



BARTLETT

ENGINEERING CALCULATION

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Calculation Title: RESRAD-Build Input Parameter Sensitivity Analysis - Humboldt Bay

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1.0 PURPOSE

The purpose of this calculation is to identify input parameters used in the RESRAD-Build code to model the building occupancy scenario that have a significant impact on the calculated dose (i.e., those parameters whose values greatly influence the calculated dose; aka, "sensitive" input parameters). The results of this calculation will support the development of building surface derived concentration guideline levels (DCGLs) for the Humboldt Bay Power Plant. This calculation is a deliverable product specified in the scope of work section in Contract No. GT012 3500895165.

2.0 APPLICABILITY

This calculation addresses only the sensitivity analysis for input parameters for the building occupancy scenario as defined for the Humboldt Bay Power Plant.

3.0 REFERENCES

- 3.1 Procedure ENG-AP-02, *Verification of Software Operability*
- 3.2 *User's Manual for RESRAD-Build Version 3.0*, June 2003 (ANL/EAD/03-1)
- 3.3 NUREG/CR-5512, *Residual Radioactive Contamination from Decommissioning*
 - Volume 1: *Technical Basis for Translating Contamination Levels to Annual Total Effective Dose Equivalent*, Oct. 1992 (PNL-7994)
 - Volume 3: *Parameter Analysis, Draft Report for Comment*, Oct. 1999 (SAND99-2148)
- 3.4 NUREG/CR-6697, *Development of Probabilistic RESRAD 6.0 and RESRAD-Build 3.0 Computer Codes*, Nov. 2000 (ANL/EAD/TM-98)
- 3.5 NUREG/CR-6755, *Technical Basis for Calculating Radiation Doses for the Building Occupancy Scenario Using the Probabilistic RESRAD-Build 3.0 Code*, Feb. 2002 (ANL/EAD/TM/02-1)
- 3.6 NUREG-1727, *NMSS Decommissioning Standard Review Plan*, Sept. 2000
- 3.7 NUREG/CR-6676, *Probabilistic Dose Analysis Using Parameter Distributions Developed for RESRAD and RESRAD-Build Codes*, May 2000 (ANL/EAD/TM-89)
- 3.8 NUREG/CR-6692, *Probabilistic Modules for the RESRAD and RESRAD-Build Computer Codes*, Nov. 2000 (ANL/EAD/TM-91)

4.0 METHOD OF CALCULATION

The operability of the RESRAD-Build code version 3.5 was verified on each computer use for code executions in accordance with the Bartlett Engineering procedure ENG-AP-02, *Verification of Software Operability* [ref. 3.1]. The RESRAD-Build user's manual [ref. 3.2] provided guidance for code operation.

The sensitivity analysis for the building scenario input parameters was performed using Version 3.5 of the RESRAD-Build computer code, which was developed by Argonne National Laboratory under the sponsorship of the U.S. Department of Energy and other federal agencies. The code requires input for numerous parameters in order to calculate the dose via various exposure pathways to a hypothetical individual working in a laboratory room contaminated with radioactive material. The probabilistic modules in RESRAD-Build permit the user to perform a sensitivity analysis to identify those parameters that have the greatest impact on dose. In addition, the probabilistic modules allow the evaluation of dose as a function of parameter distributions. Verification of the RESRAD-Build code is documented in the RESRAD-Build user's manual [ref. 3.2] and testing for the probabilistic codes is discussed in NUREG/CR-6697 [ref. 3.4].

The RESRAD-Build computer code is a pathway analysis model designed to evaluate the potential radiological dose incurred by an individual who works in a building contaminated with radioactive material. The exposure scenario modeled in this calculation is the building occupancy scenario, which provides estimates of human radiation exposures to residual radioactivity on surfaces inside standing buildings and permits the determination of DCGLs for building surfaces. The exposure pathways considered are:

- direct external exposure from the source (i.e., radioactive material deposited on the floor, walls, and ceiling),
- external exposure from deposited material,
- external exposure due to air submersion,
- exposure due to inhalation of airborne radioactive material, and
- ingestion of radioactive material directly from the sources and material deposited on the surfaces.

The approach taken in this calculation consists of two primary phases: the selection of input parameter values and performing RESRAD-Build runs. The first phase involves classifying and prioritizing the RESRAD-Build input parameters. The selection process is based on guidance provided in NUREG/CR-6676 [ref 3.7], NUREG/CR-6697 [ref. 3.4], NUREG/CR-6692 [ref. 3.8], and NUREG/CR-6755 [ref. 3.5]. Figure 1 provides a flow diagram for the parameter selection process.

Classification, prioritization, and treatment of input parameters: Parameters were classified as behavioral, metabolic, or physical parameters consistent to the classifications found in NUREG/CR-6697 [ref. 3.4]. Behavioral parameters depend on the behavior of the receptor and the scenario definition. Metabolic parameters are independent of the defined scenario, and represent the metabolic characteristics of the receptor. Physical parameters are those parameters that would not change if the receptor changed.

Following the classification process, parameters were assigned priority rankings. Priority 1 parameters are high priority; Priority 2 parameters are medium priority; and Priority 3 parameters are low priority. NUREG/CR-6697 [ref. 3.4] provides prioritization rankings for input parameters. Those rankings were adopted in this calculation. The priority of a given parameter is based on:

- the relevance of the parameter in dose calculations,
- the variability of the dose because of changes in the parameter value,

- the parameter type, and
- the availability of parameter-specific data.

Input parameters were treated as either deterministic (a single value is assigned) or stochastic (a probability distribution is assigned). Treatment depended on parameter type, availability of site-specific data, and the relevance of the parameter in the dose calculations.

- Behavioral and metabolic parameters were treated as deterministic and the assigned values were from NUREG/CR05512, volume 3 [ref. 3.3], NUREG/CR-6697 [ref. 3.4], NUREG/CR-6755 [ref. 3.5], or the RESRAD-Build User's Manual [ref. 3.2]. Parameters for which site-specific data are available were treated as deterministic.
- Physical parameters for which site-specific data are unavailable were assigned values based on priority. Priority 1 and 2 physical parameters were treated stochastic and assigned probability distributions from NREG/CR-5512, volume 3 [ref. 3.3], NUREG/CR-6697 [ref. 3.4], NUREG/CR-6755 [ref. 3.5], or assigned a deterministic value from NUREG/CR-5512, volume 3 [ref. 3.3], NUREG/CR-6697 [ref.3.4], or NUREG/CR-6755 [ref. 3.5]. Priority 1 and 2 physical parameters for which site-specific data are available were treated as deterministic. Priority 3 physical parameters were treated as deterministic and were assigned values from NUREG/CR-5512, volume 3 [ref. 3.3], NUREG/CR-6697 [ref.3.4], NUREG/CR-6755 [ref. 3.5], or the RESRAD-Build User's Manual [ref 3.2].

Following the parameter selection process, RESRAD-Build input files were developed based on the results of the parameter selection process and a parameter sensitivity analysis was performed for each radionuclide of concern. Input correlations were applied based on guidance in NUREG/CR-6676 [ref. 3.7].

The RESRAD-Build Probabilistic Output Report provides regression and correlation coefficients for the average doses at the user defined evaluation times. The Partial Rank Correlation Coefficient (PRCC) has been used to identify sensitive parameters with the limit set at 0.1. NUREG/CR-6692 [ref. 3.8] and NUREG/CR-6697 [ref. 3.4] recommend the use of the PRCC for cases where a non-linear relationship and widely disparate scales exists between the input and output. The guidance further recommends the use of the PRCC if strong correlations exist between input parameters. The criterion for sensitivity used in this calculation was a PRCC value with an absolute value greater than 0.1. In addition, PRCC values that are greater than zero (positive value) or less than zero (negative value) identify whether sensitive parameters are positively or negatively correlated to dose, respectively. Therefore, 75th values were determined for sensitive parameters that had positive PRCC values and 25th values were determined for sensitive parameters that had negative PRCC values. These 25th and 75th percentile values are proposed as reasonably conservative input for the DCGL calculation for building surfaces.

The 25th and 75th percentile values were obtained using the following method:

1. Open the RESRAD-Build "*.buo" file generated during from the sensitivity run using the "View Interactive Output" button on the RESRAD-Build navigator.
2. Click the "Results" tab in the interactive output window.
3. Click on the "Graphics" tab.
4. Select "input vector" by scrolling through the choices under the "Primary Object" prompt.

5. Select the desired parameter by scrolling through the choices under the "Input Parameter" prompt.
6. Right click on the cumulative probability graph and select "Edit Chart Data."
7. Scroll down until the desired fraction (i.e., 0.25 or 0.75) is visible in column C2. The corresponding value in column C1 is the percentile value.

5.0 ASSUMPTIONS AND INPUT

5.1 Assumptions

Building Scenario description: The RESRAD-Build code v3.5 was used to model (through use of input parameter values) the building occupancy scenario defined in NUREG/CR-5512, volume 1 [ref. 3.5]. Modeling of this scenario provides an estimate of human radiation exposure to residual radioactivity on surfaces inside standing buildings and permits the determination of DCGLs for building surfaces. Five exposure pathways are assumed active: (i) direct external exposure from the source (i.e., radioactive material deposited on the floor, walls, and ceiling), (ii) external exposure from deposited material, (iii) external exposure due to air submersion, (iv) exposure due to inhalation of airborne radioactive material, and (v) ingestion of radioactive material directly from the sources and material deposited on the surfaces.

The following radionuclides are assumed the only radionuclides-of-concern (ROCs) for the Humboldt Bay site: Am-241, C-14, Cm243/244/245/246, Co-60, Cs-137, Eu-152, Eu-154, H-3, I-129, Nb-94, Ni-59, Ni-63, Np-237, Pu-238/239/240/241, Sr-90, and Tc-99.

The hypothetical worker is assumed to perform activities inside an office room for a full occupational year.

Figure 2 provides an illustration of the General Office in the Administration Building, which was selected as representative room for the Humboldt Bay site. The General Office was selected because it represents the type of room that would be occupied by full-time employees after license termination. For modeling purposes, a rectangular room (18.5 ft by 27.8 ft) with 8.2 ft walls was assumed. This modeled room included 6 area sources (i.e. floor, 4 walls, and ceiling).

5.2 Input

Table 1 summarizes the classification, prioritization, values and their bases for all input parameters.

Values from NUREG/CR-5512, volume 3 [ref. 3.3], NUREG/CR-6697 [ref. 3.4], NUREG/CR-6755 [ref. 3.5], or NUREG-1727 [ref.3.6] were assigned for the following scenario-defined parameters:

- Exposure duration: 365.25 d
- Indoor fraction: 0.267 (= 97.5 work d/y divided by 365.25 d/y)
- Inhalation rate: 33.6 m³/d (=1.4 m³/h * 24 h/d)
- Receptor location (center of room, x, y, z coordinates): 2.82m, 4.24m, 1.0m
- Indirect ingestion rate: 1.1E-04 m²/h
- Air fraction: 0.07 for all nuclides except H-3; 1.0 for H-3

- Removable fraction: 0.1 (all ROCs)

Site-specific information (i.e., room dimensions) was used as the basis in calculations (see section 6.0) of values for the following parameters:

- Room area
- Room height
- Receptor location
- Location of center of source
- Source length
- Source area

Statistical distributions from NUREG/CR-6755 [ref. 3.5] provided input for:

- deposition velocity,
- air exchange rate for room,
- resuspension rate, and
- time for source removal.

An input correlation of 0.9 between the deposition velocity and the resuspension rate was applied based on guidance in NUREG/CR-6676 [ref. 3.7]. In addition, because the sources are assumed constructed of the same material and subject to the same environment, an input correlation of 0.9 was applied for the time for source removal between sources.

6.0 CALCULATIONS AND RESULTS

6.1 Room dimensions: dimensions of a representative room are 18.5ft by 27.8ft by 8.17ft (5.64m by 8.47m by 2.49m) shown in Figure 2. Table 2 shows the unit conversion for the room dimensions and the area associated with each source (i.e., floor and walls).

6.2 Direct ingestion rate (h^{-1}) is calculated from the indirect ingestion rate from NUREG/CR-6755 [ref. 3.5], $1.1\text{E-}04 \text{ m}^2/\text{h}$, and the total source area (using the floor and wall areas), 118.03 m^2 , as follows:

$$(1.1\text{E-}04 \text{ m}^2/\text{h})/(118.036 \text{ m}^2) = 9.32\text{E-}7 \text{ h}^{-1}$$

6.3 Using the dimensions for the designated north and east walls in Figure 2 (18.5 ft and 27.8 ft, respectively) and a wall height of 8.17 ft (Figure 2), the locations of the centers of the sources were determined as the mid-point on the X, Y, and Z-axes. Table 3 presents the locations for the center of the sources.

6.4 RESRAD-Build v3.5 results: Table 1 summarizes the input used in each RESRAD-Build code execution. Appendix A provides copies of selected pages from the RESRAD-Build uncertainty reports.

6.4.1 Each of the radionuclides listed in section 5.1 was evaluated in separate code executions.

6.5 PRCC values were reviewed against the sensitivity criterion (i.e., $|PRCC| \geq 0.1$). Deposition velocity, the resuspension rate, and the time for source removal were identified as sensitive input parameters for all ROCs. Table 4 summarizes the sensitive parameters by radionuclide.

6.6 The 25th and 75th percentile values for sensitive input parameters were obtained through use of the interactive output in the RESRAD-Build code. Table 5 presents these values.

6.6.1 A comparison of the 25th and 75th percentiles values obtained from the RESRAD-Build code to the distributions given in NUREG/CR-6697 [ref. 3.4] indicates that the 25th and 75th percentile values are reasonably conservative. Table 5 includes this comparison.

7.0 CONCLUSION

7.1 Deposition velocity, resuspension rate, time for source removal, and building air exchange rate are sensitive input parameters to the building occupancy scenario for each of the ROCs.

7.2 The 25th and 75th percentile values for sensitive input parameters have been determined from the parameter distributions and are reasonably conservative when compared with the distributions from NUREG/CR-6697 [ref. 3.4].

7.3 The 25th and 75th percentile values for sensitive input parameters are recommended for use as input for building surfaces DCGLs.

Parameter	Type^a	Priority^b	Treat- ment^c	Value or Distribution	Value/Distribution Reference Source	Distribution's Statistical Parameters^d			
						1	2	3	4
Exposure Duration (d)	B	3	D	365.25	NUREG/CR-5512, Vol.3,section 5.2.1	NR ^e	NR	NR	NR
Indoor Fraction	B	2	D	0.267	NUREG/CR-5512, Vol.3,section 5.2.2.4	NR	NR	NR	NR
Evaluation Time (y)	P	3	D	1 or multiple (e.g., 1,10, 50, 100)	T=1 corresponds to dose over the 1 st year	NR	NR	NR	NR
Number of Rooms	P	3	D	1	NUREG/CR-5512	NR	NR	NR	NR
Deposition Velocity (m/s)	P	2	S	Loguniform	NUREG/CR-6755, Section 3.3; NUREG/CR-6697, Att.C, section 7.5	2.70E-06	2.70E-03	-	-
Resuspension Rate (s ⁻¹)	P	1	S	Loguniform	NUREG/CR-6755, Section 3.1	2.5E-11	1.3E-5	-	-
Air Exchange Rate for Room (h ⁻¹)	B	2	S	Truncated Lognormal	NUREG/CR-6755, Section 3.2	0.4187	0.88	0.001	0.999
Room Area (m ²)	P	2	D	47.77	Site-specific data for representative room (General Office Building)	NR	NR	NR	NR
Room Height (m)	P	2	D	2.49	Site-specific data for representative room (General Office Building)	NR	NR	NR	NR
Time Fraction	B	3	D	1	NUREG/CR-5512	NR	NR	NR	NR
Inhalation Rate (m ³ /d)	M	2	D	33.6	NUREG/CR-5512, vol. 3, section 5.3.4	NR	NR	NR	NR
Indirect Ingestion Rate (m ² /h)	B	2	D	0.0001	NUREG/CR-5512, vol.3, section 5.2.3.3	NR	NR	NR	NR
Receptor Location (x-, y-, z-axis)	B	3	D	4.24, 2.82,1.0	NUREG/CR-5512; center of room based on site-specific room dimensions	NR	NR	NR	NR
Shielding Thickness (cm)	P	2	D	0	Site-specific model-no shielding assumed	NR	NR	NR	NR

Table 1 Input Parameter Values for Sensitivity Analysis									
Parameter	Type ^a	Priority ^b	Treat- ment ^c	Value or Distribution	Value/Distribution Reference Source	Distribution's Statistical Parameters ^d			
						1	2	3	4
Shielding Density (g/cm ³)	P	1	D	N/A	Site-specific model-no shielding assumed	NR	NR	NR	NR
Shielding Material	P	3	D	N/A	Site-specific model-no shielding assumed	NR	NR	NR	NR
Number of Sources	P	3	D	6	Site-specific modeling (includes floor, 4 walls, and ceiling)				
External Dose Conversion Factor, (mrem/y per pCi/cm ²)	M	3	D	RESRAD-Build Dose Conversion Library	FGR12				
Air Submersion Dose Conversion Factor, (mrem/y per pCi/m ³)	M	3	D	RESRAD-Build Dose Conversion Library	FGR12				
Inhalation Dose Conversion Factor, (mrem/pCi)	M	3	D	RESRAD-Build Dose Conversion Library	FGR11				
Ingestion Dose Conversion Factor, (mrem/pCi)	M	3	D	RESRAD-Build Dose Conversion Library	FGR11				
Source 1: Floor									
Type	P	3	D	area	NUREG/CR-5512				
Direction	P	3	D	Z	NUREG/CR-5512				
Location of Center of Source: x,y,z (m)	P	3	D	4.24, 2.82, 0.0	site-specific data based on dimensions for representative room				
Source length X-axis (m)	P	2	D	8.47	site-specific data based on dimensions for representative room				
Source length Y-axis (m)	P	2	D	5.64	site-specific data based on dimensions for representative room				
Area (m ²)	P	2	D	---	Source length inputs used				
Air Fraction for H-3	B	2	D	1.0	NUREG/CR-6697, Att. C Section 8.6				

Table 1 Input Parameter Values for Sensitivity Analysis									
Parameter	Type ^a	Priority ^b	Treat- ment ^c	Value or Distribution	Value/Distribution Reference Source	Distribution's Statistical Parameters ^d			
						1	2	3	4
Air Fraction (all nuclides other than H-3)	B	2	D	0.07	NUREG/CR-6697, Att. C Section 8.6				
Direct Ingestion (h ⁻¹)	B	2	D	9.32E-7	NUREG/CR6755, A.3.3				
Removable Fraction	P	1	D	0.1	NUREG/CR-6755, section 3.5				
Time for Source Removal (d)	P	2	S	Triangular	NUREG/CR-6755, Section 3.6; NUREG/CR-6697, Att.C, 8.8	1,000	100,000	10,000	-
Radionuclide Concentration (pCi/m ²)	P	2	D	1.0	-	-	-	-	-
Source 2: North Wall									
Type	P	3	D	Area	NUREG/CR-5512				
Direction	P	3	D	Y	NUREG/CR-5512				
Location of Center of Source: x,y,z (m)	P	3	D	4.24, 0.0, 1.25	site-specific data based on dimensions for representative room				
Source length X-axis (m)	P	2	D	8.47	site-specific data based on dimensions for representative room				
Source length Z-axis (m)	P	2	D	2.49	site-specific data based on dimensions for representative room				
Area (m ²)	P	2	D	---	Source length inputs used				
Air Fraction for H-3	B	2	D	1.0	NUREG/CR-6697, Att. C Section 8.6				
Air Fraction (all nuclides other than H-3)	B	2	D	0.07	NUREG/CR-6697, Att. C Section 8.6				
Direct Ingestion (h ⁻¹)	B	2	D	9.32E-7	NUREG/CR6755, A.3.3				
Removable Fraction	P	1	D	0.1	NUREG/CR-6755, section 3.5				

Table 1 Input Parameter Values for Sensitivity Analysis									
Parameter	Type ^a	Priority ^b	Treat- ment ^c	Value or Distribution	Value/Distribution Reference Source	Distribution's Statistical Parameters ^d			
						1	2	3	4
Time for Source Removal (d)	P	2	S	Triangular	NUREG/CR-6755, Section 3.6; NUREG/CR-6697, Att.C, 8.8	1,000	100,000	10,000	-
Radionuclide Concentration (pCi/m ²)	P	2	D	1.0	-	-	-	-	-
Source 3: East Wall									
Type	P	3	D	Area	NUREG/CR-5512				
Direction	P	3	D	X	NUREG/CR-5512				
Location of Center of Source: x,y,z (m)	P	3	D	0.00, 2.82, 1.25	site-specific data based on dimensions for representative room				
Source length Y-axis (m)	P	2	D	5.64	site-specific data based on dimensions for representative room				
Source length Z-axis (m)	P	2	D	2.49	site-specific data based on dimensions for representative room				
Area (m ²)	P	2	D	---	Source length inputs used				
Air Fraction for H-3	B	2	D	1.0	NUREG/CR-6697, Att. C, Section 8.6				
Air Fraction (all nuclides other than H-3)	B	2	D	0.07	NUREG/CR-6697, Att. C, Section 8.6				
Direct Ingestion (h ⁻¹)	B	2	D	9.32E-7	NUREG/CR6755, A.3.3				
Removable Fraction	P	1	D	0.1	NUREG-1727, Table C.7.1; NUREG/CR- 6755, section 3.5				
Time for Source Removal (d)	P	2	S	Triangular	NUREG/CR-6755, Section 3.6; NUREG/CR-6697, Att.C, 8.8	1,000	100,000	10,000	-
Radionuclide Concentration (pCi/m ²)	P	2	D	1.0	-	-	-	-	-
Source 4: South Wall									
Type	P	3	D	area	NUREG/CR-5512				
Direction	P	3	D	Y	NUREG/CR-5512				

Table 1 Input Parameter Values for Sensitivity Analysis									
Parameter	Type ^a	Priority ^b	Treat- ment ^c	Value or Distribution	Value/Distribution Reference Source	Distribution's Statistical Parameters ^d			
						1	2	3	4
Location of Center of Source: x,y,z (m)	P	3	D	4.24, 5.64, 1.25	site-specific data based on dimensions for representative room				
Source length X-axis (m)	P	2	D	8.47	site-specific data based on dimensions for representative room				
Source length Z-axis (m)	P	2	D	2.49	site-specific data based on dimensions for representative room				
Area (m ²)	P	2	D	---	Source length inputs used				
Air Fraction for H-3	B	2	D	1.0	NUREG/CR-6697, Att. C Section 8.6				
Air Fraction (all nuclides other than H-3)	B	2	D	0.07	NUREG/CR-6697, Att. C Section 8.6				
Direct Ingestion (h ⁻¹)	B	2	D	9.32E-7	NUREG/CR6755, A.3.3				
Removable Fraction	P	1	D	0.1	NUREG/CR-6755, section 3.5				
Time for Source Removal (d)	P	2	S	Triangular	NUREG/CR-6755, Section 3.6; NUREG/CR-6697, Att.C, 8.8	1,000	100,000	10,000	-
Radionuclide Concentration (pCi/m ²)	P	2	D	1.0	-	-	-	-	-
Source 5: West Wall									
Type	P	3	D	area	NUREG/CR-5512				
Direction	P	3	D	X	NUREG/CR-5512				
Location of Center of Source: x,y,z (m)	P	3	D	8.47, 2.82, 1.25	site-specific data based on dimensions for representative room				
Source length Y-axis (m)	P	2	D	5.64	site-specific data based on dimensions for representative room				
Source length Z-axis (m)	P	2	D	2.49	site-specific data based on dimensions for representative room				

Table 1 Input Parameter Values for Sensitivity Analysis									
Parameter	Type ^a	Priority ^b	Treat- ment ^c	Value or Distribution	Value/Distribution Reference Source	Distribution's Statistical Parameters ^d			
						1	2	3	4
Area (m ²)	P	2	D	---	Source length inputs used				
Air Fraction for H-3	B	2	D	1.0	NUREG/CR-6697, Att. C Section 8.6				
Air Fraction (all nuclides other than H-3)	B	2	D	0.07	NUREG/CR-6697, Att. C Section 8.6				
Direct Ingestion (h ⁻¹)	B	2	D	9.32E-7	NUREG/CR6755, A.3.3				
Removable Fraction	P	1	D	0.1	NUREG-1727, Table C.7.1; NUREG/CR- 6755, section 3.5				
Time for Source Removal (d)	P	2	S	Triangular	NUREG/CR-6755, Section 3.6; NUREG/CR-6697, Att.C, 8.8	1,000	100,000	10,000	-
Radionuclide Concentration (pCi/m ²)	P	2	D	1.0	-	-	-	-	-
Source 6: Ceiling									
Type	P	3	D	area	NUREG/CR-5512				
Direction	P	3	D	Z	NUREG/CR-5512				
Location of Center of Source: x,y,z (m)	P	3	D	4.24, 2.82, 2.49	site-specific data based on dimensions for representative room				
Source length X-axis (m)	P	2	D	8.47	site-specific data based on dimensions for representative room				
Source length Y-axis (m)	P	2	D	5.64	site-specific data based on dimensions for representative room				
Area (m ²)	P	2	D	---	Source length inputs used				
Air Fraction for H-3	B	2	D	1.0	NUREG/CR-6697, Att. C Section 8.6				
Air Fraction (all nuclides other than H-3)	B	2	D	0.07	NUREG/CR-6697, Att. C Section 8.6				
Direct Ingestion (h ⁻¹)	B	2	D	9.32E-7	NUREG/CR6755, A.3.3				

Table 1 Input Parameter Values for Sensitivity Analysis									
Parameter	Type ^a	Priority ^b	Treat- ment ^c	Value or Distribution	Value/Distribution Reference Source	Distribution's Statistical Parameters ^d			
						1	2	3	4
Removable Fraction	P	1	D	0.1	NUREG-1727, Table C.7.1; NUREG/CR-6755, section 3.5				
Time for Source Removal (d)	P	2	S	Triangular	NUREG/CR-6755, Section 3.6; NUREG/CR-6697, Att.C, 8.8	1,000	100,000	10,000	-
Radionuclide Concentration (pCi/m ²)	P	2	D	1.0	-	-	-	-	-

Table 1 notes:

^a P = physical, B = behavioral, M = metabolic; (see NUREG/CR-6697, Attachment B, Table 4.)

^b 1 = high-priority parameter, 2 = medium-priority parameter, 3 = low-priority parameter (see NUREG/CR-6697, Attachment B, Table 4.1)

^c D = deterministic, S = stochastic

^d Distribution Statistical Parameters:

Loguniform: 1 = minimum, 2 = maximum

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

^e NR = none recommended

Additional Sensitivity Analysis Data:

Random Seed = 1000

Number of observations = 300

Number of repetitions = 1

Input Rank Correlation Coefficients:

Resuspension Rate and Deposition Velocity = 0.9

Time for source removal (correlation set between sources) = 0.9

Table 2: Representative Room Dimensions

Source No.	Description	Recorded Dimension (ft) ^a	m ^b	m ²
1	floor	N/A		47.77
2	north wall	27.8	8.47	21.09
3	east wall	18.5	5.64	14.04
4	south wall	27.8	8.47	21.09
5	west wall	18.5	5.64	14.04
	wall height	8.17	2.49	
total source area:				118.03

^a Recorded length and width dimensions for representative room (see Figure 2).

^b Feet to meter conversion factor: 1ft = 0.3048m.

