	Truncated normal	0.425	0.0867	0.001	0.999
Contaminated zone hydraulic conductivity	2	Bounded lognormal-n	2.3	2.11	0.004	9250
Depth of soil mixing layer	2	Triangular	0.0	0.6	0.15	-
Drinking water intake	2	Truncated lognormal-n	6.015	0.489	0.001	0.999
Evapotranspiration coefficient	2	Uniform	0.5	0.75	-	-
Indoor dust filtration factor	2	Uniform	0.15	0.95	-	-
Inhalation rate	3	Triangular	4,380	13,100	8,400	-
Mass loading for inhalation	2	Continuous linear	Default ³	-	-	-
Soil ingestion rate	2	Triangular	0	36.5	18.3	-
Runoff coefficient	2	Uniform	0.1	0.8	-	-
Density of saturated zone	1	Truncated normal	1.52	0.230	0.001	0.999
Saturated zone b parameter	2	Bounded lognormal-n	1.06	0.66	0.5	30
Saturated zone hydraulic conductivity	2	Bounded lognormal-n	2.3	2.11	0.004	9250
Saturated zone hydraulic gradient	2	Bounded lognormal-n	-5.11	1.77	7E-05	0.5
Saturated zone total porosity	2	Truncated normal	0.425	0.0867	0.001	0.999
Saturated zone effective porosity	2	Truncated normal	0.355	0.0906	0.001	0.999
Unsaturated zone 1 density	2	Truncated normal	1.52	0.230	0.001	0.999
Unsaturated zone 1 total porosity	2	Truncated normal	0.425	0.0867	0.001	0.999
Unsaturated zone 1 effective porosity	2	Truncated normal	0.355	0.0906	0.001	0.999
Unsaturated zone 1 hydraulic conductivity	2	Bounded lognormal-n	2.3	2.11	0.004	9250
Unsaturated zone 1 b parameter	2	Bounded lognormal-n	1.06	0.66	0.5	30
Unsaturated zone 2 density	2	Truncated normal	1.52	0.230	0.001	0.999
Unsaturated zone 2 total porosity	2	Truncated normal	0.425	0.0867	0.001	0.999
Unsaturated zone 2 effective porosity	2	Truncated normal	0.355	0.0906	0.001	0.999
Unsaturated zone 2 hydraulic conductivity	2	Bounded lognormal-n	2.3	2.11	0.004	9250
Unsaturated zone 2 b parameter	2	Bounded lognormal-n	1.06	0.66	0.5	30
Unsaturated zone 3 density	2	Truncated normal	1.52	0.230	0.001	0.999
Unsaturated zone 3 total porosity	2	Truncated normal	0.425	0.0867	0.001	0.999
Unsaturated zone 3 effective porosity	2	Truncated normal	0.355	0.0906	0.001	0.999
Unsaturated zone 3 hydraulic conductivity	2	Bounded lognormal-n	2.3	2.11	0.004	9250
Unsaturated zone 3 b parameter	2	Bounded lognormal-n	1.06	0.66	0.5	30
Thickness of evasion layer of C-14 in soil	2	Triangular	0.5	1.0	0.75	-

Notes:

¹ = high priority parameter, 2 = medium priority parameter

²Distribution's Statistical Parameter

Bounded lognormal-n: 1 = underlying mean value, 2 = underlying standard deviation, 3 = lower limit, 4 = upper limit

Lognormal: 1 = mean, 2 = error factor

Normal: 1 = mean, 2 = standard deviation

Triangular: 1 = minimum, 2 = maximum, 3 = most likely

Truncated lognormal-n: 1 = underlying mean value, 2 = underlying standard deviation, 3 = lower quantile, 4 = upper quantile

Truncated normal: 1 = mean, 2 = standard deviation, 3 = lower quantile, 4 = upper quantile