Table 3: Location of Center of Sources

Source No.	Source Description	Location of Center of Source (m)		
		X-axis	Y-axis	Z-axis
1	floor	4.24	2.82	0.00
2	north wall	4.24	0.00	1.25
3	east wall	0.00	2.82	1.25
4	south wall	4.24	5.64	1.25
5	west wall	8.47	2.82	1.25
6	ceiling	4.24	2.82	2.49

Table 4: Sensitive RESRAD-Build Input Parameters by Radionuclide

Radionuclide	LAMBDAT ^a	RFO ^b (source #)	UD ^c (source #)	DKSUS ^d (source #)
Am-241	-0.96 (1) -0.97 (2, 3, 4, 5, 6)	-0.71 (1, 4) -0.70 (2, 6) -0.69 (3, 5)	NS ^e (1, 2, 3, 4, 5, 6)	NS (1, 2, 3, 4, 5, 6)
C-14	-0.64 (1, 3, 6) -0.62 (2, 4) -0.63 (5)	0.43 (1) 0.39 (2) 0.36 (3) 0.46 (4) 0.41 (5) 0.31 (6)	0.27 (1, 2, 6) 0.28 (3, 5) 0.30 (4)	-0.50 (1, 2, 3, 6) -0.51 (4) -0.52 (5)
Cm-243	-0.96 (1) -0.97 (2, 3, 4, 5, 6)	-0.71 (1, 2, 4) -0.69 (3, 5, 6)	NS (1, 2, 3, 4, 5, 6)	NS (1, 2, 3, 4, 5, 6)
Cm-244	-0.96 (1) -0.97 (2, 3, 4, 5, 6)	-0.71 (1, 2, 4) -0.69 (3, 5, 6)	NS (1, 2, 3, 4, 5, 6)	NS (1, 2, 3, 4, 5, 6)
Cm-245	-0.96 (1) -0.97 (2, 3, 4, 5, 6)	-0.71 (1, 4) -0.70 (2) -0.68 (5) -0.69 (3, 6)	NS (1, 2, 3, 4, 5, 6)	NS (1, 2, 3, 4, 5) -0.11 (6)
Cm-246	-0.96 (1) -0.97 (2, 3, 4, 5, 6)	-0.71 (1, 4) -0.70 (2, 6) -0.69 (3) -0.68 (5)	NS (1, 2, 3, 4, 5, 6)	NS (1, 2, 3, 4, 5) -0.11 (6)
Co-60	-0.45 (1) -0.73 (2) -0.71 (3) -0.76 (4) -0.72 (5) -0.37 (6)	0.56 (1) 0.41 (2) 0.23 (3) 0.46 (4) 0.35 (5) 0.73 (6)	NS (1, 2, 3) 0.13 (4) 0.11 (5) 0.12 (6)	NS (1, 2, 3) -0.14 (4) -0.13 (5) -0.50 (6)
Cs-137	-0.46 (1) -0.40 (2) -0.59 (3) -0.41 (4) -0.57 (5) -0.52 (6)	0.69 (1) 0.57 (2) 0.66 (3) 0.54 (4) 0.69 (5) 0.63 (6)	0.36 (1) 0.23 (2) 0.41 (3) 0.27 (4) 0.37 (5) 0.35 (6)	-0.44 (1) -0.27 (2) -0.48 (3) -0.33 (4) -0.44 (5) -0.42 (6)
Eu-152	-0.80 (1) -0.83 (2) -0.94 (3, 5) -0.83 (4) -0.84 (6)	0.49 (1) 0.13 (2) NS (3, 5) -0.43 (4) 0.44 (6)	NS (1, 2, 4, 6) 0.23 (3) 0.19 (5)	-0.12 (1) -0.13 (2) -0.24 (3) NS (4, 6) -0.22 (5)
Eu-154	-0.83 (1) -0.87 (2, 4, 6) -0.95 (3, 5)	0.48 (1) 0.12 (2) NS (3, 5) 0.11 (4) 0.33 (6)	NS (1, 2, 4, 6) 0.19 (3) 0.15 (5)	NS (1, 2, 4, 6) -0.20 (3) -0.16 (5)

Table 4: Sensitive RESRAD-Build Input Parameters by Radionuclide

H-3	-0.94 (1, 6) -0.95 (2, 3, 4, 5)	-0.45 (1) -0.49 (2) -0.41 (3) -0.55 (4) -0.42 (5) -0.47 (6)	0.48 (1) 0.51 (2) 0.45 (3) 0.46 (4) 0.47 (5) 0.49 (6)	-0.53 (1, 4, 5) -0.57 (2) -0.52 (3) -0.55 (6)
I-129	-0.58 (1, 3) -0.54 (2) -0.56 (4, 5) -0.57 (6)	0.48 (1) 0.43 (2, 5) 0.39 (3) 0.49 (4) 0.37 (6)	0.29 (1, 6) 0.28 (2) 0.30 (3, 5) 0.31 (4)	-0.54 (1, 3, 4, 5, 6) -0.52 (2)
Nb-94	-0.76 (1) -0.90 (2, 4) -0.94 (3, 5) -0.88 (6)	0.30 (1) NS (2, 4) -0.12 (3) -0.20 (5) 0.16 (6)	0.19 (1) 0.30 (2) 0.33 (3) 0.26 (4) 0.32 (5) 0.20 (6)	-0.31 (1) -0.44 (2) -0.49 (3) -0.40 (4) -0.48 (5) -0.36 (6)
Ni-59	-0.95 (1, 2, 3, 4, 5, 6)	-0.27 (1) -0.28 (2, 4, 5) -0.22 (3) -0.35 (6)	0.27 (1, 4, 5, 6) 0.29 (2) 0.26 (3)	-0.37 (1, 4) -0.41 (2) -0.38 (3) -0.39 (5, 6)
Ni-63	-0.95 (1, 2, 4, 5, 6) -0.96 (3)	-0.16 (1) -0.21 (2) -0.14 (3) -0.22 (4) -0.18 (5) -0.25 (6)	0.26 (1, 6) 0.29 (2) 0.27 (3) 0.25 (4, 5)	-0.28 (1, 5) -0.33 (2) -0.30 (3) -0.29 (4, 5) -0.31 (6)
Np-237	-0.96 (1) -0.97 (2, 3, 4, 5, 6)	-0.71 (1, 4) -0.70 (2) -0.69 (3, 5, 6)	NS (1, 2, 3, 4, 5, 6)	NS (1, 2, 3, 4, 5, 6)
Pu-238	-0.96 (1) -0.97 (2, 3, 4, 5, 6)	-0.71 (1) -0.70 (2) -0.69 (3, 5, 6) -0.72 (4)	NS (1, 2, 3, 4, 5, 6)	NS (1, 2, 3, 4, 5, 6)
Pu-239	-0.96 (1) -0.97 (2, 3, 4, 5, 6)	-0.71 (1, 4) -0.70 (2, 6) -0.69 (3) -0.68 (5)	NS (1, 2, 3, 4, 5, 6)	NS (1, 2, 3, 4, 5, 6)
Pu-240	-0.96 (1) -0.97 (2, 3, 4, 5, 6)	-0.71 (1, 4) -0.70 (2, 6) -0.69 (3) -0.68 (5)	NS (1, 2, 3, 4, 5, 6)	NS (1, 2, 3, 4, 5, 6)
Pu-241	-0.96 (1) -0.97 (2, 3, 4, 5, 6)	-0.71 (1, 2, 4) -0.69 (3, 5, 6)	NS (1, 2, 3, 4, 5, 6)	NS (1, 2, 3, 4, 5, 6)

Table 4: Sensitive RESRAD-Build Input Parameters by Radionuclide

Sr-90	-0.95 (1, 2, 3, 4, 5, 6)	NS (1, 2, 3, 4, 5, 6)	0.22 (1)	-0.22 (1, 4, 6) -0.26 (2) -0.25 (3) -0.23 (5)
			0.23 (2)	
			0.24 (3)	
			0.19 (4)	
			0.21 (5)	
			0.18 (6)	
Tc-99	-0.90 (1, 3, 4, 5, 6) -0.91 (2)	NS (1, 2, 6) 0.15 (3) 0.13 (4) 0.11 (5)	0.27 (1, 4)	-0.45 (1, 5) -0.46 (2) -0.44 (3, 4) -0.43 (6)
			0.29 (2)	
			0.28 (3, 5)	
			0.25 (6)	

^a LAMBDAT = building air exchange rate

^b RFO(#) = source removal time (for source number)

^c UD = deposition velocity

^d DKSUS = resuspension rate

^e NS = not sensitive

Table 5: 25th and 75th Percentile Values for Sensitive Parameters

Note: The 25th and 75th percentile values are the same for a given number of observations. Therefore, because 300 observations were used in the sensitivity analysis for each radionuclide, the 25th and 75th percentile values are the same for each radionuclide.

Parameter ^a	Percentile Value			NUREG/CR-6697 [ref. 3.4] Distribution		
	25 th	50 th	75 th	Minimum	Median	Maximum
UD	1.51790E-05	8.52364E-05	4.78217E-04	2.7x10 ⁻⁶	8.5x10 ⁻⁵	2.7x10 ⁻³
DKSUS	6.70403E-10	1.79444E-08	4.87543E-07	2.8x10 ⁻¹⁰	4.9x10 ⁻⁸	1.4x10 ⁻⁵
RFO(1)	1.82493E+04	3.30569E+04	5.26952E+04	1,000	10,000 ^b	100,000
RFO(2)	1.82301E+04	3.32029E+04	5.27188E+04			
RFO(3)	1.81302E+04	3.30489E+04	5.27756E+04			
RFO(4)	1.82071E+04	3.30410E+04	5.27269E+04			
RFO(5)	1.80948E+04	3.31085E+04	5.27132E+04			
RFO(6)	1.82466E+04	3.30500E+04	5.26222E+04			
LAMBDAT	8.35789E-01	1.51522E+00	2.72646E+00	1.4x10 ⁻¹	1.5x10 ⁰	1.6x10 ¹

^a RFO(#) = source removal time (for source number), UD = deposition velocity, DKSUS = resuspension rate, and LAMBDAT = building air exchange rate.

^b Most likely value.

Figure 1: Parameter Selection Process

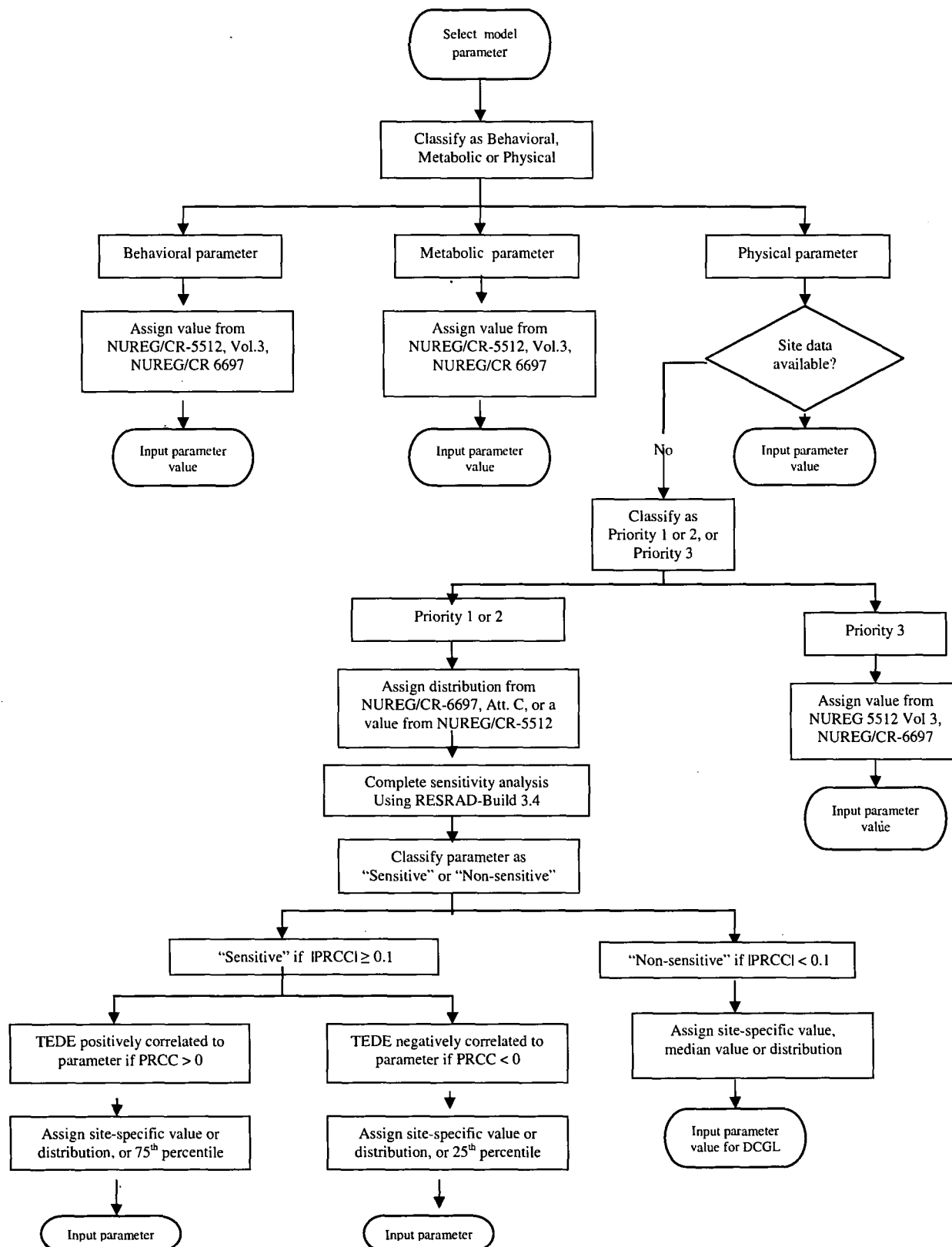
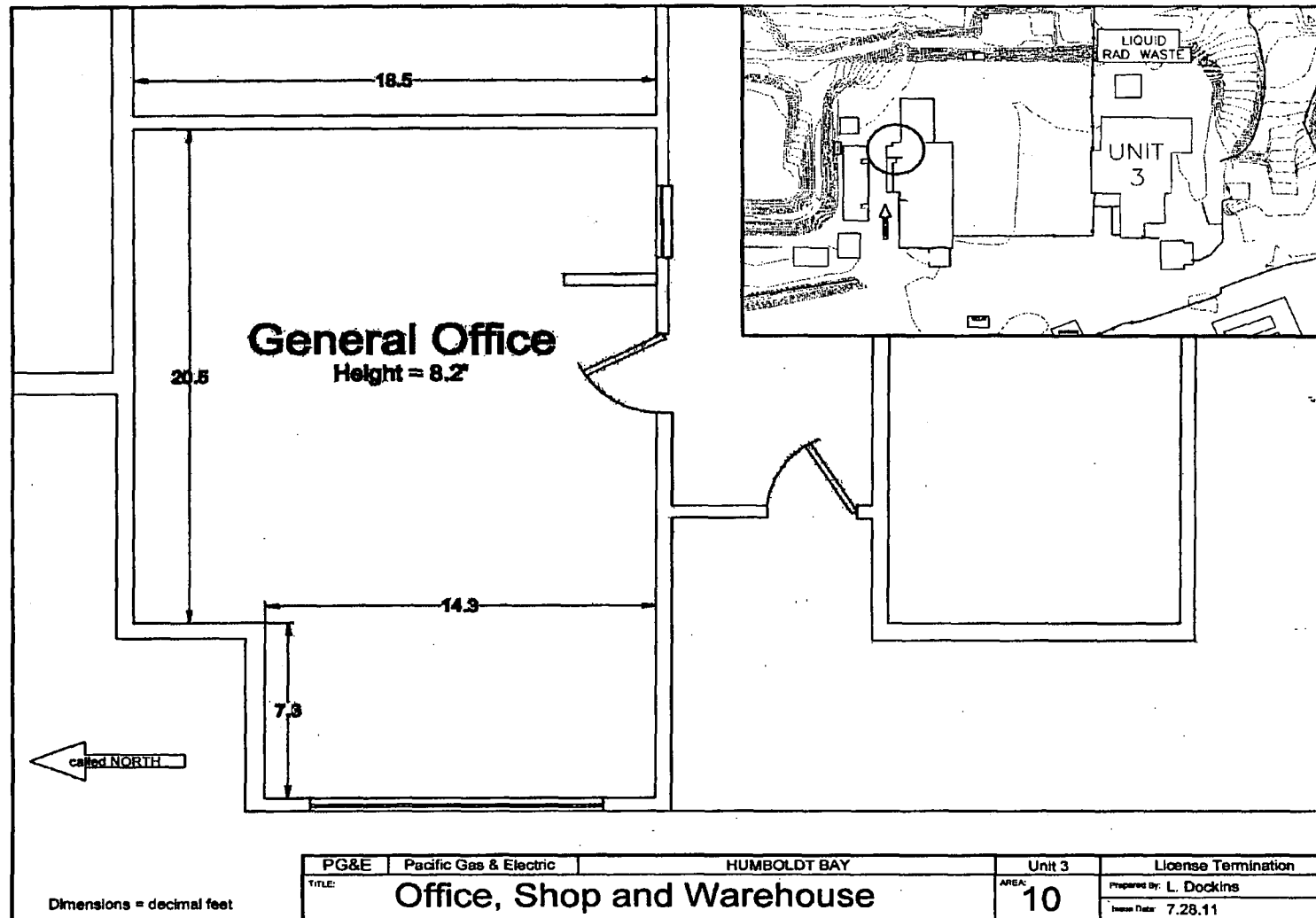


Figure 2: Dimensions of Representative Room



Appendix A
Selected Pages from RESRAD-Build Uncertainty Reports

Am-241 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/02/11 22:35:48 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Am241
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Am241.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/02/11 22:35:48 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Am241
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Am241.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/02/11 22:35:48 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Am241
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Am241.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1 ***							
Minimum	3.83E-05	1.68E-05	1.12E-05	1.68E-05	1.12E-05	3.82E-05	1.32E-04
Maximum	2.30E-04	8.01E-05	7.58E-05	8.14E-05	4.77E-05	2.46E-04	7.53E-04
Average	4.58E-05	2.02E-05	1.35E-05	2.01E-05	1.34E-05	4.58E-05	1.59E-04
Std.Dev	1.54E-05	6.54E-06	5.16E-06	6.24E-06	4.29E-06	1.56E-05	5.13E-05
* Total *							
Minimum	3.83E-05	1.68E-05	1.12E-05	1.68E-05	1.12E-05	3.82E-05	1.32E-04
Maximum	2.30E-04	8.01E-05	7.58E-05	8.14E-05	4.77E-05	2.46E-04	7.53E-04
Average	4.58E-05	2.02E-05	1.35E-05	2.01E-05	1.34E-05	4.58E-05	1.59E-04
Std.Dev	1.54E-05	6.54E-06	5.16E-06	6.24E-06	4.29E-06	1.56E-05	5.13E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/02/11 22:35:48 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Am241
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Am241.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	3.75E-05	1.65E-05	1.08E-05	1.64E-05	1.09E-05	3.71E-05	1.29E-04
Maximum	2.28E-04	7.92E-05	7.49E-05	8.05E-05	4.56E-05	2.43E-04	7.45E-04
Average	4.51E-05	1.99E-05	1.33E-05	1.98E-05	1.32E-05	4.51E-05	1.56E-04
Std.Dev	1.50E-05	6.34E-06	5.04E-06	6.05E-06	4.14E-06	1.52E-05	5.00E-05
* Total *							
Minimum	3.75E-05	1.65E-05	1.08E-05	1.64E-05	1.09E-05	3.71E-05	1.29E-04
Maximum	2.28E-04	7.92E-05	7.49E-05	8.05E-05	4.56E-05	2.43E-04	7.45E-04
Average	4.51E-05	1.99E-05	1.33E-05	1.98E-05	1.32E-05	4.51E-05	1.56E-04
Std.Dev	1.50E-05	6.34E-06	5.04E-06	6.05E-06	4.14E-06	1.52E-05	5.00E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/02/11 22:35:48 Page: 29 **
Title : Humboldt Bay sensitivity analysis_Am241
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Am241.bld
Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	2.74E-07	5.17E-08	2.09E-08	5.17E-08	2.09E-08	2.00E-07	6.20E-07
Maximum	3.92E-05	1.85E-05	1.33E-05	1.90E-05	1.17E-05	4.32E-05	1.36E-04
Average	1.66E-05	7.29E-06	4.85E-06	7.31E-06	4.81E-06	1.68E-05	5.76E-05
Std.Dev	1.12E-05	4.96E-06	3.33E-06	4.95E-06	3.31E-06	1.13E-05	3.66E-05
* Total *							
Minimum	2.74E-07	5.17E-08	2.09E-08	5.17E-08	2.09E-08	2.00E-07	6.20E-07
Maximum	3.92E-05	1.85E-05	1.33E-05	1.90E-05	1.17E-05	4.32E-05	1.36E-04
Average	1.66E-05	7.29E-06	4.85E-06	7.31E-06	4.81E-06	1.68E-05	5.76E-05
Std.Dev	1.12E-05	4.96E-06	3.33E-06	4.95E-06	3.31E-06	1.13E-05	3.66E-05

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 22:35:48 Page: 81 **
Title : Humboldt Bay sensitivity analysis_Am241
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	5 -0.11	9 0.02	9 0.01
Resuspension Rate	2 0.09	4 0.13	7 -0.06	8 -0.03
Release time of 1	6 -0.04	6 -0.10	3 -0.30	3 -0.18
Release time of 2	9 -0.01	9 -0.03	5 -0.12	5 -0.07
Release time of 3	4 -0.07	2 -0.16	8 -0.05	7 -0.03
Release time of 4	8 -0.02	8 -0.06	4 -0.17	4 -0.10
Release time of 5	7 0.04	7 0.09	6 -0.08	6 -0.05
Release time of 6	5 -0.06	3 -0.14	2 -0.30	2 -0.18
Building Exchange Rate	1 -0.33	1 -0.31	1 -0.97	1 -0.79
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 22:35:48 Page: 82 **
Title : Humboldt Bay sensitivity analysis_Am241
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.07	6 -0.10	6 0.04	6 0.02
Resuspension Rate	3 0.10	4 0.15	3 -0.07	3 -0.03
Release time of 1	2 -0.11	2 -0.26	2 -0.71	2 -0.59
Release time of 2	9 0.00	9 0.00	9 -0.01	9 -0.01
Release time of 3	5 -0.06	3 -0.15	5 0.05	5 0.03
Release time of 4	8 -0.02	8 -0.05	4 -0.05	4 -0.03
Release time of 5	6 0.05	5 0.14	7 0.03	7 0.02
Release time of 6	7 -0.02	7 -0.06	8 -0.02	8 -0.01
Building Exchange Rate	1 -0.31	1 -0.29	1 -0.96	1 -0.78
R-SQUARE	0.23	0.23	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 22:35:48 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Am241
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.06	4 -0.09	9 0.02	9 0.01
Resuspension Rate	5 0.04	6 0.06	3 -0.06	3 -0.03
Release time of 1	9 -0.01	9 -0.02	8 -0.02	8 -0.01
Release time of 2	2 -0.10	2 -0.25	2 -0.70	2 -0.58
Release time of 3	4 -0.05	3 -0.12	5 0.03	5 0.02
Release time of 4	8 -0.01	8 -0.03	4 -0.04	4 -0.02
Release time of 5	6 0.03	5 0.07	7 0.02	7 0.01
Release time of 6	7 -0.02	7 -0.05	6 -0.02	6 -0.01
Building Exchange Rate	1 -0.33	1 -0.30	1 -0.97	1 -0.78
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 22:35:48 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Am241
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	3 -0.10	5 -0.02	5 -0.01
Resuspension Rate	4 0.06	4 0.09	6 -0.02	8 -0.01
Release time of 1	7 -0.02	7 -0.05	9 0.00	9 0.00
Release time of 2	9 0.00	9 0.00	8 0.02	7 0.01
Release time of 3	2 -0.12	1 -0.30	2 -0.69	2 -0.57
Release time of 4	8 -0.01	8 -0.01	3 -0.03	3 -0.02
Release time of 5	5 0.03	5 0.09	7 0.02	6 0.01
Release time of 6	6 -0.03	6 -0.08	4 -0.02	4 -0.01
Building Exchange Rate	1 -0.29	2 -0.27	1 -0.97	1 -0.79
R-SQUARE	0.20	0.20	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 22:35:48 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Am241
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	5 -0.10	9 -0.02	9 -0.01
Resuspension Rate	4 0.06	6 0.09	8 -0.02	8 -0.01
Release time of 1	8 -0.01	8 -0.02	7 -0.02	7 -0.01
Release time of 2	9 0.00	9 -0.01	4 0.04	4 0.02
Release time of 3	5 -0.05	3 -0.11	3 0.06	3 0.04
Release time of 4	2 -0.12	2 -0.29	2 -0.71	2 -0.59
Release time of 5	6 0.04	4 0.10	6 -0.03	6 -0.02
Release time of 6	7 -0.03	7 -0.07	5 -0.04	5 -0.02
Building Exchange Rate	1 -0.34	1 -0.31	1 -0.97	1 -0.79
R-SQUARE	0.26	0.26	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 22:35:48 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Am241
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.09	4 -0.12	9 0.00	9 0.00
Resuspension Rate	4 0.08	5 0.12	5 -0.03	6 -0.01
Release time of 1	8 0.01	8 0.02	8 0.01	8 0.01
Release time of 2	7 -0.01	7 -0.02	6 0.03	5 0.01
Release time of 3	5 -0.06	3 -0.15	7 0.02	7 0.01
Release time of 4	9 0.00	9 -0.01	3 -0.07	3 -0.04
Release time of 5	2 -0.09	2 -0.21	2 -0.69	2 -0.55
Release time of 6	6 -0.02	6 -0.04	4 -0.04	4 -0.02
Building Exchange Rate	1 -0.33	1 -0.31	1 -0.97	1 -0.79
R-SQUARE	0.26	0.26	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 22:35:48 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Am241
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.08	6 -0.11	4 0.05	5 0.02
Resuspension Rate	3 0.10	3 0.15	3 -0.08	3 -0.04
Release time of 1	7 -0.01	7 -0.03	7 -0.03	7 -0.02
Release time of 2	9 0.01	9 0.01	8 0.01	8 0.01
Release time of 3	5 -0.06	4 -0.15	6 0.04	6 0.02
Release time of 4	8 -0.01	8 -0.02	5 -0.05	4 -0.03
Release time of 5	6 0.05	5 0.12	9 0.00	9 0.00
Release time of 6	2 -0.12	1 -0.30	2 -0.70	2 -0.57
Building Exchange Rate	1 -0.32	2 -0.29	1 -0.97	1 -0.79
R-SQUARE	0.23	0.23	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

C-14 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/02/11 06:20:54 Page: 1 **
Title : Humboldt Bay sensitivity analysis_C14
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-C14.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/02/11 06:20:54 Page: 2 **
Title : Humboldt Bay sensitivity analysis_C14
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-C14.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RFO(1, 1)	TRIANGULAR	1000 10000 100000
4	RFO(2, 1)	TRIANGULAR	1000 10000 100000
5	RFO(3, 1)	TRIANGULAR	1000 10000 100000
6	RFO(4, 1)	TRIANGULAR	1000 10000 100000
7	RFO(5, 1)	TRIANGULAR	1000 10000 100000
8	RFO(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/02/11 06:20:54 Page: 3 **
Title : Humboldt Bay sensitivity analysis_C14
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-C14.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	2.01E-08	9.02E-09	6.02E-09	9.22E-09	6.00E-09	2.05E-08	7.21E-08
Maximum	2.51E-08	1.11E-08	7.39E-09	1.09E-08	7.47E-09	2.54E-08	8.68E-08
Average	2.19E-08	9.61E-09	6.39E-09	9.61E-09	6.39E-09	2.18E-08	7.57E-08
Std.Dev	3.40E-10	1.49E-10	9.76E-11	1.34E-10	1.01E-10	3.07E-10	1.09E-09
* Total *							
Minimum	2.01E-08	9.02E-09	6.02E-09	9.22E-09	6.00E-09	2.05E-08	7.21E-08
Maximum	2.51E-08	1.11E-08	7.39E-09	1.09E-08	7.47E-09	2.54E-08	8.68E-08
Average	2.19E-08	9.61E-09	6.39E-09	9.61E-09	6.39E-09	2.18E-08	7.57E-08
Std.Dev	3.40E-10	1.49E-10	9.76E-11	1.34E-10	1.01E-10	3.07E-10	1.09E-09

** RESRAD-BUILD Probabilistic Output 3.50 12/02/11 06:20:54 Page: 16 **
Title : Humboldt Bay sensitivity analysis_C14
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-C14.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	1.60E-08	7.19E-09	4.88E-09	7.58E-09	4.79E-09	1.71E-08	6.35E-08
Maximum	2.46E-08	1.09E-08	7.09E-09	1.07E-08	7.01E-09	2.48E-08	8.51E-08
Average	2.15E-08	9.45E-09	6.28E-09	9.45E-09	6.28E-09	2.15E-08	7.44E-08
Std.Dev	5.80E-10	2.55E-10	1.60E-10	2.48E-10	1.60E-10	5.59E-10	1.84E-09

* Total *							
Minimum	1.60E-08	7.19E-09	4.88E-09	7.58E-09	4.79E-09	1.71E-08	6.35E-08
Maximum	2.46E-08	1.09E-08	7.09E-09	1.07E-08	7.01E-09	2.48E-08	8.51E-08
Average	2.15E-08	9.45E-09	6.28E-09	9.45E-09	6.28E-09	2.15E-08	7.44E-08
Std.Dev	5.80E-10	2.55E-10	1.60E-10	2.48E-10	1.60E-10	5.59E-10	1.84E-09

** RESRAD-BUILD Probabilistic Output 3.50 12/02/11 06:20:54 Page: 29 **
Title : Humboldt Bay sensitivity analysis_C14
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-C14.bld
Evaluation Time: 50.000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	1.58E-10	3.15E-11	1.33E-11	3.15E-11	1.33E-11	1.18E-10	3.65E-10
Maximum	1.76E-08	7.75E-09	5.14E-09	7.74E-09	5.15E-09	1.76E-08	6.05E-08
Average	8.52E-09	3.72E-09	2.47E-09	3.72E-09	2.47E-09	8.48E-09	2.94E-08
Std.Dev	6.24E-09	2.75E-09	1.83E-09	2.75E-09	1.83E-09	6.23E-09	2.04E-08

* Total *							
Minimum	1.58E-10	3.15E-11	1.33E-11	3.15E-11	1.33E-11	1.18E-10	3.65E-10
Maximum	1.76E-08	7.75E-09	5.14E-09	7.74E-09	5.15E-09	1.76E-08	6.05E-08
Average	8.52E-09	3.72E-09	2.47E-09	3.72E-09	2.47E-09	8.48E-09	2.94E-08
Std.Dev	6.24E-09	2.75E-09	1.83E-09	2.75E-09	1.83E-09	6.23E-09	2.04E-08

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 06:20:54 Page: 81 **
Title : Humboldt Bay sensitivity analysis_C14
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total Coefficient = Repetition =	at Time: 1	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.07	2 -0.12	3 0.28	3 0.33	
Resuspension Rate	6 -0.02	9 -0.03	2 -0.51	1 -0.68	
Release time of 1	3 0.04	3 0.11	4 0.18	4 0.26	
Release time of 2	8 -0.01	7 -0.04	8 0.02	8 0.03	
Release time of 3	9 -0.01	8 -0.04	9 -0.01	9 -0.01	
Release time of 4	4 0.03	4 0.07	5 0.14	5 0.20	
Release time of 5	5 0.02	5 0.07	6 0.07	6 0.10	
Release time of 6	7 -0.02	6 -0.05	7 0.03	7 0.05	
Building Exchange Rate	1 -0.21	1 -0.21	1 -0.64	2 -0.43	
R-SQUARE	0.08	0.08	0.73	0.73	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 06:20:54 Page: 82 **
Title : Humboldt Bay sensitivity analysis_C14
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.07	3 -0.11	4 0.27	4 0.32
Resuspension Rate	5 -0.02	9 -0.04	2 -0.50	2 -0.65
Release time of 1	3 0.06	2 0.16	3 0.43	1 0.67
Release time of 2	9 -0.01	8 -0.04	9 -0.03	9 -0.04
Release time of 3	7 -0.02	6 -0.05	7 -0.04	7 -0.06
Release time of 4	6 0.02	5 0.06	5 0.09	5 0.12
Release time of 5	8 0.02	7 0.05	8 0.04	8 0.05
Release time of 6	4 -0.02	4 -0.07	6 -0.08	6 -0.12
Building Exchange Rate	1 -0.20	1 -0.19	1 -0.64	3 -0.43
R-SQUARE	0.07	0.07	0.74	0.74

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 06:20:54 Page: 83 **
Title : Humboldt Bay sensitivity analysis_C14
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.08	2 -0.12	4 0.27	4 0.32
Resuspension Rate	9 0.00	9 0.00	2 -0.50	1 -0.67
Release time of 1	5 0.03	5 0.07	7 0.05	7 0.08
Release time of 2	3 0.04	3 0.10	3 0.39	2 0.63
Release time of 3	6 -0.02	6 -0.05	8 -0.04	8 -0.07
Release time of 4	8 0.01	8 0.03	6 0.08	6 0.12
Release time of 5	7 0.01	7 0.03	9 0.00	9 0.00
Release time of 6	4 -0.03	4 -0.07	5 -0.10	5 -0.14
Building Exchange Rate	1 -0.20	1 -0.20	1 -0.62	3 -0.42
R-SQUARE	0.07	0.07	0.72	0.72

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 06:20:54 Page: 84 **
Title : Humboldt Bay sensitivity analysis_C14
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.07	3 -0.11	4 0.28	4 0.33
Resuspension Rate	9 -0.01	9 -0.01	2 -0.50	1 -0.67
Release time of 1	6 0.02	6 0.06	7 0.04	7 0.06
Release time of 2	5 -0.02	5 -0.06	8 -0.03	8 -0.04
Release time of 3	3 0.04	2 0.11	3 0.36	2 0.58
Release time of 4	8 0.01	8 0.02	6 0.07	6 0.11
Release time of 5	7 0.01	7 0.04	9 0.02	9 0.04
Release time of 6	4 -0.03	4 -0.07	5 -0.09	5 -0.14
Building Exchange Rate	1 -0.21	1 -0.21	1 -0.64	3 -0.43
R-SQUARE	0.07	0.07	0.73	0.73

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 06:20:54 Page: 85 **
Title : Humboldt Bay sensitivity analysis_C14
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.08	3 -0.12	4 0.30	4 0.35
Resuspension Rate	9 -0.01	9 -0.01	2 -0.51	2 -0.68
Release time of 1	4 0.04	4 0.09	8 0.04	8 0.05
Release time of 2	6 -0.03	6 -0.08	9 -0.04	9 -0.05
Release time of 3	8 -0.03	8 -0.07	6 -0.05	6 -0.08
Release time of 4	3 0.08	1 0.21	3 0.46	1 0.73
Release time of 5	7 0.03	7 0.08	7 0.04	7 0.06
Release time of 6	5 -0.03	5 -0.09	5 -0.07	5 -0.10
Building Exchange Rate	1 -0.20	2 -0.20	1 -0.62	3 -0.41
R-SQUARE	0.08	0.08	0.73	0.73

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 06:20:54 Page: 86 **
Title : Humboldt Bay sensitivity analysis_C14
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	2 -0.07	3 -0.10	4 0.28	4 0.33
Resuspension Rate	4 -0.03	9 -0.05	2 -0.52	1 -0.69
Release time of 1	7 0.02	6 0.06	7 0.08	7 0.11
Release time of 2	6 -0.03	4 -0.08	8 -0.05	8 -0.08
Release time of 3	9 -0.02	8 -0.05	9 -0.05	9 -0.08
Release time of 4	5 0.03	5 0.08	5 0.10	5 0.14
Release time of 5	3 0.05	2 0.13	3 0.41	2 0.64
Release time of 6	8 -0.02	7 -0.05	6 -0.09	6 -0.13
Building Exchange Rate	1 -0.20	1 -0.20	1 -0.63	3 -0.42
R-SQUARE	0.07	0.07	0.74	0.74

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/02/11 06:20:54 Page: 87 **
Title : Humboldt Bay sensitivity analysis_C14
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	2 -0.08	2 -0.12	4 0.27	4 0.32
Resuspension Rate	5 -0.03	8 -0.04	2 -0.50	1 -0.67
Release time of 1	3 0.04	3 0.10	6 0.06	6 0.09
Release time of 2	6 -0.02	5 -0.07	8 -0.03	8 -0.04
Release time of 3	8 -0.02	7 -0.05	7 -0.05	7 -0.07
Release time of 4	7 0.02	6 0.05	5 0.09	5 0.13
Release time of 5	4 0.03	4 0.08	9 0.01	9 0.02
Release time of 6	9 0.01	9 0.02	3 0.31	2 0.49
Building Exchange Rate	1 -0.22	1 -0.21	1 -0.64	3 -0.44
R-SQUARE	0.09	0.09	0.72	0.72

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Cm-243 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/06/11 21:35:09 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Cm243
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm243-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/06/11 21:35:09 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Cm243
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm243-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/06/11 21:35:09 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Cm243
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm243-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	2.69E-05	1.16E-05	7.68E-06	1.16E-05	7.68E-06	2.66E-05	9.21E-05
Maximum	1.58E-04	5.48E-05	5.18E-05	5.57E-05	3.27E-05	1.68E-04	5.16E-04
Average	3.19E-05	1.39E-05	9.23E-06	1.38E-05	9.19E-06	3.17E-05	1.10E-04
Std.Dev	1.03E-05	4.38E-06	3.47E-06	4.19E-06	2.86E-06	1.05E-05	3.45E-05
* Total *							
Minimum	2.69E-05	1.16E-05	7.68E-06	1.16E-05	7.68E-06	2.66E-05	9.21E-05
Maximum	1.58E-04	5.48E-05	5.18E-05	5.57E-05	3.27E-05	1.68E-04	5.16E-04
Average	3.19E-05	1.39E-05	9.23E-06	1.38E-05	9.19E-06	3.17E-05	1.10E-04
Std.Dev	1.03E-05	4.38E-06	3.47E-06	4.19E-06	2.86E-06	1.05E-05	3.45E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/06/11 21:35:09 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Cm243
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm243-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	2.58E-05	1.12E-05	7.29E-06	1.11E-05	7.34E-06	2.53E-05	8.80E-05
Maximum	1.53E-04	5.30E-05	5.01E-05	5.39E-05	3.05E-05	1.63E-04	4.99E-04
Average	3.08E-05	1.33E-05	8.88E-06	1.33E-05	8.84E-06	3.05E-05	1.06E-04
Std.Dev	9.86E-06	4.15E-06	3.31E-06	3.96E-06	2.69E-06	1.00E-05	3.29E-05

* Total *							
Minimum	2.58E-05	1.12E-05	7.29E-06	1.11E-05	7.34E-06	2.53E-05	8.80E-05
Maximum	1.53E-04	5.30E-05	5.01E-05	5.39E-05	3.05E-05	1.63E-04	4.99E-04
Average	3.08E-05	1.33E-05	8.88E-06	1.33E-05	8.84E-06	3.05E-05	1.06E-04
Std.Dev	9.86E-06	4.15E-06	3.31E-06	3.96E-06	2.69E-06	1.00E-05	3.29E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/06/11 21:35:09 Page: 29 **
Title : Humboldt Bay sensitivity analysis_Cm243
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm243-1.bld
Evaluation Time: 50.000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source	3	4	5	6	Total
*** 1***		2					
Minimum	2.72E-07	5.23E-08	2.13E-08	5.23E-08	2.13E-08	2.00E-07	6.19E-07
Maximum	8.80E-06	4.11E-06	2.93E-06	4.23E-06	2.60E-06	9.65E-06	3.03E-05
Average	3.86E-06	1.64E-06	1.08E-06	1.64E-06	1.07E-06	3.83E-06	1.31E-05
Std.Dev	2.46E-06	1.09E-06	7.30E-07	1.09E-06	7.25E-07	2.48E-06	8.03E-06

* Total *							
Minimum	2.72E-07	5.23E-08	2.13E-08	5.23E-08	2.13E-08	2.00E-07	6.19E-07
Maximum	8.80E-06	4.11E-06	2.93E-06	4.23E-06	2.60E-06	9.65E-06	3.03E-05
Average	3.86E-06	1.64E-06	1.08E-06	1.64E-06	1.07E-06	3.83E-06	1.31E-05
Std.Dev	2.46E-06	1.09E-06	7.30E-07	1.09E-06	7.25E-07	2.48E-06	8.03E-06

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 21:35:09 Page: 81 **
Title : Humboldt Bay sensitivity analysis_Cm243
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total at Time: 1
Coefficient =
Repetition =

Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
	Sig	Coeff	Sig	Coeff
Deposition Velocity	3	-0.07	5	-0.10
Resuspension Rate	2	0.09	4	0.13
Release time of 1	6	-0.04	6	-0.10
Release time of 2	9	-0.01	9	-0.03
Release time of 3	4	-0.06	2	-0.16
Release time of 4	8	-0.02	8	-0.06
Release time of 5	7	0.04	7	0.09
Release time of 6	5	-0.06	3	-0.14
Building Exchange Rate	1	-0.33	1	-0.30
R-SQUARE	0.24		0.24	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 21:35:09 Page: 82 **
Title : Humboldt Bay sensitivity analysis_Cm243
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1
Coefficient =
Repetition =

Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
	Sig	Coeff	Sig	Coeff
Deposition Velocity	4	-0.07	6	-0.10
Resuspension Rate	3	0.10	3	0.15
Release time of 1	2	-0.11	2	-0.26
Release time of 2	9	0.00	9	0.00
Release time of 3	5	-0.06	4	-0.15
Release time of 4	8	-0.02	8	-0.05
Release time of 5	6	0.05	5	0.14
Release time of 6	7	-0.02	7	-0.06
Building Exchange Rate	1	-0.31	1	-0.29
R-SQUARE	0.23		0.23	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 21:35:09 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Cm243
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.06	4 -0.09	3 -0.03	3 -0.01
Resuspension Rate	5 0.04	6 0.06	9 0.01	9 0.00
Release time of 1	9 -0.01	9 -0.02	4 -0.02	4 -0.01
Release time of 2	2 -0.10	2 -0.25	2 -0.71	2 -0.58
Release time of 3	4 -0.05	3 -0.12	7 0.02	7 0.01
Release time of 4	8 -0.01	8 -0.03	5 -0.02	5 -0.01
Release time of 5	6 0.03	5 0.07	6 0.02	6 0.01
Release time of 6	7 -0.02	7 -0.05	8 -0.02	8 -0.01
Building Exchange Rate	1 -0.33	1 -0.30	1 -0.97	1 -0.78
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 21:35:09 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Cm243
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	3 -0.10	3 -0.08	3 -0.04
Resuspension Rate	4 0.06	4 0.10	4 0.06	4 0.03
Release time of 1	7 -0.02	7 -0.05	9 -0.01	9 0.00
Release time of 2	9 0.00	9 0.00	8 0.01	8 0.01
Release time of 3	2 -0.12	1 -0.29	2 -0.69	2 -0.57
Release time of 4	8 -0.01	8 -0.01	5 -0.03	5 -0.02
Release time of 5	5 0.03	5 0.09	6 0.02	6 0.01
Release time of 6	6 -0.03	6 -0.08	7 -0.02	7 -0.01
Building Exchange Rate	1 -0.29	2 -0.27	1 -0.97	1 -0.79
R-SQUARE	0.19	0.19	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 21:35:09 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Cm243
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	5 -0.09	3 -0.09	3 -0.04
Resuspension Rate	4 0.06	6 0.09	4 0.07	4 0.03
Release time of 1	8 -0.01	8 -0.03	7 -0.03	7 -0.02
Release time of 2	9 0.00	9 -0.01	6 0.04	6 0.02
Release time of 3	5 -0.04	3 -0.11	5 0.04	5 0.03
Release time of 4	2 -0.12	2 -0.30	2 -0.71	2 -0.59
Release time of 5	6 0.04	4 0.10	9 -0.02	9 -0.01
Release time of 6	7 -0.03	7 -0.07	8 -0.02	8 -0.01
Building Exchange Rate	1 -0.34	1 -0.31	1 -0.97	1 -0.78
R-SQUARE	0.25	0.25	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 21:35:09 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Cm243
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity	4	-0.08		5	-0.12	4	-0.05	4	-0.02
Resuspension Rate	2	0.09		4	0.13	5	0.04	6	0.02
Release time of 1	7	0.01		8	0.02	8	0.01	8	0.00
Release time of 2	8	-0.01		7	-0.02	7	0.02	7	0.01
Release time of 3	5	-0.06		3	-0.15	9	0.01	9	0.00
Release time of 4	9	0.00		9	-0.01	3	-0.06	3	-0.03
Release time of 5	3	-0.09		2	-0.21	2	-0.69	2	-0.55
Release time of 6	6	-0.02		6	-0.04	6	-0.04	5	-0.02
Building Exchange Rate	1	-0.33		1	-0.30	1	-0.97	1	-0.79
R-SQUARE			0.26		0.26		0.96		0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 21:35:09 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Cm243
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity	4	-0.08		6	-0.11	9	0.00	9	0.00
Resuspension Rate	3	0.11		3	0.15	6	-0.01	6	-0.01
Release time of 1	7	-0.01		7	-0.04	4	-0.03	4	-0.02
Release time of 2	9	0.01		9	0.01	8	0.01	8	0.00
Release time of 3	5	-0.06		4	-0.15	5	0.03	5	0.02
Release time of 4	8	-0.01		8	-0.02	3	-0.05	3	-0.03
Release time of 5	6	0.05		5	0.12	7	0.01	7	0.00
Release time of 6	2	-0.12		1	-0.30	2	-0.69	2	-0.56
Building Exchange Rate	1	-0.31		2	-0.29	1	-0.97	1	-0.79
R-SQUARE			0.23		0.23		0.96		0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Cm-244 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/07/11 07:43:58 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Cm244
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm244-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/07/11 07:43:58 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Cm244
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm244-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/07/11 07:43:58 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Cm244
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm244-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	2.07E-05	9.13E-06	6.08E-06	9.13E-06	6.08E-06	2.07E-05	7.18E-05
Maximum	1.26E-04	4.38E-05	4.14E-05	4.45E-05	2.61E-05	1.34E-04	4.11E-04
Average	2.47E-05	1.09E-05	7.31E-06	1.09E-05	7.28E-06	2.47E-05	8.59E-05
Std.Dev	8.27E-06	3.50E-06	2.78E-06	3.34E-06	2.28E-06	8.41E-06	2.76E-05
* Total *							
Minimum	2.07E-05	9.13E-06	6.08E-06	9.13E-06	6.08E-06	2.07E-05	7.18E-05
Maximum	1.26E-04	4.38E-05	4.14E-05	4.45E-05	2.61E-05	1.34E-04	4.11E-04
Average	2.47E-05	1.09E-05	7.31E-06	1.09E-05	7.28E-06	2.47E-05	8.59E-05
Std.Dev	8.27E-06	3.50E-06	2.78E-06	3.34E-06	2.28E-06	8.41E-06	2.76E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/07/11 07:43:58 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Cm244
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm244-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	1.96E-05	8.66E-06	5.69E-06	8.58E-06	5.72E-06	1.94E-05	6.76E-05
Maximum	1.20E-04	4.17E-05	3.95E-05	4.24E-05	2.40E-05	1.28E-04	3.92E-04
Average	2.35E-05	1.04E-05	6.94E-06	1.03E-05	6.91E-06	2.35E-05	8.15E-05
Std.Dev	7.78E-06	3.27E-06	2.61E-06	3.12E-06	2.12E-06	7.92E-06	2.59E-05

* Total *							
Minimum	1.96E-05	8.66E-06	5.69E-06	8.58E-06	5.72E-06	1.94E-05	6.76E-05
Maximum	1.20E-04	4.17E-05	3.95E-05	4.24E-05	2.40E-05	1.28E-04	3.92E-04
Average	2.35E-05	1.04E-05	6.94E-06	1.03E-05	6.91E-06	2.35E-05	8.15E-05
Std.Dev	7.78E-06	3.27E-06	2.61E-06	3.12E-06	2.12E-06	7.92E-06	2.59E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/07/11 07:43:58 Page: 29 **
Title : Humboldt Bay sensitivity analysis_Cm244
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm244-1.bld
Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	4.47E-10	1.65E-10	5.89E-11	1.65E-10	5.91E-11	4.47E-10	1.34E-09
Maximum	3.46E-06	1.65E-06	1.19E-06	1.70E-06	1.05E-06	3.85E-06	1.21E-05
Average	1.46E-06	6.46E-07	4.31E-07	6.48E-07	4.27E-07	1.48E-06	5.09E-06
Std.Dev	9.97E-07	4.42E-07	2.97E-07	4.41E-07	2.95E-07	1.01E-06	3.26E-06
* Total *							
Minimum	4.47E-10	1.65E-10	5.89E-11	1.65E-10	5.91E-11	4.47E-10	1.34E-09
Maximum	3.46E-06	1.65E-06	1.19E-06	1.70E-06	1.05E-06	3.85E-06	1.21E-05
Average	1.46E-06	6.46E-07	4.31E-07	6.48E-07	4.27E-07	1.48E-06	5.09E-06
Std.Dev	9.97E-07	4.42E-07	2.97E-07	4.41E-07	2.95E-07	1.01E-06	3.26E-06

** RESRAD-BUILD Regression and Correlation output 3.50 12/07/11 07:43:58 Page: 81 **
Title : Humboldt Bay sensitivity analysis_Cm244
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	5 -0.10	8 -0.06	8 -0.03
Resuspension Rate	2 0.09	4 0.13	9 0.04	9 0.02
Release time of 1	6 -0.04	6 -0.10	2 -0.31	2 -0.18
Release time of 2	9 -0.01	9 -0.03	5 -0.13	5 -0.07
Release time of 3	4 -0.06	2 -0.16	7 -0.06	7 -0.04
Release time of 4	8 -0.02	8 -0.06	4 -0.17	4 -0.09
Release time of 5	7 0.04	7 0.09	6 -0.07	6 -0.04
Release time of 6	5 -0.06	3 -0.14	3 -0.29	3 -0.18
Building Exchange Rate	1 -0.33	1 -0.30	1 -0.97	1 -0.79
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/07/11 07:43:58 Page: 82 **
Title : Humboldt Bay sensitivity analysis_Cm244
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.07	6 -0.10	6 -0.03	6 -0.01
Resuspension Rate	3 0.11	3 0.15	9 0.02	9 0.01
Release time of 1	2 -0.11	2 -0.26	2 -0.71	2 -0.59
Release time of 2	9 0.00	9 0.00	7 -0.02	7 -0.01
Release time of 3	5 -0.06	4 -0.15	3 0.04	3 0.03
Release time of 4	8 -0.02	8 -0.05	4 -0.04	4 -0.02
Release time of 5	6 0.06	5 0.14	5 0.03	5 0.02
Release time of 6	7 -0.02	7 -0.06	8 -0.02	8 -0.01
Building Exchange Rate	1 -0.31	1 -0.28	1 -0.96	1 -0.78
R-SQUARE	0.23	0.23	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/07/11 07:43:58 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Cm244
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.06	4 -0.09	3 -0.05	3 -0.02
Resuspension Rate	5 0.04	6 0.06	5 0.03	7 0.01
Release time of 1	9 -0.01	9 -0.02	6 -0.02	6 -0.01
Release time of 2	2 -0.10	2 -0.25	2 -0.71	2 -0.58
Release time of 3	4 -0.05	3 -0.12	3 0.02	9 0.01
Release time of 4	8 -0.01	8 -0.03	8 -0.02	8 -0.01
Release time of 5	6 0.03	5 0.07	4 0.03	4 0.02
Release time of 6	7 -0.02	7 -0.05	7 -0.02	5 -0.01
Building Exchange Rate	1 -0.33	1 -0.30	1 -0.97	1 -0.78
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/07/11 07:43:58 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Cm244
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	3 -0.10	3 -0.09	3 -0.04
Resuspension Rate	4 0.07	4 0.10	4 0.07	4 0.03
Release time of 1	7 -0.02	7 -0.05	9 0.00	9 0.00
Release time of 2	9 0.00	9 0.00	8 0.01	8 0.01
Release time of 3	2 -0.11	1 -0.29	2 -0.69	2 -0.57
Release time of 4	8 -0.01	8 -0.01	5 -0.03	5 -0.02
Release time of 5	5 0.03	5 0.09	7 0.02	7 0.01
Release time of 6	6 -0.03	6 -0.08	6 -0.03	6 -0.02
Building Exchange Rate	1 -0.29	2 -0.27	1 -0.97	1 -0.78
R-SQUARE	0.19	0.19	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/07/11 07:43:58 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Cm244
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	5 -0.09	3 -0.10	3 -0.05
Resuspension Rate	4 0.06	6 0.09	4 0.08	4 0.04
Release time of 1	8 -0.01	8 -0.03	8 -0.03	8 -0.02
Release time of 2	9 0.00	9 -0.01	6 0.04	6 0.02
Release time of 3	5 -0.04	3 -0.11	5 0.04	5 0.02
Release time of 4	2 -0.12	2 -0.30	2 -0.71	2 -0.59
Release time of 5	6 0.04	4 0.10	9 -0.02	9 -0.01
Release time of 6	7 -0.03	7 -0.07	7 -0.03	7 -0.02
Building Exchange Rate	1 -0.34	1 -0.31	1 -0.97	1 -0.78
R-SQUARE	0.25	0.25	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/07/11 07:43:58 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Cm244
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity	4	-0.08		5	-0.12	3	-0.07	4	-0.03
Resuspension Rate	2	0.09		4	0.13	5	0.06	5	0.03
Release time of 1	8	0.01		8	0.02	8	0.01	8	0.00
Release time of 2	7	-0.01		7	-0.02	7	0.02	7	0.01
Release time of 3	5	-0.06		3	-0.15	9	0.01	9	0.00
Release time of 4	9	0.00		9	-0.01	4	-0.06	3	-0.03
Release time of 5	3	-0.09		2	-0.21	2	-0.69	2	-0.55
Release time of 6	6	-0.02		6	-0.04	6	-0.04	6	-0.02
Building Exchange Rate	1	-0.33		1	-0.30	1	-0.97	1	-0.79
R-SQUARE			0.26		0.26		0.96		0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/07/11 07:43:58 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Cm244
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity	4	-0.08		6	-0.11	6	-0.02	6	-0.01
Resuspension Rate	3	0.11		3	0.15	9	0.01	9	0.00
Release time of 1	7	-0.01		7	-0.04	4	-0.03	4	-0.02
Release time of 2	9	0.01		9	0.01	7	0.01	7	0.00
Release time of 3	5	-0.06		4	-0.15	5	0.03	5	0.02
Release time of 4	8	-0.01		8	-0.02	3	-0.05	3	-0.03
Release time of 5	6	0.05		5	0.12	8	0.01	8	0.00
Release time of 6	2	-0.12		1	-0.30	2	-0.69	2	-0.56
Building Exchange Rate	1	-0.31		2	-0.29	1	-0.97	1	-0.79
R-SQUARE			0.23		0.23		0.96		0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Cm-245 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/09/11 08:06:59 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Cm245
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm245-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/09/11 08:06:59 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Cm245
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm245-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/09/11 08:06:59 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Cm245
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm245-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	6.50E-05	2.22E-05	1.35E-05	2.22E-05	1.35E-05	5.81E-05	1.95E-04
Maximum	2.62E-04	8.71E-05	7.98E-05	8.85E-05	5.10E-05	2.71E-04	8.31E-04
Average	7.28E-05	2.57E-05	1.59E-05	2.57E-05	1.58E-05	6.60E-05	2.22E-04
Std.Dev	1.59E-05	6.77E-06	5.33E-06	6.45E-06	4.46E-06	1.60E-05	5.30E-05
* Total *							
Minimum	6.50E-05	2.22E-05	1.35E-05	2.22E-05	1.35E-05	5.81E-05	1.95E-04
Maximum	2.62E-04	8.71E-05	7.98E-05	8.85E-05	5.10E-05	2.71E-04	8.31E-04
Average	7.28E-05	2.57E-05	1.59E-05	2.57E-05	1.58E-05	6.60E-05	2.22E-04
Std.Dev	1.59E-05	6.77E-06	5.33E-06	6.45E-06	4.46E-06	1.60E-05	5.30E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/09/11 08:06:59 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Cm245
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm245-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	6.43E-05	2.20E-05	1.32E-05	2.18E-05	1.33E-05	5.70E-05	1.91E-04
Maximum	2.60E-04	8.64E-05	7.91E-05	8.78E-05	4.95E-05	2.69E-04	8.24E-04
Average	7.21E-05	2.54E-05	1.57E-05	2.54E-05	1.57E-05	6.53E-05	2.20E-04
Std.Dev	1.55E-05	6.57E-06	5.21E-06	6.26E-06	4.31E-06	1.57E-05	5.17E-05