Uniform: 1 = minimum, 2 = maximum

³Default RESRAD v6.22 distribution parameters were used

Attachment 8.7

RESRAD v6.22 Deterministic and Probabilistic Input Parameters for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+02	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.000E+00	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+01	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	6.920E-02	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	5.970E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
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)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	4.000E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	2.000E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+02	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	3	1	---	NS
R015	Unsat. zone 1, thickness (m)	1.505E+00	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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	2.560E+01	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	4.000E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	2.000E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.000E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R015	Unsat. zone 3, thickness (m)	1.082E+01	0.000E+00	---	H(3)
R015	Unsat. zone 3, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(3)
R015	Unsat. zone 3, total porosity	4.000E-01	4.000E-01	---	TPUZ(3)
R015	Unsat. zone 3, effective porosity	2.000E-01	2.000E-01	---	EPUZ(3)
R015	Unsat. zone 3, field capacity	2.000E-01	2.000E-01	---	FCUZ(3)
R015	Unsat. zone 3, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(3)
R015	Unsat. zone 3, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(3)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsaturated zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Unsaturated zone 3 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,3)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.129E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Unsaturated zone 3 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,3)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.781E-03	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R021	Total porosity of the 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	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters								
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
2	VCZ	CONTINUOUS LOGARITHMIC4	5.E-8 0 .0007	.22	.005	.95	.2	1			
3	TPCZ	TRUNCATED NORMAL	.425 .0867 .001 .999								
4	HCCZ	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
5	BCZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
6	DMC	TRIANGULAR	.2 .3 .6								
7	DENSUZ(1)	TRUNCATED NORMAL	1.52 .23 .001 .999								
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
9	TPUZ(1)	TRUNCATED NORMAL	.425 .0867 .001 .999								
10	EPUZ(1)	TRUNCATED NORMAL	.355 .0906 .001 .999								
11	HCUZ(1)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
12	BUZ(1)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
13	DENSUZ(2)	TRUNCATED NORMAL	1.52 .23 .001 .999								
14	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
15	TPUZ(2)	TRUNCATED NORMAL	.425 .0867 .001 .999								
16	EPUZ(2)	TRUNCATED NORMAL	.355 .0906 .001 .999								
17	HCUZ(2)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
18	BUZ(2)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
19	DENSUZ(3)	TRUNCATED NORMAL	1.52 .23 .001 .999								
20	DCACTU3(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
21	HCUZ(3)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
22	BUZ(3)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
23	DENSAQ	TRUNCATED NORMAL	1.52 .23 .001 .999								
24	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
25	HGWT	BOUNDED LOGNORMAL-N	-5.11 1.77 .00007 .5								
26	BSZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
27	EVAPTR	UNIFORM	.5 .75								
28	RUNOFF	UNIFORM	.1 .8								
29	SOIL	TRIANGULAR	0 18.3 36.5								
30	DWI	TRUNCATED LOGNORMAL-N	6.015 .489 .001 .999								
31	DM	TRIANGULAR	0 .15 .6								
32	INHALR	TRIANGULAR	4380 8400 13100								
33	MLINH	CONTINUOUS LINEAR	8 0 0 .000008 .0151 .000016 .1365 .00003 .8119								
.00004	.9495	.00006	.9937 .000076 .9983 .0001 1								
34	SHF3	UNIFORM	.15 .95								
35	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
36	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
37	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
38	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
39	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
40	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
41	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
42	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
43	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
44	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								

45	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999
46	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
47	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
48	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters				
49	DCACTU3(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999	
50	DCACTU3(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
51	DCACTU3(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
52	DCACTU3(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
53	DCACTU3(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
54	DCACTS(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999	
55	DCACTS(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999	
56	DCACTS(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999	
57	DCACTS(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
58	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
59	DENSCZ	TRUNCATED NORMAL	1.52	.23	.001	.999	
60	DCACTC(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999	
61	TPUZ(3)	TRUNCATED NORMAL	.425	.0867	.001	.999	
62	EPUZ(3)	TRUNCATED NORMAL	.355	.0906	.001	.999	
63	TPSZ	TRUNCATED NORMAL	.425	.0867	.001	.999	
64	EPSZ	TRUNCATED NORMAL	.355	.0906	.001	.999	
65	HCSZ	BOUNDED LOGNORMAL-N	2.3	2.11	.004	9250	
=====	=====	=====	=====	=====	=====	=====	=====