* Total *							
Minimum	6.43E-05	2.20E-05	1.32E-05	2.18E-05	1.33E-05	5.70E-05	1.91E-04
Maximum	2.60E-04	8.64E-05	7.91E-05	8.78E-05	4.95E-05	2.69E-04	8.24E-04
Average	7.21E-05	2.54E-05	1.57E-05	2.54E-05	1.57E-05	6.53E-05	2.20E-04
Std.Dev	1.55E-05	6.57E-06	5.21E-06	6.26E-06	4.31E-06	1.57E-05	5.17E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/09/11 08:06:59 Page: 29 **
 Title : Humboldt Bay sensitivity analysis_Cm245
 Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm245-1.bld
 Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	2.33E-05	4.49E-06	1.82E-06	4.49E-06	1.83E-06	1.72E-05	5.31E-05
Maximum	7.10E-05	2.64E-05	1.74E-05	2.70E-05	1.58E-05	6.83E-05	2.17E-04
Average	4.36E-05	1.32E-05	7.60E-06	1.33E-05	7.56E-06	3.75E-05	1.23E-04
Std.Dev	1.39E-05	5.99E-06	3.99E-06	5.98E-06	3.97E-06	1.39E-05	4.47E-05
* Total *							
Minimum	2.33E-05	4.49E-06	1.82E-06	4.49E-06	1.83E-06	1.72E-05	5.31E-05
Maximum	7.10E-05	2.64E-05	1.74E-05	2.70E-05	1.58E-05	6.83E-05	2.17E-04
Average	4.36E-05	1.32E-05	7.60E-06	1.33E-05	7.56E-06	3.75E-05	1.23E-04
Std.Dev	1.39E-05	5.99E-06	3.99E-06	5.98E-06	3.97E-06	1.39E-05	4.47E-05

** RESRAD-BUILD Regression and Correlation output 3.50 12/09/11 08:06:59 Page: 81 **
 Title : Humboldt Bay sensitivity analysis_Cm245
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total at Time: 1
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.08	5 -0.11	9 0.03	9 0.01
Resuspension Rate	2 0.09	4 0.13	7 -0.07	7 -0.03
Release time of 1	6 -0.04	6 -0.10	3 -0.30	3 -0.18
Release time of 2	9 -0.01	9 -0.03	5 -0.12	5 -0.07
Release time of 3	4 -0.07	2 -0.16	8 -0.03	8 -0.03
Release time of 4	8 -0.02	8 -0.06	4 -0.16	4 -0.09
Release time of 5	7 -0.04	7 0.09	6 -0.08	6 -0.05
Release time of 6	5 -0.06	3 -0.14	2 -0.30	2 -0.18
Building Exchange Rate	1 -0.33	1 -0.31	1 -0.97	1 -0.79
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/09/11 08:06:59 Page: 82 **
 Title : Humboldt Bay sensitivity analysis_Cm245
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.07	6 -0.10	4 0.05	6 0.02
Resuspension Rate	3 0.10	4 0.15	3 -0.10	3 -0.05
Release time of 1	2 -0.11	2 -0.26	2 -0.71	2 -0.59
Release time of 2	9 0.00	9 0.00	9 -0.01	9 0.00
Release time of 3	5 -0.06	3 -0.15	5 0.05	4 0.03
Release time of 4	8 -0.02	8 -0.04	6 -0.04	5 -0.02
Release time of 5	6 0.05	5 0.14	8 0.03	8 0.02
Release time of 6	7 -0.02	7 -0.06	7 -0.04	7 -0.02
Building Exchange Rate	1 -0.31	1 -0.29	1 -0.96	1 -0.78
R-SQUARE	0.23	0.23	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/09/11 08:06:59 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Cm245
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	4 -0.09	6 0.03	7 0.01
Resuspension Rate	5 0.04	6 0.06	3 -0.08	3 -0.04
Release time of 1	9 -0.01	9 -0.02	8 -0.02	8 -0.01
Release time of 2	2 -0.10	2 -0.25	2 -0.70	2 -0.58
Release time of 3	4 -0.05	3 -0.12	4 0.04	4 0.02
Release time of 4	8 -0.01	8 -0.03	5 -0.03	5 -0.02
Release time of 5	6 0.03	5 0.06	9 0.02	9 0.01
Release time of 6	7 -0.02	7 -0.05	7 -0.03	6 -0.02
Building Exchange Rate	1 -0.33	1 -0.31	1 -0.97	1 -0.78
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/09/11 08:06:59 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Cm245
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	3 -0.10	8 -0.01	8 0.00
Resuspension Rate	4 0.06	4 0.09	3 -0.05	3 -0.02
Release time of 1	7 -0.02	7 -0.05	9 -0.01	9 0.00
Release time of 2	9 0.00	9 0.00	5 0.02	6 0.01
Release time of 3	2 -0.12	1 -0.30	2 -0.69	2 -0.57
Release time of 4	8 -0.01	8 -0.01	4 -0.02	4 -0.01
Release time of 5	5 0.03	5 0.09	7 0.01	7 0.01
Release time of 6	6 -0.03	6 -0.08	6 -0.02	5 -0.01
Building Exchange Rate	1 -0.29	2 -0.27	1 -0.97	1 -0.79
R-SQUARE	0.20	0.20	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/09/11 08:06:59 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Cm245
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	5 -0.10	9 -0.01	9 0.00
Resuspension Rate	4 0.06	6 0.09	4 -0.04	6 -0.02
Release time of 1	8 -0.01	8 -0.02	8 -0.02	8 -0.01
Release time of 2	9 -0.01	9 -0.01	6 0.04	5 0.02
Release time of 3	5 -0.05	3 -0.11	3 0.06	3 0.04
Release time of 4	2 -0.12	2 -0.29	2 -0.71	2 -0.59
Release time of 5	6 0.04	4 0.10	7 -0.03	7 -0.02
Release time of 6	7 -0.03	7 -0.07	5 -0.04	4 -0.03
Building Exchange Rate	1 -0.34	1 -0.32	1 -0.97	1 -0.79
R-SQUARE	0.26	0.26	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/09/11 08:06:59 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Cm245
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
	Sig	Coeff	Sig	Coeff
Deposition Velocity	2	-0.09	4	-0.12
Resuspension Rate	4	0.08	5	0.12
Release time of 1	8	0.01	8	0.02
Release time of 2	7	-0.01	7	-0.02
Release time of 3	5	-0.06	3	-0.15
Release time of 4	9	0.00	9	-0.01
Release time of 5	3	-0.09	2	-0.21
Release time of 6	6	-0.02	6	-0.04
Building Exchange Rate	1	-0.33	1	-0.30
R-SQUARE	0.25		0.25	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/09/11 08:06:59 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Cm245
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
	Sig	Coeff	Sig	Coeff
Deposition Velocity	4	-0.08	6	-0.11
Resuspension Rate	3	0.10	4	0.15
Release time of 1	7	-0.01	7	-0.03
Release time of 2	9	0.01	9	0.01
Release time of 3	5	-0.06	3	-0.15
Release time of 4	8	-0.01	8	-0.02
Release time of 5	6	0.05	5	0.12
Release time of 6	2	-0.12	1	-0.31
Building Exchange Rate	1	-0.32	2	-0.29
R-SQUARE	0.23		0.23	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Cm-246 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/08/11 22:31:56 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Cm246
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm246-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/08/11 22:31:56 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Cm246
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm246-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/08/11 22:31:56 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Cm246
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm246-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	4.63E-05	1.85E-05	1.19E-05	1.85E-05	1.19E-05	4.43E-05	1.51E-04
Maximum	2.41E-04	8.28E-05	7.76E-05	8.41E-05	4.91E-05	2.55E-04	7.82E-04
Average	5.40E-05	2.20E-05	1.43E-05	2.19E-05	1.43E-05	5.20E-05	1.79E-04
Std.Dev	1.57E-05	6.70E-06	5.28E-06	6.38E-06	4.42E-06	1.59E-05	5.25E-05
* Total *							
Minimum	4.63E-05	1.85E-05	1.19E-05	1.85E-05	1.19E-05	4.43E-05	1.51E-04
Maximum	2.41E-04	8.28E-05	7.76E-05	8.41E-05	4.91E-05	2.55E-04	7.82E-04
Average	5.40E-05	2.20E-05	1.43E-05	2.19E-05	1.43E-05	5.20E-05	1.79E-04
Std.Dev	1.57E-05	6.70E-06	5.28E-06	6.38E-06	4.42E-06	1.59E-05	5.25E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/08/11 22:31:56 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Cm246
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm246-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	4.56E-05	1.83E-05	1.16E-05	1.81E-05	1.17E-05	4.32E-05	1.48E-04
Maximum	2.39E-04	8.21E-05	7.68E-05	8.34E-05	4.75E-05	2.53E-04	7.75E-04
Average	5.34E-05	2.17E-05	1.41E-05	2.16E-05	1.41E-05	5.14E-05	1.76E-04
Std.Dev	1.54E-05	6.51E-06	5.16E-06	6.20E-06	4.27E-06	1.55E-05	5.12E-05

* Total *							
Minimum	4.56E-05	1.83E-05	1.16E-05	1.81E-05	1.17E-05	4.32E-05	1.48E-04
Maximum	2.39E-04	8.21E-05	7.68E-05	8.34E-05	4.75E-05	2.53E-04	7.75E-04
Average	5.34E-05	2.17E-05	1.41E-05	2.16E-05	1.41E-05	5.14E-05	1.76E-04
Std.Dev	1.54E-05	6.51E-06	5.16E-06	6.20E-06	4.27E-06	1.55E-05	5.12E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/08/11 22:31:56 Page: 29 **
Title : Humboldt Bay sensitivity analysis_Cm246
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cm246-1.bld
Evaluation Time: 50.000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source	3	4	5	6	Total
*** 1***		2					
Minimum	6.88E-06	1.32E-06	5.37E-07	1.32E-06	5.39E-07	5.06E-06	1.57E-05
Maximum	4.99E-05	2.15E-05	1.50E-05	2.21E-05	1.34E-05	5.22E-05	1.65E-04
Average	2.51E-05	9.30E-06	5.85E-06	9.33E-06	5.80E-06	2.34E-05	7.88E-05
Std.Dev	1.25E-05	5.46E-06	3.66E-06	5.46E-06	3.64E-06	1.25E-05	4.05E-05
* Total *							
Minimum	6.88E-06	1.32E-06	5.37E-07	1.32E-06	5.39E-07	5.06E-06	1.57E-05
Maximum	4.99E-05	2.15E-05	1.50E-05	2.21E-05	1.34E-05	5.22E-05	1.65E-04
Average	2.51E-05	9.30E-06	5.85E-06	9.33E-06	5.80E-06	2.34E-05	7.88E-05
Std.Dev	1.25E-05	5.46E-06	3.66E-06	5.46E-06	3.64E-06	1.25E-05	4.05E-05

** RESRAD-BUILD Regression and Correlation output 3.50 12/08/11 22:31:56 Page: 81 **
Title : Humboldt Bay sensitivity analysis_Cm246
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.08	5 -0.11	9 0.03	9 0.02
Resuspension Rate	2 0.09	4 0.13	7 -0.07	7 -0.03
Release time of 1	6 -0.04	6 -0.10	3 -0.30	3 -0.18
Release time of 2	9 -0.01	9 -0.03	5 -0.12	5 -0.07
Release time of 3	4 -0.07	2 -0.16	8 -0.05	8 -0.03
Release time of 4	8 -0.02	8 -0.06	4 -0.16	4 -0.09
Release time of 5	7 0.03	7 0.09	6 -0.09	6 -0.05
Release time of 6	5 -0.06	3 -0.14	2 -0.30	2 -0.18
Building Exchange Rate	1 -0.33	1 -0.31	1 -0.97	1 -0.79
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/08/11 22:31:56 Page: 82 **
Title : Humboldt Bay sensitivity analysis_Cm246
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.07	6 -0.10	5 0.04	7 0.02
Resuspension Rate	3 0.10	4 0.15	3 -0.09	3 -0.04
Release time of 1	2 -0.11	2 -0.26	2 -0.71	2 -0.59
Release time of 2	9 0.00	9 0.00	9 -0.01	9 0.00
Release time of 3	5 -0.06	3 -0.15	4 0.05	4 0.03
Release time of 4	8 -0.02	8 -0.04	6 -0.04	5 -0.02
Release time of 5	6 0.05	5 0.14	8 0.03	8 0.02
Release time of 6	7 -0.02	7 -0.06	7 -0.03	6 -0.02
Building Exchange Rate	1 -0.31	1 -0.29	1 -0.96	1 -0.78
R-SQUARE	0.23	0.23	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/08/11 22:31:56 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Cm246
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	4 -0.09	6 0.03	7 0.01
Resuspension Rate	5 0.04	6 0.06	3 -0.08	3 -0.04
Release time of 1	9 -0.01	9 -0.02	8 -0.02	8 -0.01
Release time of 2	2 -0.10	2 -0.25	2 -0.70	2 -0.58
Release time of 3	4 -0.05	3 -0.12	4 0.04	4 0.02
Release time of 4	8 -0.01	8 -0.03	5 -0.03	5 -0.02
Release time of 5	6 0.03	5 0.06	9 0.02	9 0.01
Release time of 6	7 -0.02	7 -0.05	7 -0.03	6 -0.02
Building Exchange Rate	1 -0.33	1 -0.31	1 -0.97	1 -0.78
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/08/11 22:31:56 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Cm246
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	3 -0.10	8 -0.01	8 0.00
Resuspension Rate	4 0.06	4 0.09	3 -0.04	3 -0.02
Release time of 1	7 -0.02	7 -0.05	9 0.00	9 0.00
Release time of 2	9 0.00	9 0.00	5 0.02	5 0.01
Release time of 3	2 -0.12	1 -0.30	2 -0.69	2 -0.57
Release time of 4	8 -0.01	8 -0.01	6 -0.02	6 -0.01
Release time of 5	5 0.03	5 0.09	7 0.01	7 0.01
Release time of 6	6 -0.03	6 -0.08	4 -0.02	4 -0.01
Building Exchange Rate	1 -0.29	2 -0.27	1 -0.97	1 -0.79
R-SQUARE	0.20	0.20	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/08/11 22:31:56 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Cm246
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	5 -0.10	9 -0.01	9 0.00
Resuspension Rate	4 0.06	6 0.09	6 -0.04	7 -0.02
Release time of 1	8 -0.01	8 -0.02	8 -0.02	8 -0.01
Release time of 2	9 -0.01	9 -0.01	4 0.04	5 0.02
Release time of 3	5 -0.05	3 -0.11	3 0.06	3 0.04
Release time of 4	2 -0.12	2 -0.29	2 -0.71	2 -0.59
Release time of 5	6 0.04	4 0.10	7 -0.03	6 -0.02
Release time of 6	7 -0.03	7 -0.07	5 -0.04	4 -0.02
Building Exchange Rate	1 -0.34	1 -0.32	1 -0.97	1 -0.79
R-SQUARE	0.26	0.26	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/08/11 22:31:56 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Cm246
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient =				
Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	2	-0.09	4	-0.12
Resuspension Rate	4	0.08	5	0.12
Release time of 1	8	0.01	8	0.02
Release time of 2	7	-0.01	7	-0.02
Release time of 3	5	-0.06	3	-0.15
Release time of 4	9	0.00	9	-0.01
Release time of 5	3	-0.09	2	-0.21
Release time of 6	6	-0.02	6	-0.04
Building Exchange Rate	1	-0.33	1	-0.30
R-SQUARE	0.25	0.25	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/08/11 22:31:56 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Cm246
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient =				
Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	4	-0.08	6	-0.11
Resuspension Rate	3	0.10	4	0.15
Release time of 1	7	-0.01	7	-0.03
Release time of 2	9	0.01	9	0.01
Release time of 3	5	-0.06	3	-0.15
Release time of 4	8	-0.01	8	-0.02
Release time of 5	6	0.05	5	0.12
Release time of 6	2	-0.12	1	-0.31
Building Exchange Rate	1	-0.32	2	-0.29
R-SQUARE	0.23	0.23	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Co-60 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/05/11 08:13:39 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Co60
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Co60-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/05/11 08:13:39 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Co60
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Co60-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/05/11 08:13:39 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Co60
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Co60-1.bld
Evaluation Time: 0.0000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	1.76E-05	3.48E-06	1.44E-06	3.48E-06	1.45E-06	1.31E-05	4.06E-05
Maximum	1.78E-05	3.52E-06	1.47E-06	3.52E-06	1.46E-06	1.32E-05	4.10E-05
Average	1.78E-05	3.49E-06	1.45E-06	3.49E-06	1.45E-06	1.32E-05	4.09E-05
Std.Dev	1.54E-08	3.11E-09	1.96E-09	3.07E-09	1.46E-09	1.10E-08	3.28E-08
* Total *							
Minimum	1.76E-05	3.48E-06	1.44E-06	3.48E-06	1.45E-06	1.31E-05	4.06E-05
Maximum	1.78E-05	3.52E-06	1.47E-06	3.52E-06	1.46E-06	1.32E-05	4.10E-05
Average	1.78E-05	3.49E-06	1.45E-06	3.49E-06	1.45E-06	1.32E-05	4.09E-05
Std.Dev	1.54E-08	3.11E-09	1.96E-09	3.07E-09	1.46E-09	1.10E-08	3.28E-08

** RESRAD-BUILD Probabilistic Output 3.50 12/05/11 08:13:39 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Co60
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Co60-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	1.51E-05	2.98E-06	1.23E-06	2.98E-06	1.24E-06	1.12E-05	3.51E-05
Maximum	1.56E-05	3.07E-06	1.28E-06	3.07E-06	1.28E-06	1.15E-05	3.58E-05
Average	1.56E-05	3.06E-06	1.27E-06	3.06E-06	1.27E-06	1.15E-05	3.58E-05
Std.Dev	4.52E-08	9.22E-09	4.01E-09	9.12E-09	4.00E-09	3.19E-08	9.61E-08

* Total *							
Minimum	1.51E-05	2.98E-06	1.23E-06	2.98E-06	1.24E-06	1.12E-05	3.51E-05
Maximum	1.56E-05	3.07E-06	1.28E-06	3.07E-06	1.28E-06	1.15E-05	3.58E-05
Average	1.56E-05	3.06E-06	1.27E-06	3.06E-06	1.27E-06	1.15E-05	3.58E-05
Std.Dev	4.52E-08	9.22E-09	4.01E-09	9.12E-09	4.00E-09	3.19E-08	9.61E-08

Title : Humboldt Bay sensitivity analysis_Co60
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Co60-1.bld
Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source	2	3	4	5	6	Total
*** 1 ***								
Minimum	2.20E-08	4.24E-09	1.72E-09	4.24E-09	1.72E-09	1.62E-08	5.01E-08	
Maximum	2.43E-08	4.75E-09	1.96E-09	4.75E-09	1.97E-09	1.79E-08	5.56E-08	
Average	2.31E-08	4.48E-09	1.83E-09	4.48E-09	1.84E-09	1.70E-08	5.28E-08	
Std.Dev	8.10E-10	1.82E-10	8.61E-11	1.82E-10	8.63E-11	6.24E-10	1.87E-09	

* Total *							
Minimum	2.20E-08	4.24E-09	1.72E-09	4.24E-09	1.72E-09	1.62E-08	5.01E-08
Maximum	2.43E-08	4.75E-09	1.96E-09	4.75E-09	1.97E-09	1.79E-08	5.56E-08
Average	2.31E-08	4.48E-09	1.83E-09	4.48E-09	1.84E-09	1.70E-08	5.28E-08
Std.Dev	8.10E-10	1.82E-10	8.61E-11	1.82E-10	8.63E-11	6.24E-10	1.87E-09

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 08:13:39 Page: 81 **
Title : Humboldt Bay sensitivity analysis_Co60
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	7	0.03	8	0.03
Resuspension Rate	6	-0.04	6	-0.05
Release time of 1	2	0.11	1	0.25
Release time of 2	8	0.02	7	0.05
Release time of 3	9	-0.01	9	-0.03
Release time of 4	4	0.04	4	0.10
Release time of 5	3	0.05	3	0.11
Release time of 6	5	0.04	5	0.10
Building Exchange Rate	1	-0.26	2	-0.22
R-SQUARE		0.35		0.35

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 08:13:39 Page: 82 **
Title : Humboldt Bay sensitivity analysis_Co60
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	3	0.05	3	0.07
Resuspension Rate	4	-0.04	4	-0.06
Release time of 1	1	0.22	1	0.50
Release time of 2	6	0.02	6	0.04
Release time of 3	8	0.01	8	0.02
Release time of 4	7	-0.01	7	-0.02
Release time of 5	5	0.03	5	0.06
Release time of 6	9	0.00	9	-0.01
Building Exchange Rate	2	-0.13	2	-0.11
R-SQUARE		0.36		0.36

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 08:13:39 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Co60
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	8 -0.01	8 -0.01	4 0.08	4 0.08
Resuspension Rate	5 0.03	5 0.04	3 -0.10	3 -0.11
Release time of 1	6 0.01	6 0.03	8 0.01	8 0.01
Release time of 2	2 0.15	1 0.37	2 0.41	1 0.61
Release time of 3	4 -0.04	4 -0.09	7 -0.05	5 -0.06
Release time of 4	9 0.00	9 0.01	5 0.05	7 0.06
Release time of 5	3 0.06	3 0.14	6 0.05	6 0.06
Release time of 6	7 -0.01	7 -0.02	9 0.00	9 0.01
Building Exchange Rate	1 -0.31	2 -0.28	1 -0.73	2 -0.53
R-SQUARE	0.28	0.28	0.76	0.76

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 08:13:39 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Co60
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	5 -0.02	7 -0.03	3 0.07	4 0.10
Resuspension Rate	3 0.05	4 0.07	5 -0.06	5 -0.08
Release time of 1	6 -0.02	5 -0.04	7 -0.02	7 -0.03
Release time of 2	8 -0.01	8 -0.03	4 -0.07	3 -0.11
Release time of 3	4 0.04	3 0.10	2 0.28	2 0.51
Release time of 4	9 0.00	9 0.00	9 0.01	9 0.01
Release time of 5	2 0.06	2 0.15	8 0.02	8 0.03
Release time of 6	7 -0.01	6 -0.04	6 0.04	6 0.07
Building Exchange Rate	1 -0.32	1 -0.32	1 -0.71	1 -0.62
R-SQUARE	0.13	0.13	0.62	0.62

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 08:13:39 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Co60
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	9 0.00	9 -0.01	4 0.13	4 0.13
Resuspension Rate	7 0.02	8 0.02	3 -0.14	3 -0.15
Release time of 1	5 0.03	5 0.06	7 0.03	7 0.04
Release time of 2	6 -0.02	6 -0.04	6 -0.08	6 -0.11
Release time of 3	4 -0.03	4 -0.08	8 -0.02	8 -0.03
Release time of 4	2 0.16	1 0.38	2 0.46	1 0.67
Release time of 5	3 0.07	3 0.16	5 0.09	5 0.13
Release time of 6	8 -0.01	7 -0.03	9 -0.01	9 -0.02
Building Exchange Rate	1 -0.31	2 -0.28	1 -0.76	2 -0.55
R-SQUARE	0.28	0.28	0.78	0.78

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 08:13:39 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Co60
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	6 -0.01	7 -0.01	4 0.11	5 0.14
Resuspension Rate	9 0.00	9 0.00	3 -0.13	3 -0.17
Release time of 1	4 0.02	4 0.04	9 0.02	9 0.04
Release time of 2	7 -0.01	6 -0.01	5 -0.09	4 -0.15
Release time of 3	3 -0.04	3 -0.11	7 -0.03	7 -0.05
Release time of 4	8 0.00	8 0.01	8 0.03	8 0.04
Release time of 5	2 0.15	1 0.38	2 0.35	1 0.60
Release time of 6	5 -0.01	5 -0.02	6 0.04	6 0.07
Building Exchange Rate	1 -0.39	2 -0.38	1 -0.72	2 -0.59
R-SQUARE	0.23	0.23	0.67	0.67

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 08:13:39 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Co60
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	7 -0.01	7 -0.02	4 0.10	5 0.12
Resuspension Rate	8 0.00	8 0.00	3 -0.13	3 -0.15
Release time of 1	5 0.03	5 0.06	6 0.08	6 0.11
Release time of 2	9 0.00	9 0.00	8 -0.04	8 -0.06
Release time of 3	4 -0.04	4 -0.08	5 -0.09	4 -0.13
Release time of 4	6 0.02	6 0.05	7 0.05	7 0.06
Release time of 5	3 0.04	3 0.08	9 0.03	9 0.05
Release time of 6	2 0.21	1 0.47	2 0.45	1 0.73
Building Exchange Rate	1 -0.25	2 -0.20	1 -0.59	2 -0.37
R-SQUARE	0.39	0.39	0.73	0.73

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Cs-137 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 13:47:16 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Cs137
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cs137-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 13:47:16 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Cs137
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cs137-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 13:47:16 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Cs137
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cs137-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	4.84E-06	1.05E-06	4.83E-07	1.06E-06	4.83E-07	3.70E-06	1.17E-05
Maximum	4.93E-06	1.08E-06	5.01E-07	1.08E-06	5.02E-07	3.77E-06	1.19E-05
Average	4.92E-06	1.08E-06	4.95E-07	1.08E-06	4.96E-07	3.76E-06	1.18E-05
Std.Dev	7.97E-09	2.52E-09	1.44E-09	2.45E-09	1.45E-09	6.54E-09	2.08E-08
* Total *							
Minimum	4.84E-06	1.05E-06	4.83E-07	1.06E-06	4.83E-07	3.70E-06	1.17E-05
Maximum	4.93E-06	1.08E-06	5.01E-07	1.08E-06	5.02E-07	3.77E-06	1.19E-05
Average	4.92E-06	1.08E-06	4.95E-07	1.08E-06	4.96E-07	3.76E-06	1.18E-05
Std.Dev	7.97E-09	2.52E-09	1.44E-09	2.45E-09	1.45E-09	6.54E-09	2.08E-08

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 13:47:16 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Cs137
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cs137-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	4.55E-06	9.71E-07	4.39E-07	9.82E-07	4.38E-07	3.49E-06	1.11E-05
Maximum	4.81E-06	1.05E-06	4.85E-07	1.05E-06	4.87E-07	3.68E-06	1.16E-05
Average	4.79E-06	1.05E-06	4.81E-07	1.05E-06	4.82E-07	3.66E-06	1.15E-05
Std.Dev	2.48E-08	7.87E-09	4.54E-09	7.74E-09	4.66E-09	2.04E-08	6.48E-08

* Total *							
Minimum	4.55E-06	9.71E-07	4.39E-07	9.82E-07	4.38E-07	3.49E-06	1.11E-05
Maximum	4.81E-06	1.05E-06	4.85E-07	1.05E-06	4.87E-07	3.68E-06	1.16E-05
Average	4.79E-06	1.05E-06	4.81E-07	1.05E-06	4.82E-07	3.66E-06	1.15E-05
Std.Dev	2.48E-08	7.87E-09	4.54E-09	7.74E-09	4.66E-09	2.04E-08	6.48E-08

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 13:47:16 Page: 29 **
Title : Humboldt Bay sensitivity analysis_Cs137
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Cs137-1.bld
Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

	Receptor	1	Source 2	3	4	5	6	Total
*** 1***								
Minimum	1.25E-06	2.41E-07	9.78E-08	2.41E-07	9.82E-08	9.21E-07	2.85E-06	
Maximum	1.49E-06	3.21E-07	1.45E-07	3.20E-07	1.45E-07	1.13E-06	3.55E-06	
Average	1.37E-06	2.79E-07	1.20E-07	2.79E-07	1.21E-07	1.02E-06	3.19E-06	
Std.Dev	8.68E-08	2.84E-08	1.69E-08	2.83E-08	1.69E-08	7.62E-08	2.39E-07	

* Total *							
Minimum	1.25E-06	2.41E-07	9.78E-08	2.41E-07	9.82E-08	9.21E-07	2.85E-06
Maximum	1.49E-06	3.21E-07	1.45E-07	3.20E-07	1.45E-07	1.13E-06	3.55E-06
Average	1.37E-06	2.79E-07	1.20E-07	2.79E-07	1.21E-07	1.02E-06	3.19E-06
Std.Dev	8.68E-08	2.84E-08	1.69E-08	2.83E-08	1.69E-08	7.62E-08	2.39E-07

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 13:47:16 Page: 81 **
Title : Humboldt Bay sensitivity analysis_Cs137
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total Coefficient = Repetition =		at Time: 1		PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity		9	0.02	9	0.02	3	0.26
Resuspension Rate		3	-0.06	6	-0.08	2	-0.30
Release time of 1		2	0.09	1	0.20	4	0.21
Release time of 2		6	0.04	5	0.09	6	0.09
Release time of 3		8	0.02	8	0.05	7	0.08
Release time of 4		5	0.04	4	0.10	8	0.06
Release time of 5		7	0.03	7	0.07	9	0.02
Release time of 6		4	0.06	2	0.13	5	0.16
Building Exchange Rate		1	-0.13	3	-0.10	1	-0.38
R-SQUARE			0.39		0.39		0.76

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 13:47:16 Page: 82 **
Title : Humboldt Bay sensitivity analysis_Cs137
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1 Coefficient = Repetition =		at Time: 1		PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity		4	0.03	5	0.04	4	0.36
Resuspension Rate		3	-0.08	2	-0.10	3	-0.44
Release time of 1		1	0.22	1	0.49	1	0.69
Release time of 2		7	0.01	7	0.03	8	0.01
Release time of 3		8	0.01	8	0.02	5	-0.04
Release time of 4		5	0.02	4	0.05	7	-0.02
Release time of 5		6	0.02	6	0.04	6	0.04
Release time of 6		9	-0.01	9	-0.02	9	0.01
Building Exchange Rate		2	-0.09	3	-0.07	2	-0.46
R-SQUARE			0.38		0.38		0.88

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 13:47:16 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Cs137
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1
Coefficient =
Repetition =

Description of Probabilistic Variable	PCC 1		SRC 1		PRCC 1		SRRC 1	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity	9	0.00	9	0.00	4	0.23	3	0.24
Resuspension Rate	8	0.01	8	0.01	3	-0.27	2	-0.29
Release time of 1	3	0.04	3	0.09	5	0.06	5	0.08
Release time of 2	1	0.20	1	0.47	1	0.57	1	0.91
Release time of 3	5	-0.01	5	-0.03	7	-0.03	7	-0.05
Release time of 4	7	-0.01	7	-0.02	8	-0.02	8	-0.02
Release time of 5	4	0.01	4	0.03	6	-0.04	6	-0.06
Release time of 6	6	0.01	6	0.03	9	-0.01	9	-0.02
Building Exchange Rate	2	-0.13	2	-0.10	2	-0.40	4	-0.20
R-SQUARE		0.33		0.33		0.78		0.78

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 13:47:16 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Cs137
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1
Coefficient =
Repetition =

Description of Probabilistic Variable	PCC 1		SRC 1		PRCC 1		SRRC 1	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity	5	0.04	6	0.05	4	0.41	3	0.34
Resuspension Rate	3	-0.05	5	-0.06	3	-0.48	2	-0.43
Release time of 1	6	0.03	4	0.07	9	0.02	9	0.02
Release time of 2	7	-0.01	7	-0.02	8	0.02	8	0.02
Release time of 3	1	0.20	1	0.46	1	0.64	1	0.85
Release time of 4	8	-0.01	8	-0.01	6	-0.05	6	-0.05
Release time of 5	4	0.04	3	0.09	5	0.07	5	0.07
Release time of 6	9	0.00	9	0.00	7	-0.02	7	-0.02
Building Exchange Rate	2	-0.16	2	-0.13	2	-0.59	4	-0.25
R-SQUARE		0.36		0.36		0.88		0.88

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 13:47:16 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Cs137
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1
Coefficient =
Repetition =

Description of Probabilistic Variable	PCC 1		SRC 1		PRCC 1		SRRC 1	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity	8	0.01	8	0.02	4	0.27	3	0.29
Resuspension Rate	3	-0.04	6	-0.05	3	-0.33	2	-0.36
Release time of 1	4	0.04	3	0.08	6	0.05	6	0.06
Release time of 2	6	-0.02	5	-0.05	5	-0.08	5	-0.10
Release time of 3	9	0.00	9	-0.01	9	0.00	9	0.00
Release time of 4	1	0.20	1	0.47	1	0.54	1	0.82
Release time of 5	5	0.03	4	0.07	8	0.02	8	0.03
Release time of 6	7	0.02	7	0.04	7	0.02	7	0.03
Building Exchange Rate	2	-0.11	2	-0.09	2	-0.41	4	-0.21
R-SQUARE		0.36		0.36		0.79		0.79

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 13:47:16 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Cs137
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC 1		SRC 1	
	Sig	Coeff	Sig	Coeff
Deposition Velocity	4	0.05	4	0.06
Resuspension Rate	3	-0.10	2	-0.13
Release time of 1	5	0.01	6	0.02
Release time of 2	8	0.00	8	0.01
Release time of 3	6	0.01	5	0.02
Release time of 4	7	0.01	7	0.01
Release time of 5	1	0.22	1	0.52
Release time of 6	9	0.00	9	0.00
Building Exchange Rate	2	-0.13	3	-0.11
R-SQUARE	0.36		0.36	
			0.88	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 13:47:16 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Cs137
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC 1		SRC 1	
	Sig	Coeff	Sig	Coeff
Deposition Velocity	5	0.03	7	0.03
Resuspension Rate	3	-0.09	2	-0.11
Release time of 1	6	0.02	5	0.05
Release time of 2	8	0.00	8	0.01
Release time of 3	9	0.00	9	-0.01
Release time of 4	7	0.02	6	0.04
Release time of 5	4	0.04	4	0.08
Release time of 6	1	0.21	1	0.45
Building Exchange Rate	2	-0.12	3	-0.09
R-SQUARE	0.41		0.41	
			0.88	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Eu-152 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 20:22:01 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Eu152
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Eu152-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 20:22:01 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Eu152
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Eu152-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 20:22:01 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Eu152
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Eu152-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	8.75E-06	1.71E-06	7.05E-07	1.71E-06	7.08E-07	6.47E-06	2.01E-05
Maximum	8.89E-06	1.75E-06	7.36E-07	1.75E-06	7.22E-07	6.60E-06	2.04E-05
Average	8.82E-06	1.72E-06	7.08E-07	1.72E-06	7.10E-07	6.52E-06	2.02E-05
Std.Dev	7.75E-09	2.53E-09	2.17E-09	2.42E-09	1.66E-09	6.76E-09	2.14E-08
* Total *							
Minimum	8.75E-06	1.71E-06	7.05E-07	1.71E-06	7.08E-07	6.47E-06	2.01E-05
Maximum	8.89E-06	1.75E-06	7.36E-07	1.75E-06	7.22E-07	6.60E-06	2.04E-05
Average	8.82E-06	1.72E-06	7.08E-07	1.72E-06	7.10E-07	6.52E-06	2.02E-05
Std.Dev	7.75E-09	2.53E-09	2.17E-09	2.42E-09	1.66E-09	6.76E-09	2.14E-08

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 20:22:01 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Eu152
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Eu152-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	8.14E-06	1.60E-06	6.61E-07	1.61E-06	6.65E-07	6.04E-06	1.88E-05
Maximum	8.39E-06	1.65E-06	6.93E-07	1.65E-06	6.83E-07	6.22E-06	1.93E-05
Average	8.36E-06	1.63E-06	6.70E-07	1.63E-06	6.73E-07	6.17E-06	1.91E-05
Std.Dev	2.15E-08	3.90E-09	2.04E-09	3.87E-09	1.60E-09	1.48E-08	4.37E-08

* Total *							
Minimum	8.14E-06	1.60E-06	6.61E-07	1.61E-06	6.65E-07	6.04E-06	1.88E-05
Maximum	8.39E-06	1.65E-06	6.93E-07	1.65E-06	6.83E-07	6.22E-06	1.93E-05
Average	8.36E-06	1.63E-06	6.70E-07	1.63E-06	6.73E-07	6.17E-06	1.91E-05
Std.Dev	2.15E-08	3.90E-09	2.04E-09	3.87E-09	1.60E-09	1.48E-08	4.37E-08

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 20:22:01 Page: 29 **
Title : Humboldt Bay sensitivity analysis_Eu152
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Eu152-1.bld
Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source	2	3	4	5	6	Total
*** 1***								
Minimum	5.82E-07	1.12E-07	4.57E-08	1.12E-07	4.59E-08	4.29E-07	1.33E-06	
Maximum	6.38E-07	1.24E-07	5.10E-08	1.24E-07	5.12E-08	4.71E-07	1.46E-06	
Average	6.09E-07	1.18E-07	4.83E-08	1.18E-07	4.84E-08	4.49E-07	1.39E-06	
Std.Dev	2.01E-08	4.22E-09	1.88E-09	4.22E-09	1.89E-09	1.51E-08	4.49E-08	
* Total *								
Minimum	5.82E-07	1.12E-07	4.57E-08	1.12E-07	4.59E-08	4.29E-07	1.33E-06	
Maximum	6.38E-07	1.24E-07	5.10E-08	1.24E-07	5.12E-08	4.71E-07	1.46E-06	
Average	6.09E-07	1.18E-07	4.83E-08	1.18E-07	4.84E-08	4.49E-07	1.39E-06	
Std.Dev	2.01E-08	4.22E-09	1.88E-09	4.22E-09	1.89E-09	1.51E-08	4.49E-08	

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 20:22:01 Page: 81 **
Title : Humboldt Bay sensitivity analysis_Eu152
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total at Time: 1		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable		Sig Coeff		Sig Coeff		Sig Coeff		Sig Coeff	
Deposition Velocity		4 -0.05		6 -0.08		6 0.03		6 0.04	
Resuspension Rate		3 0.05		5 0.08		5 -0.05		5 -0.07	
Release time of 1		6 0.04		4 0.10		2 0.20		2 0.31	
Release time of 2		7 -0.01		7 -0.03		4 -0.10		4 -0.17	
Release time of 3		5 -0.04		3 -0.11		8 -0.01		8 -0.02	
Release time of 4		8 0.00		8 -0.01		9 0.01		9 0.01	
Release time of 5		2 0.06		2 0.15		7 0.02		7 0.04	
Release time of 6		9 0.00		9 0.01		3 0.14		3 0.23	
Building Exchange Rate		1 -0.35		1 -0.34		1 -0.77		1 -0.70	
R-SQUARE		0.14		0.14		0.67		0.67	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 20:22:01 Page: 82 **
Title : Humboldt Bay sensitivity analysis_Eu152
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable		Sig Coeff		Sig Coeff		Sig Coeff		Sig Coeff	
Deposition Velocity		8 -0.01		8 -0.01		4 0.08		4 0.08	
Resuspension Rate		6 0.02		7 0.03		3 -0.12		3 -0.12	
Release time of 1		2 0.12		1 0.30		2 0.49		1 0.68	
Release time of 2		7 0.01		6 0.03		6 -0.05		6 -0.06	
Release time of 3		4 -0.03		4 -0.08		7 -0.03		7 -0.04	
Release time of 4		9 0.00		9 0.01		9 0.00		9 0.00	
Release time of 5		3 0.06		3 0.15		5 0.06		5 0.08	
Release time of 6		5 -0.03		5 -0.07		8 0.01		8 0.01	
Building Exchange Rate		1 -0.30		2 -0.28		1 -0.80		2 -0.59	
R-SQUARE		0.20		0.20		0.81		0.81	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 20:22:01 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Eu152
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1		PCC	SRC	PRCC	SRRC
Coefficient = Repetition =		1	1	1	1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.05	4 -0.08	4 0.09	5 0.11	
Resuspension Rate	5 0.03	6 0.04	3 -0.13	3 -0.16	
Release time of 1	9 0.01	9 0.01	7 0.04	7 0.06	
Release time of 2	8 0.01	8 0.03	2 0.13	2 0.20	
Release time of 3	4 -0.05	3 -0.12	9 0.03	9 0.05	
Release time of 4	7 -0.02	7 -0.04	5 -0.08	4 -0.12	
Release time of 5	3 0.05	2 0.13	8 0.04	8 0.06	
Release time of 6	6 -0.03	5 -0.07	6 -0.06	6 -0.09	
Building Exchange Rate	1 -0.38	1 -0.38	1 -0.83	1 -0.81	
R-SQUARE	0.15	0.15	0.70	0.70	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 20:22:01 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Eu152
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1		PCC	SRC	PRCC	SRRC
Coefficient = Repetition =		1	1	1	1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.06	5 -0.08	3 0.23	3 0.17	
Resuspension Rate	4 0.05	6 0.08	2 -0.24	2 -0.18	
Release time of 1	7 -0.01	7 -0.04	9 0.00	9 0.00	
Release time of 2	9 0.00	9 -0.01	8 -0.01	8 -0.01	
Release time of 3	2 -0.07	2 -0.18	4 0.08	4 0.07	
Release time of 4	8 -0.01	8 -0.02	5 -0.05	5 -0.04	
Release time of 5	5 0.05	3 0.13	7 -0.01	7 -0.01	
Release time of 6	6 -0.03	4 -0.08	6 -0.03	6 -0.03	
Building Exchange Rate	1 -0.32	1 -0.32	1 -0.94	1 -0.94	
R-SQUARE	0.14	0.14	0.89	0.89	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 20:22:01 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Eu152
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1		PCC	SRC	PRCC	SRRC
Coefficient = Repetition =		1	1	1	1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.06	4 -0.09	7 0.02	8 0.02	
Resuspension Rate	3 0.06	5 0.09	4 -0.05	5 -0.06	
Release time of 1	8 0.01	8 0.03	5 0.04	4 0.07	
Release time of 2	7 -0.01	7 -0.03	3 -0.08	3 -0.13	
Release time of 3	5 -0.05	3 -0.13	9 0.00	9 0.00	
Release time of 4	9 -0.01	9 -0.03	2 0.13	2 0.20	
Release time of 5	4 0.06	2 0.16	6 0.03	6 0.05	
Release time of 6	6 -0.02	6 -0.06	8 -0.02	7 -0.03	
Building Exchange Rate	1 -0.38	1 -0.38	1 -0.83	1 -0.81	
R-SQUARE	0.16	0.16	0.69	0.69	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 20:22:01 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Eu152
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1		PCC	SRC	PRCC	SRRC
Coefficient =		1	1	1	1
Repetition =					
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff	
Deposition Velocity	2 -0.07	3 -0.10	3 0.19	3 0.14	
Resuspension Rate	4 0.06	4 0.09	2 -0.22	2 -0.17	
Release time of 1	6 0.01	7 0.03	5 0.03	5 0.03	
Release time of 2	8 -0.01	8 -0.01	9 -0.01	9 -0.01	
Release time of 3	3 -0.06	2 -0.16	7 -0.03	6 -0.03	
Release time of 4	9 0.00	9 -0.01	8 -0.02	8 -0.02	
Release time of 5	7 -0.01	6 -0.03	4 0.05	4 0.04	
Release time of 6	5 -0.02	5 -0.05	6 -0.03	7 -0.03	
Building Exchange Rate	1 -0.39	1 -0.38	1 -0.94	1 -0.94	
R-SQUARE	0.20	0.20	0.89	0.89	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 20:22:01 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Eu152
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1		PCC	SRC	PRCC	SRRC
Coefficient =		1	1	1	1
Repetition =					
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff	
Deposition Velocity	5 -0.05	6 -0.07	5 0.06	6 0.06	
Resuspension Rate	4 0.05	5 0.07	3 -0.10	3 -0.10	
Release time of 1	9 0.00	9 0.00	6 0.05	5 0.06	
Release time of 2	8 0.01	8 0.02	4 -0.07	4 -0.09	
Release time of 3	3 -0.05	3 -0.13	9 -0.04	9 -0.05	
Release time of 4	7 0.01	7 0.02	8 0.04	8 0.05	
Release time of 5	2 0.06	2 0.16	7 0.04	7 0.06	
Release time of 6	6 0.04	4 0.10	2 0.38	2 0.51	
Building Exchange Rate	1 -0.33	1 -0.33	1 -0.84	1 -0.71	
R-SQUARE	0.14	0.14	0.80	0.80	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Eu-154 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 09:42:33 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Eu154
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Eu154-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 09:42:33 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Eu154
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Eu154-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 09:42:33 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Eu154
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Eu154-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	8.41E-06	1.66E-06	6.86E-07	1.67E-06	6.90E-07	6.24E-06	1.94E-05
Maximum	8.68E-06	1.71E-06	7.25E-07	1.71E-06	7.11E-07	6.45E-06	2.00E-05
Average	8.63E-06	1.69E-06	6.96E-07	1.69E-06	6.98E-07	6.38E-06	1.98E-05
Std.Dev	2.23E-08	4.20E-09	2.42E-09	4.17E-09	1.81E-09	1.56E-08	4.63E-08
* Total *							
Minimum	8.41E-06	1.66E-06	6.86E-07	1.67E-06	6.90E-07	6.24E-06	1.94E-05
Maximum	8.68E-06	1.71E-06	7.25E-07	1.71E-06	7.11E-07	6.45E-06	2.00E-05
Average	8.63E-06	1.69E-06	6.96E-07	1.69E-06	6.98E-07	6.38E-06	1.98E-05
Std.Dev	2.23E-08	4.20E-09	2.42E-09	4.17E-09	1.81E-09	1.56E-08	4.63E-08

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 09:42:33 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Eu154
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Eu154-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	8.41E-06	1.66E-06	6.86E-07	1.67E-06	6.90E-07	6.24E-06	1.94E-05
Maximum	8.68E-06	1.71E-06	7.25E-07	1.71E-06	7.11E-07	6.45E-06	2.00E-05
Average	8.63E-06	1.69E-06	6.96E-07	1.69E-06	6.98E-07	6.38E-06	1.98E-05
Std.Dev	2.23E-08	4.20E-09	2.42E-09	4.17E-09	1.81E-09	1.56E-08	4.63E-08

* Total *							
Minimum	8.41E-06	1.66E-06	6.86E-07	1.67E-06	6.90E-07	6.24E-06	1.94E-05
Maximum	8.68E-06	1.71E-06	7.25E-07	1.71E-06	7.11E-07	6.45E-06	2.00E-05
Average	8.63E-06	1.69E-06	6.96E-07	1.69E-06	6.98E-07	6.38E-06	1.98E-05
Std.Dev	2.23E-08	4.20E-09	2.42E-09	4.17E-09	1.81E-09	1.56E-08	4.63E-08

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 09:42:33 Page: 29 **
 Title : Humboldt Bay sensitivity analysis_Eu154
 Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Eu154-1.bld
 Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source	2	3	4	5	6	Total
*** 1***								
Minimum	1.62E-07	3.13E-08	1.27E-08	3.13E-08	1.28E-08	1.20E-07	3.70E-07	
Maximum	1.79E-07	3.48E-08	1.43E-08	3.48E-08	1.44E-08	1.32E-07	4.08E-07	
Average	1.70E-07	3.30E-08	1.35E-08	3.30E-08	1.35E-08	1.25E-07	3.89E-07	
Std.Dev	5.74E-09	1.24E-09	5.67E-10	1.24E-09	5.69E-10	4.37E-09	1.30E-08	

* Total *							
Minimum	1.62E-07	3.13E-08	1.27E-08	3.13E-08	1.28E-08	1.20E-07	3.70E-07
Maximum	1.79E-07	3.48E-08	1.43E-08	3.48E-08	1.44E-08	1.32E-07	4.08E-07
Average	1.70E-07	3.30E-08	1.35E-08	3.30E-08	1.35E-08	1.25E-07	3.89E-07
Std.Dev	5.74E-09	1.24E-09	5.67E-10	1.24E-09	5.69E-10	4.37E-09	1.30E-08

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 09:42:33 Page: 81 **
 Title : Humboldt Bay sensitivity analysis_Eu154
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total at Time: 1		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable		Sig Coeff		Sig Coeff		Sig Coeff		Sig Coeff	
Deposition Velocity		5 -0.05		5 -0.07		5 0.06		5 0.07	
Resuspension Rate		2 0.06		4 0.09		4 -0.07		4 -0.08	
Release time of 1		6 0.02		6 0.06		2 0.15		2 0.21	
Release time of 2		8 0.01		8 0.02		8 -0.01		8 -0.02	
Release time of 3		4 -0.05		3 -0.14		6 -0.04		6 -0.05	
Release time of 4		9 0.00		9 0.00		9 0.01		9 0.02	
Release time of 5		3 0.05		2 0.15		7 0.03		7 0.05	
Release time of 6		7 -0.01		7 -0.03		3 0.11		3 0.16	
Building Exchange Rate		1 -0.36		1 -0.36		1 -0.84		1 -0.78	
R-SQUARE		0.14		0.14		0.75		0.75	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 09:42:33 Page: 82 **
 Title : Humboldt Bay sensitivity analysis_Eu154
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable		Sig Coeff		Sig Coeff		Sig Coeff		Sig Coeff	
Deposition Velocity		7 -0.02		8 -0.04		4 0.05		7 0.05	
Resuspension Rate		5 0.04		6 0.06		3 -0.10		3 -0.09	
Release time of 1		2 0.10		2 0.24		2 0.48		2 0.64	
Release time of 2		8 0.01		7 0.04		7 -0.04		6 -0.05	
Release time of 3		4 -0.04		4 -0.11		5 -0.05		4 -0.06	
Release time of 4		9 0.00		9 -0.01		9 -0.01		9 -0.01	
Release time of 5		3 0.06		3 0.15		6 0.05		5 0.06	
Release time of 6		6 -0.02		5 -0.06		8 0.03		8 0.03	
Building Exchange Rate		1 -0.31		1 -0.30		1 -0.83		1 -0.65	
R-SQUARE		0.16		0.16		0.81		0.81	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 09:42:33 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Eu154
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.06	4 -0.09	8 0.03	8 0.03
Resuspension Rate	4 0.05	5 0.08	5 -0.04	7 -0.04
Release time of 1	9 0.00	9 0.00	9 -0.01	9 -0.02
Release time of 2	8 -0.01	8 -0.02	2 0.12	2 0.16
Release time of 3	2 -0.07	2 -0.18	3 -0.09	3 -0.13
Release time of 4	6 -0.01	6 -0.03	4 -0.05	4 -0.07
Release time of 5	5 0.05	3 0.13	7 0.04	6 0.05
Release time of 6	7 -0.01	7 -0.02	6 0.04	5 0.05
Building Exchange Rate	1 -0.38	1 -0.37	1 -0.87	1 -0.87
R-SQUARE	0.16	0.16	0.76	0.76

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 09:42:33 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Eu154
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.06	5 -0.09	3 0.19	3 0.13
Resuspension Rate	3 0.06	4 0.09	2 -0.20	2 -0.14
Release time of 1	7 -0.01	7 -0.04	9 0.00	9 0.00
Release time of 2	9 0.00	9 -0.01	8 0.01	8 0.01
Release time of 3	2 -0.07	2 -0.19	7 0.02	7 0.02
Release time of 4	8 -0.01	8 -0.01	5 -0.03	5 -0.02
Release time of 5	5 0.04	3 0.12	6 -0.02	6 -0.02
Release time of 6	6 -0.03	6 -0.08	4 -0.05	4 -0.04
Building Exchange Rate	1 -0.32	1 -0.31	1 -0.95	1 -0.94
R-SQUARE	0.14	0.14	0.90	0.90

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 09:42:33 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Eu154
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.06	4 -0.09	9 0.00	9 0.00
Resuspension Rate	5 0.06	5 0.08	7 -0.02	7 -0.02
Release time of 1	9 0.00	9 0.01	6 0.03	6 0.04
Release time of 2	8 -0.01	8 -0.02	4 -0.07	4 -0.09
Release time of 3	3 -0.06	3 -0.16	3 -0.08	3 -0.12
Release time of 4	6 -0.02	6 -0.06	2 0.11	2 0.15
Release time of 5	4 0.06	2 0.16	5 0.05	5 0.07
Release time of 6	7 -0.02	7 -0.05	8 0.01	8 0.01
Building Exchange Rate	1 -0.37	1 -0.37	1 -0.87	1 -0.86
R-SQUARE	0.15	0.15	0.75	0.75

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 09:42:33 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Eu154
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	2	-0.07	3	-0.11
Resuspension Rate	3	0.07	4	0.10
Release time of 1	7	0.01	7	0.03
Release time of 2	8	-0.01	8	-0.02
Release time of 3	4	-0.06	2	-0.16
Release time of 4	9	0.00	9	-0.01
Release time of 5	5	-0.02	5	-0.05
Release time of 6	6	-0.02	6	-0.05
Building Exchange Rate	1	-0.39	1	-0.38
R-SQUARE		0.21		0.21

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 09:42:33 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Eu154
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	4	-0.05	5	-0.08
Resuspension Rate	2	0.06	4	0.10
Release time of 1	9	0.00	9	-0.01
Release time of 2	7	0.01	7	0.03
Release time of 3	5	-0.05	3	-0.14
Release time of 4	8	0.01	8	0.02
Release time of 5	3	0.06	2	0.17
Release time of 6	6	0.01	6	0.03
Building Exchange Rate	1	-0.34	1	-0.34
R-SQUARE		0.13		0.13

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

H-3 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 11:25:48 Page: 1 **
Title : Humboldt Bay sensitivity analysis_H3
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-H3-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 11:25:48 Page: 2 **
Title : Humboldt Bay sensitivity analysis_H3
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-H3-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 11:25:48 Page: 3 **
Title : Humboldt Bay sensitivity analysis_H3
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-H3-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	6.41E-10	2.82E-10	1.88E-10	2.83E-10	1.88E-10	6.39E-10	2.22E-09
Maximum	1.21E-09	4.72E-10	3.81E-10	4.76E-10	3.02E-10	1.26E-09	4.08E-09
Average	6.71E-10	2.96E-10	1.98E-10	2.96E-10	1.97E-10	6.71E-10	2.33E-09
Std.Dev	4.88E-11	2.16E-11	1.64E-11	2.04E-11	1.41E-11	4.92E-11	1.65E-10
* Total *							
Minimum	6.41E-10	2.82E-10	1.88E-10	2.83E-10	1.88E-10	6.39E-10	2.22E-09
Maximum	1.21E-09	4.72E-10	3.81E-10	4.76E-10	3.02E-10	1.26E-09	4.08E-09
Average	6.71E-10	2.96E-10	1.98E-10	2.96E-10	1.97E-10	6.71E-10	2.33E-09
Std.Dev	4.88E-11	2.16E-11	1.64E-11	2.04E-11	1.41E-11	4.92E-11	1.65E-10

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 11:25:48 Page: 16 **
Title : Humboldt Bay sensitivity analysis_H3
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-H3-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	5.42E-10	2.51E-10	1.65E-10	2.53E-10	1.70E-10	5.42E-10	1.97E-09
Maximum	1.11E-09	4.35E-10	3.48E-10	4.38E-10	2.72E-10	1.15E-09	3.74E-09
Average	6.24E-10	2.76E-10	1.84E-10	2.76E-10	1.84E-10	6.24E-10	2.17E-09
Std.Dev	4.21E-11	1.81E-11	1.40E-11	1.71E-11	1.15E-11	4.26E-11	1.42E-10

* Total *							
Minimum	5.42E-10	2.51E-10	1.65E-10	2.53E-10	1.70E-10	5.42E-10	1.97E-09
Maximum	1.11E-09	4.35E-10	3.48E-10	4.38E-10	2.72E-10	1.15E-09	3.74E-09
Average	6.24E-10	2.76E-10	1.84E-10	2.76E-10	1.84E-10	6.24E-10	2.17E-09
Std.Dev	4.21E-11	1.81E-11	1.40E-11	1.71E-11	1.15E-11	4.26E-11	1.42E-10