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+02	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.000E+00	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+01	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	9.190E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	6.920E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
R013	Cover depth (m)	2.500E-01	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	1.500E+00	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	1.000E-03	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)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	4.000E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	2.000E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+02	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	3	1	---	NS
R015	Unsat. zone 1, thickness (m)	1.255E+00	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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	2.560E+01	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	4.000E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	2.000E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.000E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R015	Unsat. zone 3, thickness (m)	1.082E+01	0.000E+00	---	H(3)
R015	Unsat. zone 3, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(3)
R015	Unsat. zone 3, total porosity	4.000E-01	4.000E-01	---	TPUZ(3)
R015	Unsat. zone 3, effective porosity	2.000E-01	2.000E-01	---	EPUZ(3)
R015	Unsat. zone 3, field capacity	2.000E-01	2.000E-01	---	FCUZ(3)
R015	Unsat. zone 3, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(3)
R015	Unsat. zone 3, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(3)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsaturated zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Unsaturated zone 3 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,3)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.129E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Unsaturated zone 3 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,3)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.781E-03	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R021	Total porosity of the 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	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters								
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
2	VCZ	CONTINUOUS LOGARITHMIC4	5.E-8 0 .0007	.22	.005	.95	.2	1			
3	TPCZ	TRUNCATED NORMAL	.425 .0867 .001 .999								
4	HCCZ	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
5	BCZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
6	DMC	TRIANGULAR	.2 .3 .6								
7	DENSUZ(1)	TRUNCATED NORMAL	1.52 .23 .001 .999								
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
9	TPUZ(1)	TRUNCATED NORMAL	.425 .0867 .001 .999								
10	EPUZ(1)	TRUNCATED NORMAL	.355 .0906 .001 .999								
11	HCUZ(1)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
12	BUZ(1)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
13	DENSUZ(2)	TRUNCATED NORMAL	1.52 .23 .001 .999								
14	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
15	TPUZ(2)	TRUNCATED NORMAL	.425 .0867 .001 .999								
16	EPUZ(2)	TRUNCATED NORMAL	.355 .0906 .001 .999								
17	HCUZ(2)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
18	BUZ(2)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
19	DENSUZ(3)	TRUNCATED NORMAL	1.52 .23 .001 .999								
20	DCACTU3(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
21	HCUZ(3)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
22	BUZ(3)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
23	DENSAQ	TRUNCATED NORMAL	1.52 .23 .001 .999								
24	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
25	HGWT	BOUNDED LOGNORMAL-N	-5.11 1.77 .00007 .5								
26	BSZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
27	EVAPTR	UNIFORM	.5 .75								
28	RUNOFF	UNIFORM	.1 .8								
29	SOIL	TRIANGULAR	0 18.3 36.5								
30	DWI	TRUNCATED LOGNORMAL-N	6.015 .489 .001 .999								
31	DM	TRIANGULAR	0 .15 .6								
32	INHALR	TRIANGULAR	4380 8400 13100								
33	MLINH	CONTINUOUS LINEAR	8 0 0 .000008 .0151 .000016 .1365 .00003 .8119								
.00004	.9495 .00006 .9937 .000076 .9983 .0001 1										
34	SHF3	UNIFORM	.15 .95								
35	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
36	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
37	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
38	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
39	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
40	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
41	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
42	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
43	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
44	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								

45	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999
46	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
47	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
48	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters										
49	DCACTU3(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999							
50	DCACTU3(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999							
51	DCACTU3(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999							
52	DCACTU3(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999							
53	DCACTU3(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999							
54	DCACTS(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999							
55	DCACTS(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999							
56	DCACTS(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999							
57	DCACTS(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999							
58	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999							
59	DENSCZ	TRUNCATED NORMAL	1.52	.23	.001	.999							
60	DCACTC(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999							
61	TPUZ(3)	TRUNCATED NORMAL	.425	.0867	.001	.999							
62	EPUZ(3)	TRUNCATED NORMAL	.355	.0906	.001	.999							
63	TPSZ	TRUNCATED NORMAL	.425	.0867	.001	.999							
64	EPSZ	TRUNCATED NORMAL	.355	.0906	.001	.999							
65	HCSZ	BOUNDED LOGNORMAL-N	2.3	2.11	.004	9250							
66	DENSCV	TRUNCATED NORMAL	1.52	.23	.001	.999							
67	VCV	CONTINUOUS LOGARITHMIC4		5.E-8	0	.0007	.22	.005	.95	.2	1		