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 11:25:48 Page: 29 **
Title : Humboldt Bay sensitivity analysis_H3
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-H3-1.bld
Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source	2	3	4	5	6	Total
*** 1***								
Minimum	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum	3.22E-11	1.45E-11	9.45E-12	1.44E-11	9.55E-12	3.25E-11	1.12E-10	
Average	1.59E-11	7.03E-12	4.69E-12	7.04E-12	4.68E-12	1.60E-11	5.54E-11	
Std.Dev	1.16E-11	5.10E-12	3.39E-12	5.09E-12	3.41E-12	1.15E-11	3.78E-11	
* Total *								
Minimum	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum	3.22E-11	1.45E-11	9.45E-12	1.44E-11	9.55E-12	3.25E-11	1.12E-10	
Average	1.59E-11	7.03E-12	4.69E-12	7.04E-12	4.68E-12	1.60E-11	5.54E-11	
Std.Dev	1.16E-11	5.10E-12	3.39E-12	5.09E-12	3.41E-12	1.15E-11	3.78E-11	

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:25:48 Page: 81 **
Title : Humboldt Bay sensitivity analysis_H3
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total	at Time: 1				
Coefficient =		PCC	SRC	PRCC	SRRC
Repetition =		1	1	1	1
Description of Probabilistic Variable		Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity		3 -0.06	5 -0.09	3 0.48	3 0.34
Resuspension Rate		6 0.04	8 0.06	2 -0.54	2 -0.40
Release time of 1		7 -0.03	6 -0.08	6 -0.14	6 -0.11
Release time of 2		9 -0.01	9 -0.02	7 -0.08	7 -0.06
Release time of 3		2 -0.07	2 -0.17	8 0.03	8 0.02
Release time of 4		8 -0.03	7 -0.07	5 -0.16	5 -0.12
Release time of 5		5 0.04	4 0.11	9 0.00	9 0.00
Release time of 6		4 -0.06	3 -0.14	4 -0.20	4 -0.16
Building Exchange Rate		1 -0.35	1 -0.33	1 -0.95	1 -0.84
R-SQUARE		0.23	0.23	0.92	0.92

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:25:48 Page: 82 **
Title : Humboldt Bay sensitivity analysis_H3
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1					
Coefficient =		PCC	SRC	PRCC	SRRC
Repetition =		1	1	1	1
Description of Probabilistic Variable		Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity		6 -0.05	6 -0.08	3 0.48	4 0.35
Resuspension Rate		5 0.06	5 0.08	2 -0.53	2 -0.40
Release time of 1		2 -0.10	2 -0.24	4 -0.45	3 -0.40
Release time of 2		9 0.00	9 0.01	9 -0.02	9 -0.01
Release time of 3		3 -0.06	3 -0.16	7 0.07	6 0.06
Release time of 4		8 -0.02	8 -0.05	5 -0.10	5 -0.08
Release time of 5		4 0.06	4 0.15	6 0.07	7 0.06
Release time of 6		7 -0.03	7 -0.06	8 -0.07	8 -0.06
Building Exchange Rate		1 -0.34	1 -0.32	1 -0.94	1 -0.84
R-SQUARE		0.22	0.22	0.92	0.92

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:25:48 Page: 83 **
Title : Humboldt Bay sensitivity analysis_H3
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.05	5 -0.08	3 0.51	4 0.36
Resuspension Rate	8 0.01	9 0.01	2 -0.57	3 -0.42
Release time of 1	9 0.00	8 -0.01	8 0.04	8 0.03
Release time of 2	2 -0.09	2 -0.22	4 -0.49	2 -0.44
Release time of 3	3 -0.05	3 -0.13	6 0.06	6 0.05
Release time of 4	7 -0.02	7 -0.04	5 -0.11	5 -0.08
Release time of 5	5 0.03	4 0.09	7 0.06	7 0.05
Release time of 6	6 -0.02	6 -0.05	9 -0.03	9 -0.02
Building Exchange Rate	1 -0.35	1 -0.33	1 -0.95	1 -0.83
R-SQUARE	0.23	0.23	0.92	0.92

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:25:48 Page: 84 **
Title : Humboldt Bay sensitivity analysis_H3
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.05	5 -0.08	3 0.45	4 0.32
Resuspension Rate	6 0.03	7 0.04	2 -0.52	2 -0.38
Release time of 1	7 -0.02	6 -0.04	8 0.03	8 0.03
Release time of 2	9 0.00	9 0.00	9 -0.02	9 -0.02
Release time of 3	2 -0.11	2 -0.29	4 -0.41	3 -0.37
Release time of 4	8 -0.01	8 -0.03	6 -0.07	7 -0.05
Release time of 5	4 0.04	3 0.11	7 0.07	6 0.05
Release time of 6	5 -0.03	4 -0.08	5 -0.07	5 -0.06
Building Exchange Rate	1 -0.32	1 -0.30	1 -0.95	1 -0.84
R-SQUARE	0.20	0.20	0.92	0.92

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:25:48 Page: 85 **
Title : Humboldt Bay sensitivity analysis_H3
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.05	5 -0.08	4 0.46	4 0.32
Resuspension Rate	7 0.02	7 0.03	3 -0.53	3 -0.38
Release time of 1	9 0.00	9 -0.01	7 0.04	7 0.03
Release time of 2	8 0.00	8 -0.01	9 0.00	9 0.00
Release time of 3	4 -0.05	3 -0.13	5 0.10	5 0.08
Release time of 4	2 -0.11	2 -0.28	2 -0.55	2 -0.51
Release time of 5	5 0.05	4 0.13	8 0.02	8 0.02
Release time of 6	6 -0.03	6 -0.07	6 -0.06	6 -0.05
Building Exchange Rate	1 -0.36	1 -0.34	1 -0.95	1 -0.83
R-SQUARE	0.24	0.24	0.92	0.92

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:25:48 Page: 86 **
Title : Humboldt Bay sensitivity analysis_H3
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.07	4 -0.10	3 0.47	4 0.33
Resuspension Rate	5 0.04	5 0.06	2 -0.53	2 -0.39
Release time of 1	7 0.01	7 0.02	8 0.05	8 0.04
Release time of 2	9 -0.01	9 -0.02	9 0.01	9 0.01
Release time of 3	4 -0.06	3 -0.16	7 0.07	7 0.05
Release time of 4	8 -0.01	8 -0.02	5 -0.12	5 -0.09
Release time of 5	3 -0.06	2 -0.16	4 -0.42	3 -0.37
Release time of 6	6 -0.02	6 -0.04	6 -0.07	6 -0.06
Building Exchange Rate	1 -0.35	1 -0.33	1 -0.95	1 -0.84
R-SQUARE	0.24	0.24	0.92	0.92

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:25:48 Page: 87 **
Title : Humboldt Bay sensitivity analysis_H3
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.06	5 -0.09	3 0.49	4 0.35
Resuspension Rate	5 0.06	6 0.08	2 -0.55	3 -0.41
Release time of 1	8 -0.01	8 -0.02	9 0.01	9 0.00
Release time of 2	9 0.01	9 0.02	8 0.01	8 0.00
Release time of 3	3 -0.06	3 -0.16	6 0.06	6 0.05
Release time of 4	7 -0.01	7 -0.03	5 -0.09	5 -0.07
Release time of 5	6 0.06	4 0.15	7 0.02	7 0.02
Release time of 6	2 -0.12	2 -0.30	4 -0.47	2 -0.43
Building Exchange Rate	1 -0.34	1 -0.32	1 -0.94	1 -0.83
R-SQUARE	0.22	0.22	0.92	0.92

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

I-129 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 11:28:19 Page: 1 **
Title : Humboldt Bay sensitivity analysis_I129
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-I129-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 11:28:19 Page: 2 **
Title : Humboldt Bay sensitivity analysis_I129
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-I129-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 11:28:19 Page: 3 **
Title : Humboldt Bay sensitivity analysis_I129
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-I129-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	2.97E-06	1.25E-06	8.16E-07	1.28E-06	8.13E-07	2.98E-06	1.03E-05
Maximum	3.66E-06	1.55E-06	1.01E-06	1.52E-06	1.02E-06	3.64E-06	1.23E-05
Average	3.21E-06	1.34E-06	8.74E-07	1.34E-06	8.74E-07	3.16E-06	1.08E-05
Std.Dev	4.64E-08	2.04E-08	1.33E-08	1.85E-08	1.39E-08	4.22E-08	1.50E-07
* Total *							
Minimum	2.97E-06	1.25E-06	8.16E-07	1.28E-06	8.13E-07	2.98E-06	1.03E-05
Maximum	3.66E-06	1.55E-06	1.01E-06	1.52E-06	1.02E-06	3.64E-06	1.23E-05
Average	3.21E-06	1.34E-06	8.74E-07	1.34E-06	8.74E-07	3.16E-06	1.08E-05
Std.Dev	4.64E-08	2.04E-08	1.33E-08	1.85E-08	1.39E-08	4.22E-08	1.50E-07

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 11:28:19 Page: 16 **
Title : Humboldt Bay sensitivity analysis_I129
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-I129-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	2.42E-06	1.01E-06	6.65E-07	1.06E-06	6.53E-07	2.52E-06	9.12E-06
Maximum	3.59E-06	1.51E-06	9.71E-07	1.50E-06	9.60E-07	3.57E-06	1.21E-05
Average	3.16E-06	1.32E-06	8.59E-07	1.32E-06	8.59E-07	3.11E-06	1.06E-05
Std.Dev	7.91E-08	3.48E-08	2.18E-08	3.37E-08	2.18E-08	7.63E-08	2.51E-07

* Total *							
Minimum	2.42E-06	1.01E-06	6.65E-07	1.06E-06	6.53E-07	2.52E-06	9.12E-06
Maximum	3.59E-06	1.51E-06	9.71E-07	1.50E-06	9.60E-07	3.57E-06	1.21E-05
Average	3.16E-06	1.32E-06	8.59E-07	1.32E-06	8.59E-07	3.11E-06	1.06E-05
Std.Dev	7.91E-08	3.48E-08	2.18E-08	3.37E-08	2.18E-08	7.63E-08	2.51E-07

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 11:28:19 Page: 29 **
 Title : Humboldt Bay sensitivity analysis_I129
 Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-I129-1.bld
 Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

	Receptor	1	Source	2	3	4	5	6	Total
*** 1***									
Minimum	3.10E-07	6.95E-08	2.85E-08	6.95E-08	2.86E-08	2.63E-07	7.69E-07		
Maximum	2.66E-06	1.10E-06	7.12E-07	1.10E-06	7.13E-07	2.61E-06	8.82E-06		
Average	1.43E-06	5.62E-07	3.56E-07	5.63E-07	3.56E-07	1.38E-06	4.65E-06		
Std.Dev	8.38E-07	3.68E-07	2.45E-07	3.68E-07	2.44E-07	8.36E-07	2.73E-06		

* Total *							
Minimum	3.10E-07	6.95E-08	2.85E-08	6.95E-08	2.86E-08	2.63E-07	7.69E-07
Maximum	2.66E-06	1.10E-06	7.12E-07	1.10E-06	7.13E-07	2.61E-06	8.82E-06
Average	1.43E-06	5.62E-07	3.56E-07	5.63E-07	3.56E-07	1.38E-06	4.65E-06
Std.Dev	8.38E-07	3.68E-07	2.45E-07	3.68E-07	2.44E-07	8.36E-07	2.73E-06

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:28:19 Page: 81 **
 Title : Humboldt Bay sensitivity analysis_I129
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total Coefficient = Repetition =		at Time: 1		PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity		2	-0.07	3	-0.11	3	0.28
Resuspension Rate		7	-0.02	8	-0.04	2	-0.53
Release time of 1		3	0.04	2	0.12	4	0.21
Release time of 2		7	-0.02	6	-0.05	8	0.03
Release time of 3		9	-0.01	9	-0.02	9	0.00
Release time of 4		4	0.03	4	0.08	5	0.15
Release time of 5		6	0.02	5	0.06	6	0.05
Release time of 6		8	-0.02	7	-0.04	7	0.04
Building Exchange Rate		1	-0.19	1	-0.18	1	-0.56
R-SQUARE			0.08		0.08		0.74

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:28:19 Page: 82 **
 Title : Humboldt Bay sensitivity analysis_I129
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1		Coefficient =		Repetition =		PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity		3	-0.07	3	-0.10	4	0.29	4	0.33
Resuspension Rate		4	-0.03	6	-0.05	2	-0.54	2	-0.68
Release time of 1		2	0.07	1	0.18	3	0.48	1	0.73
Release time of 2		7	-0.01	7	-0.04	8	-0.02	8	-0.02
Release time of 3		8	-0.01	8	-0.04	7	-0.05	7	-0.07
Release time of 4		6	0.02	5	0.06	5	0.08	5	0.11
Release time of 5		9	0.01	9	0.03	9	0.01	9	0.02
Release time of 6		5	-0.02	4	-0.06	6	-0.07	6	-0.09
Building Exchange Rate		1	-0.18	2	-0.17	1	-0.58	3	-0.35
R-SQUARE			0.07		0.07		0.76		0.76

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:28:19 Page: 83 **
Title : Humboldt Bay sensitivity analysis_I129
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	2	-0.07	2	-0.12
Resuspension Rate	9	0.00	9	0.00
Release time of 1	5	0.03	5	0.07
Release time of 2	3	0.04	3	0.11
Release time of 3	6	-0.01	6	-0.04
Release time of 4	7	0.01	7	0.03
Release time of 5	8	0.01	8	0.02
Release time of 6	4	-0.03	4	-0.07
Building Exchange Rate	1	-0.18	1	-0.54
R-SQUARE	0.06	0.06	0.73	0.73

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:28:19 Page: 84 **
Title : Humboldt Bay sensitivity analysis_I129
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	2	-0.07	3	-0.10
Resuspension Rate	7	-0.01	9	-0.02
Release time of 1	6	0.02	6	0.06
Release time of 2	4	-0.02	4	-0.07
Release time of 3	3	0.05	2	0.13
Release time of 4	9	0.01	8	0.03
Release time of 5	8	0.01	7	0.03
Release time of 6	5	-0.02	5	-0.06
Building Exchange Rate	1	-0.19	1	-0.58
R-SQUARE	0.06	0.06	0.74	0.74

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:28:19 Page: 85 **
Title : Humboldt Bay sensitivity analysis_I129
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	3	-0.08	3	-0.12
Resuspension Rate	9	-0.01	9	-0.01
Release time of 1	4	0.04	4	0.10
Release time of 2	6	-0.03	6	-0.08
Release time of 3	8	-0.02	8	-0.06
Release time of 4	2	0.08	1	0.22
Release time of 5	7	0.03	7	0.07
Release time of 6	5	-0.03	5	-0.09
Building Exchange Rate	1	-0.18	2	-0.18
R-SQUARE	0.08	0.08	0.74	0.74

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:28:19 Page: 86 **
Title : Humboldt Bay sensitivity analysis_I129
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1
Coefficient =
Repetition =

Description of Probabilistic Variable	PCC 1		SRC 1		PRCC 1		SRRC 1	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity	2	-0.06	3	-0.10	4	0.30	3	0.35
Resuspension Rate	4	-0.03	7	-0.05	2	-0.54	1	-0.72
Release time of 1	7	0.02	6	0.06	7	0.06	8	0.09
Release time of 2	6	-0.03	5	-0.08	9	-0.03	9	-0.04
Release time of 3	9	-0.01	9	-0.04	8	-0.06	7	-0.09
Release time of 4	3	0.03	4	0.08	5	0.11	5	0.15
Release time of 5	3	0.05	2	0.13	3	0.43	2	0.69
Release time of 6	8	-0.02	8	-0.05	6	-0.10	6	-0.15
Building Exchange Rate	1	-0.18	1	-0.17	1	-0.56	4	-0.34
R-SQUARE		0.06		0.06		0.74		0.74

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 11:28:19 Page: 87 **
Title : Humboldt Bay sensitivity analysis_I129
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1
Coefficient =
Repetition =

Description of Probabilistic Variable	PCC 1		SRC 1		PRCC 1		SRRC 1	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity	2	-0.07	2	-0.11	4	0.29	4	0.34
Resuspension Rate	4	-0.03	7	-0.05	2	-0.54	1	-0.71
Release time of 1	3	0.04	3	0.11	6	0.07	6	0.10
Release time of 2	5	-0.03	4	-0.08	8	-0.03	8	-0.04
Release time of 3	9	-0.01	9	-0.03	7	-0.05	7	-0.07
Release time of 4	7	0.02	6	0.06	5	0.09	5	0.12
Release time of 5	6	0.02	5	0.07	9	-0.01	9	-0.01
Release time of 6	8	0.01	8	0.04	3	0.37	2	0.56
Building Exchange Rate	1	-0.19	1	-0.19	1	-0.57	3	-0.35
R-SQUARE		0.09		0.09		0.74		0.74

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained

Nb-94 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 13:50:18 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Nb94
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Nb94-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 13:50:18 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Nb94
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Nb94-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 13:50:18 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Nb94
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Nb94-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	1.24E-05	2.41E-06	9.87E-07	2.41E-06	9.90E-07	9.13E-06	2.83E-05
Maximum	1.26E-05	2.48E-06	1.05E-06	2.47E-06	1.06E-06	9.35E-06	2.89E-05
Average	1.24E-05	2.42E-06	9.91E-07	2.42E-06	9.94E-07	9.18E-06	2.85E-05
Std.Dev	1.73E-08	7.48E-09	5.88E-09	6.85E-09	5.52E-09	1.59E-08	5.61E-08
* Total *							
Minimum	1.24E-05	2.41E-06	9.87E-07	2.41E-06	9.90E-07	9.13E-06	2.83E-05
Maximum	1.26E-05	2.48E-06	1.05E-06	2.47E-06	1.06E-06	9.35E-06	2.89E-05
Average	1.24E-05	2.42E-06	9.91E-07	2.42E-06	9.94E-07	9.18E-06	2.85E-05
Std.Dev	1.73E-08	7.48E-09	5.88E-09	6.85E-09	5.52E-09	1.59E-08	5.61E-08

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 13:50:18 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Nb94
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Nb94-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	1.21E-05	2.38E-06	9.75E-07	2.38E-06	9.82E-07	8.97E-06	2.79E-05
Maximum	1.25E-05	2.46E-06	1.04E-06	2.46E-06	1.04E-06	9.29E-06	2.88E-05
Average	1.24E-05	2.41E-06	9.89E-07	2.41E-06	9.92E-07	9.17E-06	2.84E-05
Std.Dev	3.10E-08	7.46E-09	5.21E-09	7.05E-09	4.70E-09	2.27E-08	7.00E-08

* Total *							
Minimum	1.21E-05	2.38E-06	9.75E-07	2.38E-06	9.82E-07	8.97E-06	2.79E-05
Maximum	1.25E-05	2.46E-06	1.04E-06	2.46E-06	1.04E-06	9.29E-06	2.88E-05
Average	1.24E-05	2.41E-06	9.89E-07	2.41E-06	9.92E-07	9.17E-06	2.84E-05
Std.Dev	3.10E-08	7.46E-09	5.21E-09	7.05E-09	4.70E-09	2.27E-08	7.00E-08

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 13:50:18 Page: 29 **
Title : Humboldt Bay sensitivity analysis_Nb94
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Nb94-1.bld
Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

	Receptor	1	Source	2	3	4	5	6	Total
*** 1***									
Minimum	1.11E-05	2.14E-06	8.69E-07	2.14E-06	8.72E-07	8.18E-06	2.53E-05		
Maximum	1.22E-05	2.36E-06	9.65E-07	2.36E-06	9.68E-07	8.98E-06	2.78E-05		
Average	1.16E-05	2.25E-06	9.15E-07	2.25E-06	9.19E-07	8.56E-06	2.65E-05		
Std.Dev	3.78E-07	7.82E-08	3.43E-08	7.82E-08	3.44E-08	2.83E-07	8.40E-07		

* Total *							
Minimum	1.11E-05	2.14E-06	8.69E-07	2.14E-06	8.72E-07	8.18E-06	2.53E-05
Maximum	1.22E-05	2.36E-06	9.65E-07	2.36E-06	9.68E-07	8.98E-06	2.78E-05
Average	1.16E-05	2.25E-06	9.15E-07	2.25E-06	9.19E-07	8.56E-06	2.65E-05
Std.Dev	3.78E-07	7.82E-08	3.43E-08	7.82E-08	3.44E-08	2.83E-07	8.40E-07

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 13:50:18 Page: 81 **
Title : Humboldt Bay sensitivity analysis_Nb94
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	2	-0.09	2	-0.14
Resuspension Rate	4	0.04	6	0.06
Release time of 1	7	0.02	7	0.04
Release time of 2	8	-0.01	8	-0.03
Release time of 3	3	-0.05	3	-0.14
Release time of 4	9	0.00	9	0.00
Release time of 5	6	0.03	5	0.09
Release time of 6	5	-0.04	4	-0.10
Building Exchange Rate	1	-0.34	1	-0.33
R-SQUARE		0.14		0.14

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 13:50:18 Page: 82 **
Title : Humboldt Bay sensitivity analysis_Nb94
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	3	-0.05	5	-0.08
Resuspension Rate	7	0.01	8	0.02
Release time of 1	2	0.06	2	0.15
Release time of 2	8	-0.01	7	-0.03
Release time of 3	5	-0.04	4	-0.10
Release time of 4	9	0.01	9	0.01
Release time of 5	4	0.05	3	0.13
Release time of 6	6	-0.03	6	-0.07
Building Exchange Rate	1	-0.33	1	-0.33
R-SQUARE		0.13		0.13

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 13:50:18 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Nb94
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	2 -0.09	2 -0.13	3 0.30	3 0.29
Resuspension Rate	6 0.03	7 0.04	2 -0.44	2 -0.44
Release time of 1	8 0.01	8 0.02	9 0.00	9 0.00
Release time of 2	3 -0.05	3 -0.13	6 -0.02	6 -0.02
Release time of 3	4 -0.04	4 -0.10	5 0.06	5 0.07
Release time of 4	9 0.00	9 0.00	8 0.00	8 0.01
Release time of 5	7 0.02	6 0.06	7 -0.02	7 -0.02
Release time of 6	5 -0.03	5 -0.09	4 -0.07	4 -0.08
Building Exchange Rate	1 -0.34	1 -0.33	1 -0.90	1 -0.87
R-SQUARE	0.17	0.17	0.83	0.83

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 13:50:18 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Nb94
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	2 -0.09	3 -0.13	3 0.33	3 0.26
Resuspension Rate	4 0.04	6 0.06	2 -0.49	2 -0.41
Release time of 1	8 -0.01	8 -0.02	9 0.00	9 0.00
Release time of 2	7 -0.01	7 -0.03	7 0.02	7 0.02
Release time of 3	3 -0.08	2 -0.21	4 -0.12	4 -0.12
Release time of 4	9 0.00	9 0.00	6 0.03	6 0.03
Release time of 5	6 0.03	5 0.08	8 0.00	8 0.00
Release time of 6	5 -0.04	4 -0.09	5 -0.11	5 -0.10
Building Exchange Rate	1 -0.30	1 -0.29	1 -0.94	1 -0.89
R-SQUARE	0.16	0.16	0.89	0.89

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 13:50:18 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Nb94
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	2 -0.09	2 -0.14	3 0.26	3 0.26
Resuspension Rate	7 0.04	7 0.06	2 -0.40	2 -0.41
Release time of 1	9 0.01	9 0.02	9 0.00	9 0.01
Release time of 2	8 -0.02	8 -0.05	6 -0.03	6 -0.04
Release time of 3	3 -0.05	3 -0.13	8 -0.02	8 -0.03
Release time of 4	5 -0.04	5 -0.11	5 0.04	5 0.05
Release time of 5	4 0.04	4 0.12	7 0.03	7 0.04
Release time of 6	6 -0.04	6 -0.10	4 -0.06	4 -0.07
Building Exchange Rate	1 -0.35	1 -0.34	1 -0.90	1 -0.87
R-SQUARE	0.17	0.17	0.82	0.82

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 13:50:18 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Nb94
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.10	2 -0.14	3 0.32	3 0.25
Resuspension Rate	5 0.04	5 0.06	2 -0.48	2 -0.40
Release time of 1	8 0.02	8 0.05	6 0.05	6 0.05
Release time of 2	7 -0.02	6 -0.06	9 0.00	9 0.00
Release time of 3	4 -0.05	4 -0.13	8 0.01	8 0.01
Release time of 4	9 0.01	9 0.04	7 0.05	7 0.05
Release time of 5	3 -0.05	3 -0.13	4 -0.20	4 -0.19
Release time of 6	6 -0.02	7 -0.05	5 -0.11	5 -0.10
Building Exchange Rate	1 -0.31	1 -0.30	1 -0.94	1 -0.89
R-SQUARE	0.18	0.18	0.89	0.89

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 13:50:18 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Nb94
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.10	2 -0.14	3 0.20	4 0.20
Resuspension Rate	4 0.05	6 0.08	2 -0.36	2 -0.38
Release time of 1	7 0.01	7 0.04	7 0.03	7 0.04
Release time of 2	9 -0.01	9 -0.03	5 -0.06	5 -0.08
Release time of 3	6 -0.05	5 -0.13	9 0.00	9 0.00
Release time of 4	8 0.01	8 0.03	6 0.04	6 0.04
Release time of 5	5 0.05	3 0.14	8 0.00	8 0.00
Release time of 6	3 -0.05	4 -0.14	4 0.16	3 0.20
Building Exchange Rate	1 -0.35	1 -0.35	1 -0.88	1 -0.83
R-SQUARE	0.14	0.14	0.80	0.80

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Ni-59 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:27:08 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Ni59
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Ni59-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:27:08 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Ni59
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Ni59-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RFO(1, 1)	TRIANGULAR	1000 10000 100000
4	RFO(2, 1)	TRIANGULAR	1000 10000 100000
5	RFO(3, 1)	TRIANGULAR	1000 10000 100000
6	RFO(4, 1)	TRIANGULAR	1000 10000 100000
7	RFO(5, 1)	TRIANGULAR	1000 10000 100000
8	RFO(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:27:08 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Ni59
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Ni59-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	2.15E-09	9.46E-10	6.31E-10	9.49E-10	6.33E-10	2.15E-09	7.47E-09
Maximum	3.30E-09	1.33E-09	1.02E-09	1.34E-09	9.52E-10	3.39E-09	1.12E-08
Average	2.22E-09	9.82E-10	6.54E-10	9.82E-10	6.54E-10	2.22E-09	7.72E-09
Std.Dev	1.02E-10	4.27E-11	3.32E-11	3.98E-11	2.93E-11	9.71E-11	3.33E-10
* Total *							
Minimum	2.15E-09	9.46E-10	6.31E-10	9.49E-10	6.33E-10	2.15E-09	7.47E-09
Maximum	3.30E-09	1.33E-09	1.02E-09	1.34E-09	9.52E-10	3.39E-09	1.12E-08
Average	2.22E-09	9.82E-10	6.54E-10	9.82E-10	6.54E-10	2.22E-09	7.72E-09
Std.Dev	1.02E-10	4.27E-11	3.32E-11	3.98E-11	2.93E-11	9.71E-11	3.33E-10

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:27:08 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Ni59
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Ni59-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	1.77E-09	8.54E-10	5.73E-10	8.72E-10	5.91E-10	1.83E-09	6.71E-09
Maximum	3.18E-09	1.29E-09	9.75E-10	1.30E-09	8.75E-10	3.26E-09	1.08E-08
Average	2.19E-09	9.66E-10	6.44E-10	9.65E-10	6.43E-10	2.19E-09	7.59E-09