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+02	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.000E+00	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+01	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	9.190E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	6.920E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
R013	Cover depth (m)	5.000E-01	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	1.500E+00	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	1.000E-03	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)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	4.000E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	2.000E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+02	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	3	1	---	NS
R015	Unsat. zone 1, thickness (m)	7.550E-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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	2.560E+01	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	4.000E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	2.000E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.000E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R015	Unsat. zone 3, thickness (m)	1.082E+01	0.000E+00	---	H(3)
R015	Unsat. zone 3, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(3)
R015	Unsat. zone 3, total porosity	4.000E-01	4.000E-01	---	TPUZ(3)
R015	Unsat. zone 3, effective porosity	2.000E-01	2.000E-01	---	EPUZ(3)
R015	Unsat. zone 3, field capacity	2.000E-01	2.000E-01	---	FCUZ(3)
R015	Unsat. zone 3, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(3)
R015	Unsat. zone 3, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(3)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsaturated zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Unsaturated zone 3 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,3)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.129E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Unsaturated zone 3 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,3)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Unsaturated zone 3 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,3)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.781E-03	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R021	Total porosity of the 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	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters							
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999							
2	VCZ	CONTINUOUS LOGARITHMIC4	5.E-8 0 .0007	.22	.005	.95	.2	1		
3	TPCZ	TRUNCATED NORMAL	.425 .0867 .001 .999							
4	HCCZ	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250							
5	BCZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30							
6	DMC	TRIANGULAR	.2 .3 .6							
7	DENSUZ(1)	TRUNCATED NORMAL	1.52 .23 .001 .999							
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999							
9	TPUZ(1)	TRUNCATED NORMAL	.425 .0867 .001 .999							
10	EPUZ(1)	TRUNCATED NORMAL	.355 .0906 .001 .999							
11	HCUZ(1)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250							
12	BUZ(1)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30							
13	DENSUZ(2)	TRUNCATED NORMAL	1.52 .23 .001 .999							
14	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999							
15	TPUZ(2)	TRUNCATED NORMAL	.425 .0867 .001 .999							
16	EPUZ(2)	TRUNCATED NORMAL	.355 .0906 .001 .999							
17	HCUZ(2)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250							
18	BUZ(2)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30							
19	DENSUZ(3)	TRUNCATED NORMAL	1.52 .23 .001 .999							
20	DCACTU3(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999							
21	HCUZ(3)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250							
22	BUZ(3)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30							
23	DENSAQ	TRUNCATED NORMAL	1.52 .23 .001 .999							
24	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999							
25	HGWT	BOUNDED LOGNORMAL-N	-5.11 1.77 .00007 .5							
26	BSZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30							
27	EVAPTR	UNIFORM	.5 .75							
28	RUNOFF	UNIFORM	.1 .8							
29	SOIL	TRIANGULAR	0 18.3 36.5							
30	DWI	TRUNCATED LOGNORMAL-N	6.015 .489 .001 .999							
31	DM	TRIANGULAR	0 .15 .6							
32	INHALR	TRIANGULAR	4380 8400 13100							
33	MLINH	CONTINUOUS LINEAR	8 0 0 .000008 .0151 .000016 .1365 .00003 .8119							
.00004	.9495 .00006 .9937 .000076 .9983 .0001 1									
34	SHF3	UNIFORM	.15 .95							
35	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999							
36	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999							
37	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999							
38	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999							
39	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999							
40	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999							
41	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999							
42	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999							
43	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999							
44	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999							

45	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999
46	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
47	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999
48	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters										
49	DCACTU3(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999							
50	DCACTU3(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999							
51	DCACTU3(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999							
52	DCACTU3(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999							
53	DCACTU3(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999							
54	DCACTS(5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999							
55	DCACTS(2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999							
56	DCACTS(6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999							
57	DCACTS(3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999							
58	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999							
59	DENSCZ	TRUNCATED NORMAL	1.52	.23	.001	.999							
60	DCACTC(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999							
61	TPUZ(3)	TRUNCATED NORMAL	.425	.0867	.001	.999							
62	EPUZ(3)	TRUNCATED NORMAL	.355	.0906	.001	.999							
63	TPSZ	TRUNCATED NORMAL	.425	.0867	.001	.999							
64	EPSZ	TRUNCATED NORMAL	.355	.0906	.001	.999							
65	HCSZ	BOUNDED LOGNORMAL-N	2.3	2.11	.004	9250							
66	DENSCV	TRUNCATED NORMAL	1.52	.23	.001	.999							
67	VCV	CONTINUOUS LOGARITHMIC	4	5.E-8	0	.0007	.22	.005	.95	.2	1		

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+02	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.000E+00	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+01	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	9.190E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	6.920E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
R013	Cover depth (m)	1.000E+00	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	1.500E+00	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	1.000E-03	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)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	4.000E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	2.000E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+02	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	2	1	---	NS
R015	Unsat. zone 1, thickness (m)	2.535E+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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	1.082E+01	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	4.000E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	2.000E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.000E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsat. zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsat. zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.129E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsat. zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsat. zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsat. zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsat. zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.781E-03	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-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)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
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)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
TITL	Number of graphical time points	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters								
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
2	VCZ	CONTINUOUS LOGARITHMIC4	5.E-8 0 .0007	.22	.005	.95	.2	1			
3	TPCZ	TRUNCATED NORMAL	.425 .0867 .001 .999								
4	HCCZ	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
5	BCZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
6	DMC	TRIANGULAR	.2 .3 .6								
7	DENSUZ(1)	TRUNCATED NORMAL	1.52 .23 .001 .999								
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
9	TPUZ(1)	TRUNCATED NORMAL	.425 .0867 .001 .999								
10	EPUZ(1)	TRUNCATED NORMAL	.355 .0906 .001 .999								
11	HCUZ(1)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
12	BUZ(1)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
13	DENSUZ(2)	TRUNCATED NORMAL	1.52 .23 .001 .999								
14	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
15	TPUZ(2)	TRUNCATED NORMAL	.425 .0867 .001 .999								
16	EPUZ(2)	TRUNCATED NORMAL	.355 .0906 .001 .999								
17	HCUZ(2)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
18	BUZ(2)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
19	DENSAQ	TRUNCATED NORMAL	1.52 .23 .001 .999								
20	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
21	HGWT	BOUNDED LOGNORMAL-N	-5.11 1.77 .00007 .5								
22	BSZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
23	EVAPTR	UNIFORM	.5 .75								
24	RUNOFF	UNIFORM	.1 .8								
25	SOIL	TRIANGULAR	0 18.3 36.5								
26	DWI	TRUNCATED LOGNORMAL-N	6.015 .489 .001 .999								
27	DM	TRIANGULAR	0 .15 .6								
28	INHALR	TRIANGULAR	4380 8400 13100								
29	MLINH	CONTINUOUS LINEAR	8 0 0 .000008 .0151 .000016 .1365 .00003 .8119								
.00004	.9495 .00006 .9937 .000076 .9983 .0001 1										
30	SHF3	UNIFORM	.15 .95								
31	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
32	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
33	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
34	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
35	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
36	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
37	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
38	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
39	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
40	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
41	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
42	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
43	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
44	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								

45	DCACTS (5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999
46	DCACTS (2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999
47	DCACTS (6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
48	DCACTS (3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters										
49	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999							
50	DENSCZ	TRUNCATED NORMAL	1.52	.23	.001	.999							
51	DCACTC(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999							
52	TPSZ	TRUNCATED NORMAL	.425	.0867	.001	.999							
53	EPSZ	TRUNCATED NORMAL	.355	.0906	.001	.999							
54	HCSZ	BOUNDED LOGNORMAL-N	2.3	2.11	.004	9250							
55	DENSCV	TRUNCATED NORMAL	1.52	.23	.001	.999							
56	VCV	CONTINUOUS LOGARITHMIC4		5.E-8	0	.0007	.22	.005	.95	.2	1		

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+02	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.000E+00	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+01	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	9.190E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	6.920E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
R013	Cover depth (m)	2.500E+00	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	1.500E+00	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	1.000E-03	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)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	4.000E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	2.000E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+02	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	2	1	---	NS
R015	Unsat. zone 1, thickness (m)	2.385E+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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	1.082E+01	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	4.000E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	2.000E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.000E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsat. zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsat. zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.129E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsat. zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsat. zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsat. zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsat. zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.781E-03	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-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)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
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)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
TITL	Number of graphical time points	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters								
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
2	VCZ	CONTINUOUS LOGARITHMIC4	5.E-8 0 .0007	.22	.005	.95	.2			1	
3	TPCZ	TRUNCATED NORMAL	.425 .0867 .001 .999								
4	HCCZ	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
5	BCZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
6	DMC	TRIANGULAR	.2 .3 .6								
7	DENSUZ(1)	TRUNCATED NORMAL	1.52 .23 .001 .999								
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
9	TPUZ(1)	TRUNCATED NORMAL	.425 .0867 .001 .999								
10	EPUZ(1)	TRUNCATED NORMAL	.355 .0906 .001 .999								
11	HCUZ(1)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
12	BUZ(1)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
13	DENSUZ(2)	TRUNCATED NORMAL	1.52 .23 .001 .999								
14	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
15	TPUZ(2)	TRUNCATED NORMAL	.425 .0867 .001 .999								
16	EPUZ(2)	TRUNCATED NORMAL	.355 .0906 .001 .999								
17	HCUZ(2)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
18	BUZ(2)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
19	DENSAQ	TRUNCATED NORMAL	1.52 .23 .001 .999								
20	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
21	HGWT	BOUNDED LOGNORMAL-N	-5.11 1.77 .00007 .5								
22	BSZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
23	EVAPTR	UNIFORM	.5 .75								
24	RUNOFF	UNIFORM	.1 .8								
25	SOIL	TRIANGULAR	0 18.3 36.5								
26	DWI	TRUNCATED LOGNORMAL-N	6.015 .489 .001 .999								
27	DM	TRIANGULAR	0 .15 .6								
28	INHALR	TRIANGULAR	4380 8400 13100								
29	MLINH	CONTINUOUS LINEAR	8 0 0 .000008 .0151 .000016 .1365 .00003 .8119								
.00004	.9495 .00006 .9937 .000076 .9983 .0001 1										
30	SHF3	UNIFORM	.15 .95								
31	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
32	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
33	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
34	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
35	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
36	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
37	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
38	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
39	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
40	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
41	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
42	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
43	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
44	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								