Std.Dev	9.36E-11	3.75E-11	2.91E-11	3.52E-11	2.42E-11	8.96E-11	3.01E-10
* Total *							
Minimum	1.77E-09	8.54E-10	5.73E-10	8.72E-10	5.91E-10	1.83E-09	6.71E-09
Maximum	3.18E-09	1.29E-09	9.75E-10	1.30E-09	8.75E-10	3.26E-09	1.08E-08
Average	2.19E-09	9.66E-10	6.44E-10	9.65E-10	6.43E-10	2.19E-09	7.59E-09
Std.Dev	9.36E-11	3.75E-11	2.91E-11	3.52E-11	2.42E-11	8.96E-11	3.01E-10

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:27:08 Page: 29 **
Title : Humboldt Bay sensitivity analysis_Ni59
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Ni59-1.bld
Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum	1.77E-09	7.81E-10	5.19E-10	7.81E-10	5.23E-10	1.78E-09	6.10E-09
Average	8.62E-10	3.80E-10	2.53E-10	3.81E-10	2.53E-10	8.64E-10	2.99E-09
Std.Dev	6.33E-10	2.79E-10	1.86E-10	2.79E-10	1.86E-10	6.32E-10	2.07E-09
* Total *							
Minimum	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum	1.77E-09	7.81E-10	5.19E-10	7.81E-10	5.23E-10	1.78E-09	6.10E-09
Average	8.62E-10	3.80E-10	2.53E-10	3.81E-10	2.53E-10	8.64E-10	2.99E-09
Std.Dev	6.33E-10	2.79E-10	1.86E-10	2.79E-10	1.86E-10	6.32E-10	2.07E-09

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:27:08 Page: 81 **
Title : Humboldt Bay sensitivity analysis_Ni59
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total Coefficient = Repetition =		at Time: 1						
		PCC 1	SRC 1	PRCC 1	SRRC 1			
Description of Probabilistic Variable		Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff			
Deposition Velocity	2	-0.09	4	-0.13	3	0.28	3	0.18
Resuspension Rate	3	0.07	5	0.10	2	-0.39	2	-0.27
Release time of 1	7	-0.02	7	-0.05	5	-0.05	5	-0.04
Release time of 2	8	-0.02	8	-0.04	8	-0.02	8	-0.02
Release time of 3	4	-0.06	2	-0.15	7	0.03	7	0.02
Release time of 4	9	-0.01	9	-0.03	9	-0.02	9	-0.02
Release time of 5	6	0.04	6	0.10	6	-0.03	6	-0.03
Release time of 6	5	-0.05	3	-0.13	4	-0.18	4	-0.16
Building Exchange Rate	1	-0.35	1	-0.33	1	-0.95	1	-0.92
R-SQUARE		0.21	0.21	0.91	0.91			

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:27:08 Page: 82 **
Title : Humboldt Bay sensitivity analysis_Ni59
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1		PCC 1		SRC 1		PRCC 1		SRRC 1	
Coefficient = Repetition =									
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity		2	-0.08	5	-0.12	3	0.27	4	0.18
Resuspension Rate		3	0.08	6	0.12	2	-0.37	2	-0.27
Release time of 1		4	-0.07	2	-0.18	4	-0.27	3	-0.23
Release time of 2		9	0.00	9	-0.01	9	0.01	9	0.01
Release time of 3		5	-0.06	3	-0.14	6	0.05	6	0.04
Release time of 4		8	-0.01	8	-0.02	7	0.03	7	0.02
Release time of 5		6	0.05	4	0.13	8	0.02	8	0.02
Release time of 6		7	-0.03	7	-0.07	5	-0.11	5	-0.09
Building Exchange Rate		1	-0.32	1	-0.31	1	-0.95	1	-0.91
R-SQUARE		0.18		0.18		0.91		0.91	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:27:08 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Ni59
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
	Sig	Coeff	Sig	Coeff
Deposition Velocity	2	-0.08	4	-0.12
Resuspension Rate	5	0.03	7	0.05
Release time of 1	9	0.00	9	0.01
Release time of 2	3	-0.07	2	-0.19
Release time of 3	4	-0.05	3	-0.12
Release time of 4	8	-0.01	8	-0.01
Release time of 5	7	0.03	6	0.06
Release time of 6	6	-0.03	5	-0.07
Building Exchange Rate	1	-0.35	1	-0.33
R-SQUARE	0.21		0.21	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:27:08 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Ni59
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
	Sig	Coeff	Sig	Coeff
Deposition Velocity	3	-0.08	3	-0.12
Resuspension Rate	4	0.05	6	0.08
Release time of 1	7	-0.01	7	-0.03
Release time of 2	8	-0.01	8	-0.02
Release time of 3	2	-0.09	2	-0.23
Release time of 4	9	0.00	9	0.00
Release time of 5	6	0.03	5	0.09
Release time of 6	5	-0.04	4	-0.09
Building Exchange Rate	1	-0.31	1	-0.30
R-SQUARE	0.17		0.17	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:27:08 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Ni59
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
	Sig	Coeff	Sig	Coeff
Deposition Velocity	2	-0.09	3	-0.13
Resuspension Rate	4	0.05	7	0.07
Release time of 1	9	0.00	9	0.01
Release time of 2	8	-0.02	8	-0.04
Release time of 3	5	-0.05	4	-0.12
Release time of 4	3	-0.08	2	-0.20
Release time of 5	6	0.04	5	0.11
Release time of 6	7	-0.04	6	-0.09
Building Exchange Rate	1	-0.36	1	-0.34
R-SQUARE	0.22		0.22	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:27:08 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Ni59
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
	Sig	Coeff	Sig	Coeff
Deposition Velocity	2	-0.09	4	-0.14
Resuspension Rate	3	0.06	5	0.08
Release time of 1	8	0.01	8	0.04
Release time of 2	7	-0.02	7	-0.04
Release time of 3	4	-0.06	3	-0.14
Release time of 4	9	0.01	9	0.02
Release time of 5	5	-0.06	2	-0.14
Release time of 6	6	-0.02	6	-0.05
Building Exchange Rate	1	-0.34	1	-0.32
R-SQUARE		0.20		0.20

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:27:08 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Ni59
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
	Sig	Coeff	Sig	Coeff
Deposition Velocity	3	-0.10	4	-0.14
Resuspension Rate	4	0.08	6	0.12
Release time of 1	9	0.00	9	0.00
Release time of 2	7	0.00	7	-0.01
Release time of 3	5	-0.06	3	-0.15
Release time of 4	8	0.00	8	0.00
Release time of 5	6	0.05	5	0.13
Release time of 6	2	-0.11	2	-0.28
Building Exchange Rate	1	-0.35	1	-0.33
R-SQUARE		0.20		0.20

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Ni-63 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:35:03 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Ni63
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Ni63-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:35:03 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Ni63
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Ni63-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:35:03 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Ni63
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Ni63-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	5.88E-09	2.59E-09	1.73E-09	2.59E-09	1.73E-09	5.86E-09	2.04E-08
Maximum	8.55E-09	3.49E-09	2.62E-09	3.50E-09	2.22E-09	8.75E-09	2.91E-08
Average	6.06E-09	2.67E-09	1.78E-09	2.67E-09	1.78E-09	6.06E-09	2.10E-08
Std.Dev	2.04E-10	8.52E-11	6.79E-11	8.08E-11	5.48E-11	2.05E-10	6.78E-10
* Total *							
Minimum	5.88E-09	2.59E-09	1.73E-09	2.59E-09	1.73E-09	5.86E-09	2.04E-08
Maximum	8.55E-09	3.49E-09	2.62E-09	3.50E-09	2.22E-09	8.75E-09	2.91E-08
Average	6.06E-09	2.67E-09	1.78E-09	2.67E-09	1.78E-09	6.06E-09	2.10E-08
Std.Dev	2.04E-10	8.52E-11	6.79E-11	8.08E-11	5.48E-11	2.05E-10	6.78E-10

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:35:03 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Ni63
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Ni63-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	4.72E-09	2.30E-09	1.55E-09	2.35E-09	1.60E-09	4.88E-09	1.81E-08
Maximum	8.14E-09	3.35E-09	2.49E-09	3.36E-09	2.07E-09	8.32E-09	2.77E-08
Average	5.91E-09	2.61E-09	1.74E-09	2.61E-09	1.74E-09	5.91E-09	2.05E-08
Std.Dev	1.94E-10	7.55E-11	5.96E-11	7.27E-11	4.45E-11	1.93E-10	6.23E-10

* Total *							
Minimum	4.72E-09	2.30E-09	1.55E-09	2.35E-09	1.60E-09	4.88E-09	1.81E-08
Maximum	8.14E-09	3.35E-09	2.49E-09	3.36E-09	2.07E-09	8.32E-09	2.77E-08
Average	5.91E-09	2.61E-09	1.74E-09	2.61E-09	1.74E-09	5.91E-09	2.05E-08
Std.Dev	1.94E-10	7.55E-11	5.96E-11	7.27E-11	4.45E-11	1.93E-10	6.23E-10

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:35:03 Page: 29 **
 Title : Humboldt Bay sensitivity analysis_Ni63
 Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Ni63-1.bld
 Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

	Receptor	1	Source	2	3	4	5	6	Total
*** 1***									
Minimum	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum	3.38E-09	1.49E-09	9.91E-10	1.49E-09	9.98E-10	3.38E-09	1.16E-08		
Average	1.64E-09	7.23E-10	4.81E-10	7.23E-10	4.81E-10	1.64E-09	5.68E-09		
Std.Dev	1.21E-09	5.33E-10	3.55E-10	5.33E-10	3.55E-10	1.21E-09	3.95E-09		

* Total *							
Minimum	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Maximum	3.38E-09	1.49E-09	9.91E-10	1.49E-09	9.98E-10	3.38E-09	1.16E-08
Average	1.64E-09	7.23E-10	4.81E-10	7.23E-10	4.81E-10	1.64E-09	5.68E-09
Std.Dev	1.21E-09	5.33E-10	3.55E-10	5.33E-10	3.55E-10	1.21E-09	3.95E-09

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:35:03 Page: 81 **
 Title : Humboldt Bay sensitivity analysis_Ni63
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total
 Coefficient =
 Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.08	6 -0.11	3 0.26	3 0.17
Resuspension Rate	3 0.08	5 0.11	2 -0.30	2 -0.20
Release time of 1	7 -0.02	7 -0.06	8 -0.01	8 -0.01
Release time of 2	9 -0.01	9 -0.02	6 -0.02	6 -0.02
Release time of 3	4 -0.06	2 -0.16	7 0.02	7 0.01
Release time of 4	8 -0.02	8 -0.05	5 -0.06	5 -0.05
Release time of 5	6 0.05	4 0.12	9 -0.01	9 0.00
Release time of 6	5 -0.05	3 -0.12	4 -0.14	4 -0.11
Building Exchange Rate	1 -0.36	1 -0.34	1 -0.96	1 -0.94
R-SQUARE	0.19	0.19	0.92	0.92

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:35:03 Page: 82 **
 Title : Humboldt Bay sensitivity analysis_Ni63
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1
 Coefficient =
 Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	6 -0.10	3 0.26	3 0.18
Resuspension Rate	2 0.08	5 0.13	2 -0.28	2 -0.19
Release time of 1	4 -0.07	2 -0.16	4 -0.16	4 -0.13
Release time of 2	9 0.00	9 0.01	9 0.01	9 0.01
Release time of 3	5 -0.06	4 -0.15	8 0.01	8 0.01
Release time of 4	8 -0.01	8 -0.04	7 -0.02	7 -0.01
Release time of 5	6 0.06	3 0.15	6 0.02	6 0.02
Release time of 6	7 -0.03	7 -0.07	5 -0.07	5 -0.06
Building Exchange Rate	1 -0.33	1 -0.32	1 -0.95	1 -0.94
R-SQUARE	0.18	0.18	0.91	0.91

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:35:03 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Ni63
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.07	4 -0.10	3 0.29	3 0.19
Resuspension Rate	5 0.04	6 0.06	2 -0.33	2 -0.22
Release time of 1	9 0.00	9 0.00	7 0.05	7 0.04
Release time of 2	3 -0.06	2 -0.16	4 -0.21	4 -0.17
Release time of 3	4 -0.05	3 -0.14	6 0.06	5 0.05
Release time of 4	8 -0.01	8 -0.03	5 -0.07	6 -0.05
Release time of 5	6 0.03	5 0.09	9 0.00	9 0.00
Release time of 6	7 -0.02	7 -0.05	8 -0.04	8 -0.03
Building Exchange Rate	1 -0.36	1 -0.35	1 -0.95	1 -0.93
R-SQUARE	0.20	0.20	0.91	0.91

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:35:03 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Ni63
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	4 -0.10	3 0.27	3 0.17
Resuspension Rate	4 0.06	5 0.08	2 -0.30	2 -0.20
Release time of 1	7 -0.01	7 -0.03	6 0.03	6 0.02
Release time of 2	9 0.00	9 -0.01	8 0.02	8 0.02
Release time of 3	2 -0.09	2 -0.23	4 -0.14	4 -0.12
Release time of 4	8 -0.01	8 -0.02	7 -0.03	7 -0.02
Release time of 5	5 0.04	3 0.11	9 0.00	9 0.00
Release time of 6	6 -0.03	6 -0.08	5 -0.09	5 -0.07
Building Exchange Rate	1 -0.32	1 -0.31	1 -0.96	1 -0.94
R-SQUARE	0.16	0.16	0.92	0.92

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:35:03 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Ni63
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	5 -0.10	3 0.25	4 0.17
Resuspension Rate	4 0.05	6 0.08	2 -0.29	2 -0.20
Release time of 1	9 0.00	9 0.00	6 0.07	6 0.05
Release time of 2	8 -0.01	8 -0.02	8 -0.02	8 -0.02
Release time of 3	5 -0.05	4 -0.13	7 0.03	7 0.03
Release time of 4	2 -0.08	2 -0.20	4 -0.22	3 -0.18
Release time of 5	6 0.05	3 0.13	9 0.01	9 0.01
Release time of 6	7 -0.03	7 -0.07	5 -0.07	5 -0.06
Building Exchange Rate	1 -0.37	1 -0.36	1 -0.95	1 -0.93
R-SQUARE	0.21	0.21	0.91	0.91

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:35:03 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Ni63
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	2 -0.08	3 -0.12	3 0.25	3 0.17
Resuspension Rate	3 0.07	5 0.10	2 -0.29	2 -0.20
Release time of 1	7 0.01	7 0.03	6 0.07	6 0.06
Release time of 2	8 -0.01	8 -0.02	9 0.01	9 0.01
Release time of 3	4 -0.06	2 -0.16	8 0.01	8 0.01
Release time of 4	9 0.00	9 -0.01	7 -0.02	7 -0.01
Release time of 5	5 -0.04	4 -0.11	4 -0.18	4 -0.16
Release time of 6	6 -0.02	6 -0.05	5 -0.09	5 -0.07
Building Exchange Rate	1 -0.37	1 -0.35	1 -0.95	1 -0.93
R-SQUARE	0.21	0.21	0.91	0.91

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:35:03 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Ni63
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	4 -0.08	6 -0.12	3 0.26	4 0.17
Resuspension Rate	3 0.09	5 0.13	2 -0.31	3 -0.21
Release time of 1	7 -0.01	7 -0.02	5 0.04	5 0.03
Release time of 2	9 0.00	9 0.01	6 0.03	6 0.03
Release time of 3	5 -0.06	3 -0.15	8 0.02	8 0.02
Release time of 4	8 -0.01	8 -0.01	7 -0.03	7 -0.02
Release time of 5	6 0.06	4 0.14	9 -0.02	9 -0.02
Release time of 6	2 -0.09	2 -0.24	4 -0.25	2 -0.21
Building Exchange Rate	1 -0.34	1 -0.33	1 -0.95	1 -0.93
R-SQUARE	0.18	0.18	0.91	0.91

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Np-237 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 15:25:48 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Np237
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Np237-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 15:25:48 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Np237
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Np237-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 15:25:48 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Np237
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Np237-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	4.83E-05	2.08E-05	1.38E-05	2.08E-05	1.38E-05	4.78E-05	1.65E-04
Maximum	2.82E-04	9.78E-05	9.24E-05	9.94E-05	5.83E-05	3.00E-04	9.20E-04
Average	5.76E-05	2.50E-05	1.66E-05	2.49E-05	1.65E-05	5.71E-05	1.98E-04
Std.Dev	1.89E-05	8.03E-06	6.33E-06	7.65E-06	5.30E-06	1.90E-05	6.29E-05
* Total *							
Minimum	4.83E-05	2.08E-05	1.38E-05	2.08E-05	1.38E-05	4.78E-05	1.65E-04
Maximum	2.82E-04	9.78E-05	9.24E-05	9.94E-05	5.83E-05	3.00E-04	9.20E-04
Average	5.76E-05	2.50E-05	1.66E-05	2.49E-05	1.65E-05	5.71E-05	1.98E-04
Std.Dev	1.89E-05	8.03E-06	6.33E-06	7.65E-06	5.30E-06	1.90E-05	6.29E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 15:25:48 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Np237
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Np237-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	4.74E-05	2.05E-05	1.34E-05	2.03E-05	1.35E-05	4.65E-05	1.62E-04
Maximum	2.79E-04	9.70E-05	9.15E-05	9.85E-05	5.66E-05	2.98E-04	9.12E-04
Average	5.68E-05	2.46E-05	1.64E-05	2.46E-05	1.63E-05	5.63E-05	1.95E-04
Std.Dev	1.84E-05	7.80E-06	6.19E-06	7.43E-06	5.12E-06	1.86E-05	6.14E-05

* Total *							
Minimum	4.74E-05	2.05E-05	1.34E-05	2.03E-05	1.35E-05	4.65E-05	1.62E-04
Maximum	2.79E-04	9.70E-05	9.15E-05	9.85E-05	5.66E-05	2.98E-04	9.12E-04
Average	5.68E-05	2.46E-05	1.64E-05	2.46E-05	1.63E-05	5.63E-05	1.95E-04
Std.Dev	1.84E-05	7.80E-06	6.19E-06	7.43E-06	5.12E-06	1.86E-05	6.14E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 15:25:48 Page: 29 **
Title : Humboldt Bay sensitivity analysis_Np237
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Np237-1.bld
Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source	2	3	4	5	6	Total
*** 1***								
Minimum	1.73E-06	3.31E-07	1.34E-07	3.31E-07	1.35E-07	1.27E-06	3.93E-06	
Maximum	5.33E-05	2.47E-05	1.76E-05	2.54E-05	1.56E-05	5.80E-05	1.84E-04	
Average	2.34E-05	9.93E-06	6.53E-06	9.96E-06	6.48E-06	2.33E-05	7.96E-05	
Std.Dev	1.49E-05	6.57E-06	4.41E-06	6.56E-06	4.39E-06	1.50E-05	4.85E-05	

* Total *							
Minimum	1.73E-06	3.31E-07	1.34E-07	3.31E-07	1.35E-07	1.27E-06	3.93E-06
Maximum	5.33E-05	2.47E-05	1.76E-05	2.54E-05	1.56E-05	5.80E-05	1.84E-04
Average	2.34E-05	9.93E-06	6.53E-06	9.96E-06	6.48E-06	2.33E-05	7.96E-05
Std.Dev	1.49E-05	6.57E-06	4.41E-06	6.56E-06	4.39E-06	1.50E-05	4.85E-05

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 15:25:48 Page: 81 **
Title : Humboldt Bay sensitivity analysis_Np237
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.08	5 -0.11	9 0.03	9 0.01
Resuspension Rate	2 0.09	4 0.13	7 -0.08	7 -0.03
Release time of 1	6 -0.04	6 -0.10	3 -0.30	3 -0.18
Release time of 2	9 -0.01	9 -0.03	5 -0.12	5 -0.07
Release time of 3	4 -0.07	2 -0.16	8 -0.05	8 -0.03
Release time of 4	8 -0.02	8 -0.06	4 -0.16	4 -0.09
Release time of 5	7 0.03	7 0.09	6 -0.08	6 -0.05
Release time of 6	5 -0.06	3 -0.14	2 -0.30	2 -0.18
Building Exchange Rate	1 -0.33	1 -0.31	1 -0.97	1 -0.79
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 15:25:48 Page: 82 **
Title : Humboldt Bay sensitivity analysis_Np237
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.07	6 -0.10	5 0.05	6 0.02
Resuspension Rate	3 0.10	4 0.15	3 -0.09	3 -0.04
Release time of 1	2 -0.11	2 -0.26	2 -0.71	2 -0.59
Release time of 2	9 0.00	9 0.00	9 -0.01	9 0.00
Release time of 3	5 -0.06	3 -0.15	4 0.05	4 0.03
Release time of 4	8 -0.02	8 -0.04	6 -0.04	5 -0.02
Release time of 5	6 0.05	5 0.14	8 0.03	8 0.02
Release time of 6	7 -0.02	7 -0.06	7 -0.04	7 -0.02
Building Exchange Rate	1 -0.31	1 -0.29	1 -0.96	1 -0.78
R-SQUARE	0.23	0.23	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 15:25:48 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Np237
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	4 -0.09	5 0.03	7 0.01
Resuspension Rate	5 0.04	6 0.06	3 -0.08	3 -0.04
Release time of 1	9 -0.01	9 -0.02	8 -0.02	8 -0.01
Release time of 2	2 -0.10	2 -0.25	2 -0.70	2 -0.58
Release time of 3	4 -0.05	3 -0.12	4 0.04	4 0.02
Release time of 4	8 -0.01	8 -0.03	6 -0.03	5 -0.02
Release time of 5	6 0.03	5 0.06	9 0.02	9 0.01
Release time of 6	7 -0.02	7 -0.05	7 -0.03	6 -0.02
Building Exchange Rate	1 -0.33	1 -0.31	1 -0.97	1 -0.78
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 15:25:48 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Np237
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	3 -0.10	8 -0.01	8 0.00
Resuspension Rate	4 0.06	4 0.09	3 -0.05	3 -0.02
Release time of 1	7 -0.02	7 -0.05	9 -0.01	9 0.00
Release time of 2	9 0.00	9 0.00	6 0.02	6 0.01
Release time of 3	2 -0.12	1 -0.30	2 -0.69	2 -0.57
Release time of 4	8 -0.01	8 -0.01	4 -0.02	5 -0.01
Release time of 5	5 0.03	5 0.09	7 0.01	7 0.01
Release time of 6	6 -0.03	6 -0.08	5 -0.02	4 -0.01
Building Exchange Rate	1 -0.29	2 -0.27	1 -0.97	1 -0.79
R-SQUARE	0.20	0.20	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 15:25:48 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Np237
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	5 -0.10	9 -0.01	9 0.00
Resuspension Rate	4 0.06	6 0.09	6 -0.04	7 -0.02
Release time of 1	8 -0.01	8 -0.02	8 -0.02	8 -0.01
Release time of 2	9 -0.01	9 -0.01	5 0.04	5 0.02
Release time of 3	5 -0.05	3 -0.11	3 0.06	3 0.04
Release time of 4	2 -0.12	2 -0.29	2 -0.71	2 -0.59
Release time of 5	6 0.04	4 0.10	7 -0.03	6 -0.02
Release time of 6	7 -0.03	7 -0.07	4 -0.04	4 -0.03
Building Exchange Rate	1 -0.34	1 -0.32	1 -0.97	1 -0.79
R-SQUARE	0.26	0.26	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 15:25:48 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Np237
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.09	4 -0.12	9 0.01	9 0.00
Resuspension Rate	4 0.08	5 0.12	4 -0.05	5 -0.02
Release time of 1	8 0.01	8 0.02	8 0.01	8 0.01
Release time of 2	7 -0.01	7 -0.02	6 0.02	6 0.01
Release time of 3	5 -0.06	3 -0.15	7 0.02	7 0.01
Release time of 4	9 0.00	9 -0.01	3 -0.07	3 -0.04
Release time of 5	3 -0.09	2 -0.21	2 -0.69	2 -0.55
Release time of 6	6 -0.02	6 -0.04	5 -0.05	4 -0.03
Building Exchange Rate	1 -0.33	1 -0.30	1 -0.97	1 -0.79
R-SQUARE	0.25	0.25	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 15:25:48 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Np237
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.08	6 -0.11	4 0.07	4 0.03
Resuspension Rate	3 0.10	4 0.15	3 -0.11	3 -0.05
Release time of 1	7 -0.01	7 -0.03	7 -0.02	7 -0.01
Release time of 2	9 0.01	9 0.01	8 0.01	8 0.01
Release time of 3	5 -0.06	3 -0.15	6 0.04	6 0.03
Release time of 4	8 -0.01	8 -0.02	5 -0.05	5 -0.03
Release time of 5	6 0.05	5 0.12	9 0.00	9 0.00
Release time of 6	2 -0.12	1 -0.31	2 -0.69	2 -0.57
Building Exchange Rate	1 -0.32	2 -0.29	1 -0.97	1 -0.79
R-SQUARE	0.23	0.23	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Pu-238 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 23:11:12 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Pu238
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu238-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 23:11:12 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Pu238
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu238-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 23:11:12 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Pu238
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu238-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	3.32E-05	1.47E-05	9.78E-06	1.47E-05	9.77E-06	3.33E-05	1.15E-04
Maximum	2.02E-04	7.03E-05	6.66E-05	7.15E-05	4.20E-05	2.16E-04	6.61E-04
Average	3.98E-05	1.76E-05	1.18E-05	1.76E-05	1.17E-05	3.99E-05	1.38E-04
Std.Dev	1.34E-05	5.70E-06	4.51E-06	5.44E-06	3.73E-06	1.36E-05	4.48E-05
* Total *							
Minimum	3.32E-05	1.47E-05	9.78E-06	1.47E-05	9.77E-06	3.33E-05	1.15E-04
Maximum	2.02E-04	7.03E-05	6.66E-05	7.15E-05	4.20E-05	2.16E-04	6.61E-04
Average	3.98E-05	1.76E-05	1.18E-05	1.76E-05	1.17E-05	3.99E-05	1.38E-04
Std.Dev	1.34E-05	5.70E-06	4.51E-06	5.44E-06	3.73E-06	1.36E-05	4.48E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 23:11:12 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Pu238
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu238-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	3.24E-05	1.43E-05	9.42E-06	1.42E-05	9.49E-06	3.21E-05	1.12E-04
Maximum	1.99E-04	6.92E-05	6.54E-05	7.03E-05	3.98E-05	2.12E-04	6.50E-04
Average	3.90E-05	1.72E-05	1.15E-05	1.72E-05	1.15E-05	3.90E-05	1.35E-04
Std.Dev	1.30E-05	5.49E-06	4.37E-06	5.24E-06	3.57E-06	1.32E-05	4.34E-05

* Total *							
Minimum	3.24E-05	1.43E-05	9.42E-06	1.42E-05	9.49E-06	3.21E-05	1.12E-04
Maximum	1.99E-04	6.92E-05	6.54E-05	7.03E-05	3.98E-05	2.12E-04	6.50E-04
Average	3.90E-05	1.72E-05	1.15E-05	1.72E-05	1.15E-05	3.90E-05	1.35E-04
Std.Dev	1.30E-05	5.49E-06	4.37E-06	5.24E-06	3.57E-06	1.32E-05	4.34E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 23:11:12 Page: 29 **
 Title : Humboldt Bay sensitivity analysis_Pu238
 Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu238-1.bld
 Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source	3	4	5	6	Total
*** 1***		2					
Minimum	2.44E-09	1.86E-09	6.50E-10	1.86E-09	6.53E-10	2.44E-09	9.89E-09
Maximum	2.49E-05	1.18E-05	8.50E-06	1.22E-05	7.51E-06	2.76E-05	8.67E-05
Average	1.04E-05	4.63E-06	3.09E-06	4.64E-06	3.06E-06	1.06E-05	3.64E-05
Std.Dev	7.15E-06	3.17E-06	2.13E-06	3.16E-06	2.11E-06	7.22E-06	2.34E-05

* Total *							
Minimum	2.44E-09	1.86E-09	6.50E-10	1.86E-09	6.53E-10	2.44E-09	9.89E-09
Maximum	2.49E-05	1.18E-05	8.50E-06	1.22E-05	7.51E-06	2.76E-05	8.67E-05
Average	1.04E-05	4.63E-06	3.09E-06	4.64E-06	3.06E-06	1.06E-05	3.64E-05
Std.Dev	7.15E-06	3.17E-06	2.13E-06	3.16E-06	2.11E-06	7.22E-06	2.34E-05