45	DCACTS (5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999
46	DCACTS (2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999
47	DCACTS (6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
48	DCACTS (3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters									
49	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999						
50	DENSCZ	TRUNCATED NORMAL	1.52	.23	.001	.999						
51	DCACTC(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999						
52	TPSZ	TRUNCATED NORMAL	.425	.0867	.001	.999						
53	EPSZ	TRUNCATED NORMAL	.355	.0906	.001	.999						
54	HCSZ	BOUNDED LOGNORMAL-N	2.3	2.11	.004	9250						
55	DENSCV	TRUNCATED NORMAL	1.52	.23	.001	.999						
56	VCV	CONTINUOUS LOGARITHMIC4		5.E-8	0	.0007	.22	.005	.95	.2	1	
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+02	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.000E+00	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+01	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	9.190E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	6.920E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
R013	Cover depth (m)	5.000E+00	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	1.500E+00	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	1.000E-03	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)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	4.000E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	2.000E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+02	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	2	1	---	NS
R015	Unsat. zone 1, thickness (m)	2.135E+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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	1.082E+01	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	4.000E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	2.000E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.000E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsat. zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsat. zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.129E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsat. zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsat. zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsat. zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsat. zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.781E-03	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-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)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
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)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
TITL	Number of graphical time points	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters								
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
2	VCZ	CONTINUOUS LOGARITHMIC4	5.E-8 0 .0007	.22	.005	.95	.2	1			
3	TPCZ	TRUNCATED NORMAL	.425 .0867 .001 .999								
4	HCCZ	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
5	BCZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
6	DMC	TRIANGULAR	.2 .3 .6								
7	DENSUZ(1)	TRUNCATED NORMAL	1.52 .23 .001 .999								
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
9	TPUZ(1)	TRUNCATED NORMAL	.425 .0867 .001 .999								
10	EPUZ(1)	TRUNCATED NORMAL	.355 .0906 .001 .999								
11	HCUZ(1)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
12	BUZ(1)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
13	DENSUZ(2)	TRUNCATED NORMAL	1.52 .23 .001 .999								
14	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
15	TPUZ(2)	TRUNCATED NORMAL	.425 .0867 .001 .999								
16	EPUZ(2)	TRUNCATED NORMAL	.355 .0906 .001 .999								
17	HCUZ(2)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
18	BUZ(2)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
19	DENSAQ	TRUNCATED NORMAL	1.52 .23 .001 .999								
20	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
21	HGWT	BOUNDED LOGNORMAL-N	-5.11 1.77 .00007 .5								
22	BSZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
23	EVAPTR	UNIFORM	.5 .75								
24	RUNOFF	UNIFORM	.1 .8								
25	SOIL	TRIANGULAR	0 18.3 36.5								
26	DWI	TRUNCATED LOGNORMAL-N	6.015 .489 .001 .999								
27	DM	TRIANGULAR	0 .15 .6								
28	INHALR	TRIANGULAR	4380 8400 13100								
29	MLINH	CONTINUOUS LINEAR	8 0 0 .000008 .0151 .000016 .1365 .00003 .8119								
.00004	.9495 .00006 .9937 .000076 .9983 .0001 1										
30	SHF3	UNIFORM	.15 .95								
31	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
32	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
33	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
34	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
35	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
36	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
37	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
38	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
39	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
40	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
41	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
42	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
43	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
44	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								

45	DCACTS (5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999
46	DCACTS (2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999
47	DCACTS (6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
48	DCACTS (3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters									
49	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999						
50	DENSCZ	TRUNCATED NORMAL	1.52	.23	.001	.999						
51	DCACTC(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999						
52	TPSZ	TRUNCATED NORMAL	.425	.0867	.001	.999						
53	EPSZ	TRUNCATED NORMAL	.355	.0906	.001	.999						
54	HCSZ	BOUNDED LOGNORMAL-N	2.3	2.11	.004	9250						
55	DENSCV	TRUNCATED NORMAL	1.52	.23	.001	.999						
56	VCV	CONTINUOUS LOGARITHMIC4		5.E-8	0	.0007	.22	.005	.95	.2	1	
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+02	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.000E+00	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.130E+01	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	2.500E+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): C-14	2.560E-01	0.000E+00	---	S1(1)
R012	Initial principal radionuclide (pCi/g): Co-60	3.600E-01	0.000E+00	---	S1(2)
R012	Initial principal radionuclide (pCi/g): Cs-134	1.240E-02	0.000E+00	---	S1(3)
R012	Initial principal radionuclide (pCi/g): Cs-137	5.120E+01	0.000E+00	---	S1(4)
R012	Initial principal radionuclide (pCi/g): Ni-63	9.190E+00	0.000E+00	---	S1(5)
R012	Initial principal radionuclide (pCi/g): Sr-90	6.920E-02	0.000E+00	---	S1(6)
R012	Concentration in groundwater (pCi/L): C-14	not used	0.000E+00	---	W1(1)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1(2)
R012	Concentration in groundwater (pCi/L): Cs-134	not used	0.000E+00	---	W1(3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1(4)
R012	Concentration in groundwater (pCi/L): Ni-63	not used	0.000E+00	---	W1(5)
R012	Concentration in groundwater (pCi/L): Sr-90	not used	0.000E+00	---	W1(6)
R013	Cover depth (m)	1.000E+01	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	1.500E+00	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	1.000E-03	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)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	4.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.130E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	3.800E-01	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+07	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)	1.500E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	4.000E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	2.000E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+02	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	5.300E+00	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	7.830E-01	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	2.300E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	MB	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	not used	2.500E+02	---	UW
R015	Number of unsaturated zone strata	2	1	---	NS
R015	Unsat. zone 1, thickness (m)	1.635E+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	4.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R015	Unsat. zone 2, thickness (m)	1.082E+01	0.000E+00	---	H(2)
R015	Unsat. zone 2, soil density (g/cm**3)	1.500E+00	1.500E+00	---	DENSUZ(2)
R015	Unsat. zone 2, total porosity	4.000E-01	4.000E-01	---	TPUZ(2)
R015	Unsat. zone 2, effective porosity	2.000E-01	2.000E-01	---	EPUZ(2)
R015	Unsat. zone 2, field capacity	2.000E-01	2.000E-01	---	FCUZ(2)
R015	Unsat. zone 2, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(2)
R015	Unsat. zone 2, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(2)
R016	Distribution coefficients for C-14				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC(1)
R016	Unsat. zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,1)
R016	Unsat. zone 2 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU(1,2)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.129E-01	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(2)
R016	Unsat. zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,1)
R016	Unsat. zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(2,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)
R016	Distribution coefficients for Cs-134				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(3)
R016	Unsat. zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,1)
R016	Unsat. zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(3,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(4,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for Ni-63				
R016	Contaminated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,1)
R016	Unsaturated zone 2 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU(5,2)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.398E-05	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)
R016	Distribution coefficients for Sr-90				
R016	Contaminated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,1)
R016	Unsaturated zone 2 (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCU(6,2)
R016	Saturated zone (cm**3/g)	3.000E+01	3.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.781E-03	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.970E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	1.140E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	1.140E-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)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
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)	not used	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	not used	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	not used	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	not used	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)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	5.100E+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	not used	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	not used	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	not used	5.000E-01	---	FR9
R018	Contamination fraction of plant food	not used	-1	---	FPLANT
R018	Contamination fraction of meat	not used	-1	---	FMEAT
R018	Contamination fraction of milk	not used	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	not used	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	not used	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	not used	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	not used	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	not used	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	not used	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	not used	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	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	not used	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	not used	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	not used	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	not used	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	not used	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	not used	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	not used	8.000E-02	---	TE(3)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R19B	Translocation Factor for Non-Leafy	not used	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	not used	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	not used	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	not used	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	not used	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	not used	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	not used	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	8.000E-01	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	2.000E-01	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	8.894E+01	8.894E+01	---	CO2F
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
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)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
TITL	Number of graphical time points	32	---	---	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	suppressed
4 -- meat ingestion	suppressed
5 -- milk ingestion	suppressed
6 -- aquatic foods	suppressed
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	active

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters								
1	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
2	VCZ	CONTINUOUS LOGARITHMIC4	5.E-8 0 .0007	.22	.005	.95	.2	1			
3	TPCZ	TRUNCATED NORMAL	.425 .0867 .001 .999								
4	HCCZ	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
5	BCZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
6	DMC	TRIANGULAR	.2 .3 .6								
7	DENSUZ(1)	TRUNCATED NORMAL	1.52 .23 .001 .999								
8	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
9	TPUZ(1)	TRUNCATED NORMAL	.425 .0867 .001 .999								
10	EPUZ(1)	TRUNCATED NORMAL	.355 .0906 .001 .999								
11	HCUZ(1)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
12	BUZ(1)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
13	DENSUZ(2)	TRUNCATED NORMAL	1.52 .23 .001 .999								
14	DCACTU2(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
15	TPUZ(2)	TRUNCATED NORMAL	.425 .0867 .001 .999								
16	EPUZ(2)	TRUNCATED NORMAL	.355 .0906 .001 .999								
17	HCUZ(2)	BOUNDED LOGNORMAL-N	2.3 2.11 .004 9250								
18	BUZ(2)	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
19	DENSAQ	TRUNCATED NORMAL	1.52 .23 .001 .999								
20	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4 3.22 .001 .999								
21	HGWT	BOUNDED LOGNORMAL-N	-5.11 1.77 .00007 .5								
22	BSZ	BOUNDED LOGNORMAL-N	1.06 .66 .5 30								
23	EVAPTR	UNIFORM	.5 .75								
24	RUNOFF	UNIFORM	.1 .8								
25	SOIL	TRIANGULAR	0 18.3 36.5								
26	DWI	TRUNCATED LOGNORMAL-N	6.015 .489 .001 .999								
27	DM	TRIANGULAR	0 .15 .6								
28	INHALR	TRIANGULAR	4380 8400 13100								
29	MLINH	CONTINUOUS LINEAR	8 0 0 .000008 .0151 .000016 .1365 .00003 .8119								
.00004	.9495 .00006 .9937 .000076 .9983 .0001 1										
30	SHF3	UNIFORM	.15 .95								
31	DCACTC(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
32	DCACTC(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
33	DCACTC(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
34	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
35	DCACTU1(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
36	DCACTU1(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
37	DCACTU1(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
38	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
39	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
40	DCACTU2(5)	TRUNCATED LOGNORMAL-N	6.05 1.46 .001 .999								
41	DCACTU2(2)	TRUNCATED LOGNORMAL-N	5.46 2.53 .001 .999								
42	DCACTU2(6)	TRUNCATED LOGNORMAL-N	3.45 2.12 .001 .999								
43	DCACTU2(3)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								
44	DCACTU2(4)	TRUNCATED LOGNORMAL-N	6.1 2.33 .001 .999								

45	DCACTS (5)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999
46	DCACTS (2)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999
47	DCACTS (6)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999
48	DCACTS (3)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters									
49	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999						
50	DENSCZ	TRUNCATED NORMAL	1.52	.23	.001	.999						
51	DCACTC(4)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999						
52	TPSZ	TRUNCATED NORMAL	.425	.0867	.001	.999						
53	EPSZ	TRUNCATED NORMAL	.355	.0906	.001	.999						
54	HCSZ	BOUNDED LOGNORMAL-N	2.3	2.11	.004	9250						
55	DENSCV	TRUNCATED NORMAL	1.52	.23	.001	.999						
56	VCV	CONTINUOUS LOGARITHMIC4		5.E-8	0	.0007	.22	.005	.95	.2	1	
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====

Attachment 8.8

Peak of the Mean Dose Results for Dose Modeling Probabilistic Analysis of Discrete Pockets of Contamination

RESRAD, Version 6.22 T½ Limit = 0.5 year 06/15/2005 15:08 Page 21
Probabilistic results summary : Dose for a Discrete Pocket at the Surface
File : SS Pocket Dose1.RAD

Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	2.229E+01

RESRAD, Version 6.22 T½ Limit = 0.5 year 06/15/2005 15:38 Page 21
 Probabilistic results summary : Dose for a Discrete Pocket 0.25 m Below the Sur-
 face File: SS Pocket Dose2.RAD
 Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	5.380E+01	1.543E+00

RESRAD, Version 6.22 T½ Limit = 0.5 year 06/15/2005 16:27 Page 21
 Probabilistic results summary : Dose for a Discrete Pocket 0.5 m Below the Surf-
 ace File: SS Pocket Dose3.RAD
 Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	2.424E+01	4.505E-01

RESRAD, Version 6.22 T½ Limit = 0.5 year 06/15/2005 16:53 Page 21
 Probabilistic results summary : Dose for a Discrete Pocket 1.0 m Below the Surf-
 ace File: SS Pocket Dose4.RAD
 Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	2.424E+01	2.787E-01

RESRAD, Version 6.22 T½ Limit = 0.5 year 06/15/2005 17:11 Page 21
 Probabilistic results summary : Dose for a Discrete Pocket 2.5 m Below the Surf-
 ace File: SS Pocket Dose5.RAD
 Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	4.125E+01	1.361E-01

RESRAD, Version 6.22 T½ Limit = 0.5 year 06/15/2005 17:36 Page 21
 Probabilistic results summary : Dose for a Discrete Pocket 5 m Below the Surface
 File: SS Pocket Dose6.RAD

Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	5.380E+01	5.997E-02

RESRAD, Version 6.22 T½ Limit = 0.5 year 06/16/2005 08:04 Page 21
 Probabilistic results summary : Dose for a Discrete Pocket 10 m Below the Surfa-
 ce File: SS Pocket Dose7.RAD
 Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	7.017E+01	2.639E-02