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 23:11:12 Page: 81 **
 Title : Humboldt Bay sensitivity analysis_Pu238
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	3	-0.07	5	-0.10
Resuspension Rate	2	0.09	4	0.13
Release time of 1	6	-0.04	6	-0.10
Release time of 2	9	-0.01	9	-0.03
Release time of 3	4	-0.07	2	-0.16
Release time of 4	8	-0.02	8	-0.06
Release time of 5	7	0.04	7	0.09
Release time of 6	5	-0.06	3	-0.13
Building Exchange Rate	1	-0.33	1	-0.30
R-SQUARE	0.24		0.24	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 23:11:12 Page: 82 **
 Title : Humboldt Bay sensitivity analysis_Pu238
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	4	-0.07	6	-0.10
Resuspension Rate	3	0.10	4	0.15
Release time of 1	2	-0.11	2	-0.26
Release time of 2	9	0.00	9	0.00
Release time of 3	5	-0.06	3	-0.15
Release time of 4	8	-0.02	8	-0.05
Release time of 5	6	0.05	5	0.14
Release time of 6	7	-0.02	7	-0.06
Building Exchange Rate	1	-0.31	1	-0.29
R-SQUARE	0.23		0.23	

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 23:11:12 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Pu238
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.06	4 -0.09	9 0.00	9 0.00
Resuspension Rate	5 0.04	6 0.06	5 -0.02	8 -0.01
Release time of 1	9 -0.01	9 -0.02	6 -0.02	6 -0.01
Release time of 2	2 -0.10	2 -0.25	2 -0.70	2 -0.58
Release time of 3	4 -0.05	3 -0.12	4 0.02	4 0.01
Release time of 4	8 -0.01	8 -0.03	3 -0.03	3 -0.02
Release time of 5	6 0.03	5 0.07	7 0.02	5 0.01
Release time of 6	7 -0.02	7 -0.05	8 -0.02	7 -0.01
Building Exchange Rate	1 -0.33	1 -0.30	1 -0.97	1 -0.78
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 23:11:12 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Pu238
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	3 -0.10	3 -0.05	3 -0.02
Resuspension Rate	4 0.06	4 0.09	7 0.02	7 0.01
Release time of 1	7 -0.02	7 -0.05	9 -0.01	9 0.00
Release time of 2	9 0.00	9 0.00	8 0.01	8 0.01
Release time of 3	2 -0.12	1 -0.30	2 -0.69	2 -0.57
Release time of 4	8 -0.01	8 -0.01	4 -0.03	4 -0.02
Release time of 5	5 0.03	5 0.09	5 0.02	5 0.01
Release time of 6	6 -0.03	6 -0.08	6 -0.02	6 -0.01
Building Exchange Rate	1 -0.29	2 -0.27	1 -0.97	1 -0.79
R-SQUARE	0.20	0.20	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 23:11:12 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Pu238
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	5 -0.09	4 -0.05	5 -0.02
Resuspension Rate	4 0.06	6 0.09	8 0.02	9 0.01
Release time of 1	8 -0.01	8 -0.03	9 -0.02	8 -0.01
Release time of 2	9 0.00	9 -0.01	5 0.04	4 0.02
Release time of 3	5 -0.05	3 -0.11	3 0.05	3 0.03
Release time of 4	2 -0.12	2 -0.30	2 -0.72	2 -0.59
Release time of 5	6 0.04	4 0.10	7 -0.03	7 -0.02
Release time of 6	7 -0.03	7 -0.06	6 -0.03	6 -0.02
Building Exchange Rate	1 -0.34	1 -0.31	1 -0.97	1 -0.79
R-SQUARE	0.25	0.25	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 23:11:12 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Pu238
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient =				
Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.08	5 -0.12	6 -0.02	6 -0.01
Resuspension Rate	2 0.09	4 0.12	9 0.01	9 0.00
Release time of 1	7 0.01	8 0.02	8 0.01	8 0.00
Release time of 2	8 -0.01	7 -0.02	5 0.02	5 0.01
Release time of 3	5 -0.06	3 -0.15	7 0.01	7 0.01
Release time of 4	9 0.00	9 -0.01	3 -0.07	3 -0.04
Release time of 5	3 -0.09	2 -0.21	2 -0.69	2 -0.55
Release time of 6	6 -0.02	6 -0.04	4 -0.04	4 -0.02
Building Exchange Rate	1 -0.33	1 -0.31	1 -0.97	1 -0.79
R-SQUARE	0.26	0.26	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 23:11:12 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Pu238
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient =				
Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.08	6 -0.11	7 0.02	7 0.01
Resuspension Rate	3 0.10	3 0.15	4 -0.04	4 -0.02
Release time of 1	7 -0.01	7 -0.04	6 -0.03	6 -0.02
Release time of 2	9 0.01	9 0.02	8 0.01	8 0.01
Release time of 3	5 -0.06	4 -0.15	5 0.03	5 0.02
Release time of 4	8 -0.01	8 -0.02	3 -0.05	3 -0.03
Release time of 5	6 0.05	5 0.12	9 0.01	9 0.00
Release time of 6	2 -0.12	1 -0.30	2 -0.69	2 -0.56
Building Exchange Rate	1 -0.31	2 -0.29	1 -0.97	1 -0.79
R-SQUARE	0.23	0.23	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Pu-239 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 20:37:27 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Pu239
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu239-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 20:37:27 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Pu239
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu239-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 20:37:27 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Pu239
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu239-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	3.69E-05	1.63E-05	1.09E-05	1.63E-05	1.08E-05	3.69E-05	1.28E-04
Maximum	2.23E-04	7.75E-05	7.33E-05	7.87E-05	4.62E-05	2.38E-04	7.28E-04
Average	4.43E-05	1.96E-05	1.31E-05	1.95E-05	1.31E-05	4.43E-05	1.54E-04
Std.Dev	1.50E-05	6.38E-06	5.03E-06	6.08E-06	4.21E-06	1.51E-05	4.99E-05
* Total *							
Minimum	3.69E-05	1.63E-05	1.09E-05	1.63E-05	1.08E-05	3.69E-05	1.28E-04
Maximum	2.23E-04	7.75E-05	7.33E-05	7.87E-05	4.62E-05	2.38E-04	7.28E-04
Average	4.43E-05	1.96E-05	1.31E-05	1.95E-05	1.31E-05	4.43E-05	1.54E-04
Std.Dev	1.50E-05	6.38E-06	5.03E-06	6.08E-06	4.21E-06	1.51E-05	4.99E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 20:37:27 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Pu239
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu239-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	3.63E-05	1.61E-05	1.05E-05	1.59E-05	1.06E-05	3.59E-05	1.25E-04
Maximum	2.20E-04	7.68E-05	7.26E-05	7.80E-05	4.48E-05	2.35E-04	7.21E-04
Average	4.37E-05	1.93E-05	1.29E-05	1.93E-05	1.29E-05	4.37E-05	1.52E-04
Std.Dev	1.46E-05	6.20E-06	4.91E-06	5.90E-06	4.06E-06	1.48E-05	4.88E-05

* Total *							
Minimum	3.63E-05	1.61E-05	1.05E-05	1.59E-05	1.06E-05	3.59E-05	1.25E-04
Maximum	2.20E-04	7.68E-05	7.26E-05	7.80E-05	4.48E-05	2.35E-04	7.21E-04
Average	4.37E-05	1.93E-05	1.29E-05	1.93E-05	1.29E-05	4.37E-05	1.52E-04
Std.Dev	1.46E-05	6.20E-06	4.91E-06	5.90E-06	4.06E-06	1.48E-05	4.88E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 20:37:27 Page: 29 **
 Title : Humboldt Bay sensitivity analysis_Pu239
 Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu239-1.bld
 Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3							
Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	7.09E-09	9.59E-10	2.53E-10	9.59E-10	2.55E-10	5.43E-09	1.49E-08
Maximum	4.08E-05	1.93E-05	1.39E-05	1.99E-05	1.23E-05	4.50E-05	1.43E-04
Average	1.72E-05	7.62E-06	5.08E-06	7.64E-06	5.04E-06	1.74E-05	6.00E-05
Std.Dev	1.18E-05	5.22E-06	3.50E-06	5.21E-06	3.49E-06	1.19E-05	3.85E-05
* Total *							
Minimum	7.09E-09	9.59E-10	2.53E-10	9.59E-10	2.55E-10	5.43E-09	1.49E-08
Maximum	4.08E-05	1.93E-05	1.39E-05	1.99E-05	1.23E-05	4.50E-05	1.43E-04
Average	1.72E-05	7.62E-06	5.08E-06	7.64E-06	5.04E-06	1.74E-05	6.00E-05
Std.Dev	1.18E-05	5.22E-06	3.50E-06	5.21E-06	3.49E-06	1.19E-05	3.85E-05

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 20:37:27 Page: 81 **
 Title : Humboldt Bay sensitivity analysis_Pu239
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
Deposition Velocity	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Resuspension Rate	3 -0.08	5 -0.11	9 0.03	9 0.01
Release time of 1	2 0.09	4 0.13	7 -0.08	7 -0.03
Release time of 2	6 -0.04	6 -0.10	3 -0.30	3 -0.18
Release time of 3	9 -0.01	9 -0.03	5 -0.12	5 -0.07
Release time of 4	4 -0.07	2 -0.16	8 -0.05	8 -0.03
Release time of 5	8 -0.02	8 -0.06	4 -0.16	4 -0.09
Release time of 6	7 0.03	7 0.09	6 -0.08	6 -0.05
Building Exchange Rate	5 -0.06	3 -0.14	2 -0.30	2 -0.18
	1 -0.33	1 -0.31	1 -0.97	1 -0.79
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 20:37:27 Page: 82 **
 Title : Humboldt Bay sensitivity analysis_Pu239
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
Deposition Velocity	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Resuspension Rate	4 -0.07	6 -0.10	5 0.04	6 0.02
Release time of 1	3 0.10	4 0.15	3 -0.09	3 -0.04
Release time of 2	2 -0.11	2 -0.26	2 -0.71	2 -0.59
Release time of 3	9 0.00	9 0.00	9 -0.01	9 0.00
Release time of 4	5 -0.06	3 -0.15	4 0.05	4 0.03
Release time of 5	8 -0.02	8 -0.04	6 -0.04	5 -0.02
Release time of 6	6 0.05	5 0.14	8 0.03	8 0.02
Building Exchange Rate	7 -0.02	7 -0.06	7 -0.03	7 -0.02
	1 -0.31	1 -0.29	1 -0.96	1 -0.78
R-SQUARE	0.23	0.23	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 20:37:27 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Pu239
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	4 -0.09	5 0.03	7 0.01
Resuspension Rate	5 0.04	6 0.06	3 -0.08	3 -0.04
Release time of 1	9 -0.01	9 -0.02	8 -0.02	8 -0.01
Release time of 2	2 -0.10	2 -0.25	2 -0.70	2 -0.58
Release time of 3	4 -0.05	3 -0.12	4 0.04	4 0.02
Release time of 4	8 -0.01	8 -0.03	6 -0.03	5 -0.02
Release time of 5	6 0.03	5 0.06	9 0.02	9 0.01
Release time of 6	7 -0.02	7 -0.05	7 -0.03	6 -0.02
Building Exchange Rate	1 -0.33	1 -0.31	1 -0.97	1 -0.78
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 20:37:27 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Pu239
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	3 -0.10	8 -0.01	8 -0.01
Resuspension Rate	4 0.06	4 0.09	3 -0.04	3 -0.02
Release time of 1	7 -0.02	7 -0.05	9 0.00	9 0.00
Release time of 2	9 0.00	9 0.00	6 0.02	6 0.01
Release time of 3	2 -0.12	1 -0.30	2 -0.69	2 -0.57
Release time of 4	8 -0.01	8 -0.01	5 -0.02	5 -0.01
Release time of 5	5 0.03	5 0.09	7 0.01	7 0.01
Release time of 6	6 -0.03	6 -0.08	4 -0.02	4 -0.01
Building Exchange Rate	1 -0.29	2 -0.27	1 -0.97	1 -0.79
R-SQUARE	0.20	0.20	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 20:37:27 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Pu239
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	5 -0.10	9 -0.01	9 0.00
Resuspension Rate	4 0.06	6 0.09	6 -0.04	6 -0.02
Release time of 1	8 -0.01	8 -0.02	8 -0.02	8 -0.01
Release time of 2	9 -0.01	9 -0.01	5 0.04	5 0.02
Release time of 3	5 -0.05	3 -0.11	3 0.06	3 0.04
Release time of 4	2 -0.12	2 -0.29	2 -0.71	2 -0.59
Release time of 5	6 0.04	4 0.10	7 -0.03	7 -0.02
Release time of 6	7 -0.03	7 -0.07	4 -0.04	4 -0.03
Building Exchange Rate	1 -0.34	1 -0.32	1 -0.97	1 -0.79
R-SQUARE	0.26	0.26	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 20:37:27 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Pu239
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	2 -0.09	4 -0.12	9 0.01	9 0.00
Resuspension Rate	4 0.08	5 0.12	4 -0.05	5 -0.02
Release time of 1	8 0.01	8 0.02	8 0.01	8 0.01
Release time of 2	7 -0.01	7 -0.02	6 0.02	6 0.01
Release time of 3	5 -0.06	3 -0.15	7 0.01	7 0.01
Release time of 4	9 0.00	9 -0.01	3 -0.07	3 -0.04
Release time of 5	3 -0.09	2 -0.21	2 -0.68	2 -0.54
Release time of 6	6 -0.02	6 -0.04	5 -0.04	4 -0.03
Building Exchange Rate	1 -0.33	1 -0.30	1 -0.97	1 -0.79
R-SQUARE	0.25	0.25	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 20:37:27 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Pu239
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient =				
Repetition =				
	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	4 -0.08	6 -0.11	4 0.06	4 0.03
Resuspension Rate	3 0.10	4 0.15	3 -0.11	3 -0.05
Release time of 1	7 -0.01	7 -0.03	7 -0.03	7 -0.01
Release time of 2	9 0.01	9 0.01	8 0.01	8 0.01
Release time of 3	5 -0.06	3 -0.15	6 0.04	6 0.03
Release time of 4	8 -0.01	8 -0.02	5 -0.05	5 -0.03
Release time of 5	6 0.05	5 0.12	9 0.00	9 0.00
Release time of 6	2 -0.12	1 -0.31	2 -0.70	2 -0.57
Building Exchange Rate	1 -0.32	2 -0.29	1 -0.97	1 -0.79
R-SQUARE	0.23	0.23	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Pu-240 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/05/11 22:14:27 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Pu240
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu240-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/05/11 22:14:27 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Pu240
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu240-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/05/11 22:14:27 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Pu240
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu240-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	3.69E-05	1.63E-05	1.09E-05	1.63E-05	1.09E-05	3.69E-05	1.28E-04
Maximum	2.23E-04	7.75E-05	7.33E-05	7.87E-05	4.62E-05	2.38E-04	7.28E-04
Average	4.43E-05	1.96E-05	1.31E-05	1.95E-05	1.31E-05	4.43E-05	1.54E-04
Std.Dev	1.50E-05	6.38E-06	5.02E-06	6.07E-06	4.20E-06	1.51E-05	4.99E-05
* Total *							
Minimum	3.69E-05	1.63E-05	1.09E-05	1.63E-05	1.09E-05	3.69E-05	1.28E-04
Maximum	2.23E-04	7.75E-05	7.33E-05	7.87E-05	4.62E-05	2.38E-04	7.28E-04
Average	4.43E-05	1.96E-05	1.31E-05	1.95E-05	1.31E-05	4.43E-05	1.54E-04
Std.Dev	1.50E-05	6.38E-06	5.02E-06	6.07E-06	4.20E-06	1.51E-05	4.99E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/05/11 22:14:27 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Pu240
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu240-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	3.63E-05	1.61E-05	1.05E-05	1.59E-05	1.06E-05	3.59E-05	1.25E-04
Maximum	2.20E-04	7.68E-05	7.26E-05	7.80E-05	4.47E-05	2.35E-04	7.21E-04
Average	4.37E-05	1.93E-05	1.29E-05	1.93E-05	1.29E-05	4.37E-05	1.52E-04
Std.Dev	1.46E-05	6.19E-06	4.91E-06	5.90E-06	4.06E-06	1.48E-05	4.87E-05

* Total *							
Minimum	3.63E-05	1.61E-05	1.05E-05	1.59E-05	1.06E-05	3.59E-05	1.25E-04
Maximum	2.20E-04	7.68E-05	7.26E-05	7.80E-05	4.47E-05	2.35E-04	7.21E-04
Average	4.37E-05	1.93E-05	1.29E-05	1.93E-05	1.29E-05	4.37E-05	1.52E-04
Std.Dev	1.46E-05	6.19E-06	4.91E-06	5.90E-06	4.06E-06	1.48E-05	4.87E-05

** RESRAD-BUILD Probabilistic Output 3.50 12/05/11 22:14:27 Page: 29 **
 Title : Humboldt Bay sensitivity analysis_Pu240
 Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu240-1.bld
 Evaluation Time: 50.000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source	2	3	4	5	6	Total
*** 1 ***								
Minimum	3.52E-09	2.66E-09	9.34E-10	2.66E-09	9.39E-10	3.52E-09	1.42E-08	
Maximum	4.07E-05	1.93E-05	1.38E-05	1.98E-05	1.22E-05	4.48E-05	1.42E-04	
Average	1.71E-05	7.59E-06	5.06E-06	7.61E-06	5.02E-06	1.74E-05	5.98E-05	
Std.Dev	1.17E-05	5.20E-06	3.49E-06	5.19E-06	3.47E-06	1.19E-05	3.83E-05	

* Total *							
Minimum	3.52E-09	2.66E-09	9.34E-10	2.66E-09	9.39E-10	3.52E-09	1.42E-08
Maximum	4.07E-05	1.93E-05	1.38E-05	1.98E-05	1.22E-05	4.48E-05	1.42E-04
Average	1.71E-05	7.59E-06	5.06E-06	7.61E-06	5.02E-06	1.74E-05	5.98E-05
Std.Dev	1.17E-05	5.20E-06	3.49E-06	5.19E-06	3.47E-06	1.19E-05	3.83E-05

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 22:14:27 Page: 81 **
 Title : Humboldt Bay sensitivity analysis_Pu240
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total at Time: 1
 Coefficient =
 Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.08	5 -0.11	9 0.03	9 0.01
Resuspension Rate	2 0.09	4 0.13	7 -0.07	7 -0.03
Release time of 1	6 -0.04	6 -0.10	2 -0.30	3 -0.18
Release time of 2	9 -0.01	9 -0.03	5 -0.12	5 -0.07
Release time of 3	4 -0.07	2 -0.16	8 -0.05	8 -0.03
Release time of 4	8 -0.02	8 -0.06	4 -0.16	4 -0.09
Release time of 5	7 0.03	7 0.09	6 -0.08	6 -0.05
Release time of 6	5 -0.06	3 -0.14	3 -0.30	2 -0.18
Building Exchange Rate	1 -0.33	1 -0.31	1 -0.97	1 -0.79
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 22:14:27 Page: 82 **
 Title : Humboldt Bay sensitivity analysis_Pu240
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1
 Coefficient =
 Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.07	6 -0.10	5 0.05	6 0.02
Resuspension Rate	3 0.10	4 0.15	3 -0.09	3 -0.04
Release time of 1	2 -0.11	2 -0.26	2 -0.71	2 -0.59
Release time of 2	9 0.00	9 0.00	9 -0.01	9 0.00
Release time of 3	5 -0.06	3 -0.15	4 0.05	4 0.03
Release time of 4	8 -0.02	8 -0.04	6 -0.04	5 -0.02
Release time of 5	6 0.05	5 0.14	8 0.03	8 0.02
Release time of 6	7 -0.02	7 -0.06	7 -0.03	7 -0.02
Building Exchange Rate	1 -0.31	1 -0.29	1 -0.96	1 -0.78
R-SQUARE	0.23	0.23	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 22:14:27 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Pu240
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient =				
Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	3	-0.07	4	-0.09
Resuspension Rate	5	0.04	6	0.06
Release time of 1	9	-0.01	9	-0.02
Release time of 2	2	-0.10	2	-0.25
Release time of 3	4	-0.05	3	-0.12
Release time of 4	8	-0.01	8	-0.03
Release time of 5	6	0.03	5	0.06
Release time of 6	7	-0.02	7	-0.05
Building Exchange Rate	1	-0.33	1	-0.31
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 22:14:27 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Pu240
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient =				
Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	3	-0.07	3	-0.10
Resuspension Rate	4	0.06	4	0.09
Release time of 1	7	-0.02	7	-0.05
Release time of 2	9	0.00	9	0.00
Release time of 3	2	-0.12	1	-0.30
Release time of 4	8	-0.01	8	-0.01
Release time of 5	5	0.03	5	0.09
Release time of 6	6	-0.03	6	-0.08
Building Exchange Rate	1	-0.29	2	-0.27
R-SQUARE	0.20	0.20	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 22:14:27 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Pu240
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient =				
Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	3	-0.07	5	-0.10
Resuspension Rate	4	0.06	6	0.09
Release time of 1	8	-0.01	8	-0.02
Release time of 2	9	-0.01	9	-0.01
Release time of 3	5	-0.05	3	-0.11
Release time of 4	2	-0.12	2	-0.29
Release time of 5	6	0.04	4	0.10
Release time of 6	7	-0.03	7	-0.07
Building Exchange Rate	1	-0.34	1	-0.32
R-SQUARE	0.26	0.26	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 22:14:27 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Pu240
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.09	4 -0.12	9 0.01	9 0.00
Resuspension Rate	4 0.08	5 0.12	4 -0.05	5 -0.02
Release time of 1	8 0.01	8 0.02	8 0.01	8 0.01
Release time of 2	7 -0.01	7 -0.02	6 0.02	6 0.01
Release time of 3	5 -0.06	3 -0.15	7 0.01	7 0.01
Release time of 4	3 0.00	3 -0.01	3 -0.07	3 -0.04
Release time of 5	3 -0.09	2 -0.21	2 -0.68	2 -0.54
Release time of 6	6 -0.02	2 -0.04	5 -0.05	4 -0.03
Building Exchange Rate	1 -0.33	1 -0.30	1 -0.97	1 -0.79
R-SQUARE	0.25	0.25	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/05/11 22:14:27 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Pu240
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.08	6 -0.11	4 0.07	4 0.03
Resuspension Rate	3 0.10	4 0.15	3 -0.11	3 -0.05
Release time of 1	7 -0.01	7 -0.03	7 -0.02	7 -0.01
Release time of 2	9 0.01	9 0.01	8 0.01	8 0.01
Release time of 3	5 -0.06	3 -0.15	6 0.04	6 0.03
Release time of 4	8 -0.01	8 -0.02	5 -0.05	5 -0.03
Release time of 5	6 0.05	5 0.12	9 0.00	9 0.00
Release time of 6	2 -0.12	1 -0.31	2 -0.70	2 -0.57
Building Exchange Rate	1 -0.32	2 -0.29	1 -0.97	1 -0.79
R-SQUARE	0.23	0.23	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Pu-241 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/06/11 08:07:44 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Pu241
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu241-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/06/11 08:07:44 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Pu241
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu241-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RF0(1, 1)	TRIANGULAR	1000 10000 100000
4	RF0(2, 1)	TRIANGULAR	1000 10000 100000
5	RF0(3, 1)	TRIANGULAR	1000 10000 100000
6	RF0(4, 1)	TRIANGULAR	1000 10000 100000
7	RF0(5, 1)	TRIANGULAR	1000 10000 100000
8	RF0(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/06/11 08:07:44 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Pu241
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu241-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	7.27E-07	3.21E-07	2.14E-07	3.21E-07	2.13E-07	7.27E-07	2.52E-06
Maximum	4.36E-06	1.52E-06	1.43E-06	1.54E-06	9.05E-07	4.65E-06	1.42E-05
Average	8.66E-07	3.83E-07	2.56E-07	3.82E-07	2.55E-07	8.67E-07	3.01E-06
Std.Dev	2.85E-07	1.21E-07	9.58E-08	1.15E-07	7.86E-08	2.90E-07	9.50E-07
* Total *							
Minimum	7.27E-07	3.21E-07	2.14E-07	3.21E-07	2.13E-07	7.27E-07	2.52E-06
Maximum	4.36E-06	1.52E-06	1.43E-06	1.54E-06	9.05E-07	4.65E-06	1.42E-05
Average	8.66E-07	3.83E-07	2.56E-07	3.82E-07	2.55E-07	8.67E-07	3.01E-06
Std.Dev	2.85E-07	1.21E-07	9.58E-08	1.15E-07	7.86E-08	2.90E-07	9.50E-07

** RESRAD-BUILD Probabilistic Output 3.50 12/06/11 08:07:44 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Pu241
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu241-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	7.39E-07	3.27E-07	2.15E-07	3.24E-07	2.16E-07	7.31E-07	2.55E-06
Maximum	4.47E-06	1.56E-06	1.47E-06	1.58E-06	8.95E-07	4.77E-06	1.46E-05
Average	8.84E-07	3.91E-07	2.61E-07	3.90E-07	2.60E-07	8.85E-07	3.07E-06
Std.Dev	2.89E-07	1.21E-07	9.70E-08	1.16E-07	7.87E-08	2.94E-07	9.62E-07

* Total *							
Minimum	7.39E-07	3.27E-07	2.15E-07	3.24E-07	2.16E-07	7.31E-07	2.55E-06
Maximum	4.47E-06	1.56E-06	1.47E-06	1.58E-06	8.95E-07	4.77E-06	1.46E-05
Average	8.84E-07	3.91E-07	2.61E-07	3.90E-07	2.60E-07	8.85E-07	3.07E-06
Std.Dev	2.89E-07	1.21E-07	9.70E-08	1.16E-07	7.87E-08	2.94E-07	9.62E-07

** RESRAD-BUILD Probabilistic Output 3.50 12/06/11 08:07:44 Page: 29 **
 Title : Humboldt Bay sensitivity analysis_Pu241
 Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Pu241-1.bld
 Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source	2	3	4	5	6	Total
*** 1 ***								
Minimum	8.55E-09	1.61E-09	6.51E-10	1.61E-09	6.53E-10	6.26E-09	1.93E-08	
Maximum	1.29E-06	6.09E-07	4.37E-07	6.27E-07	3.87E-07	1.42E-06	4.49E-06	
Average	5.48E-07	2.40E-07	1.60E-07	2.41E-07	1.58E-07	5.52E-07	1.90E-06	
Std.Dev	3.69E-07	1.63E-07	1.10E-07	1.63E-07	1.09E-07	3.73E-07	1.21E-06	

* Total *							
Minimum	8.55E-09	1.61E-09	6.51E-10	1.61E-09	6.53E-10	6.26E-09	1.93E-08
Maximum	1.29E-06	6.09E-07	4.37E-07	6.27E-07	3.87E-07	1.42E-06	4.49E-06
Average	5.48E-07	2.40E-07	1.60E-07	2.41E-07	1.58E-07	5.52E-07	1.90E-06
Std.Dev	3.69E-07	1.63E-07	1.10E-07	1.63E-07	1.09E-07	3.73E-07	1.21E-06

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 08:07:44 Page: 81 **
 Title : Humboldt Bay sensitivity analysis_Pu241
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total at Time: 1
 Coefficient =
 Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	5 -0.11	7 -0.06	8 -0.03
Resuspension Rate	2 0.09	4 0.13	9 0.05	9 0.02
Release time of 1	6 -0.04	6 -0.10	2 -0.30	2 -0.18
Release time of 2	9 -0.01	9 -0.03	5 -0.13	5 -0.07
Release time of 3	4 -0.06	2 -0.16	8 -0.06	7 -0.04
Release time of 4	8 -0.02	8 -0.06	4 -0.16	4 -0.09
Release time of 5	7 0.04	7 0.09	6 -0.07	6 -0.04
Release time of 6	5 -0.06	3 -0.14	3 -0.30	3 -0.18
Building Exchange Rate	1 -0.33	1 -0.30	1 -0.97	1 -0.79
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 08:07:44 Page: 82 **
 Title : Humboldt Bay sensitivity analysis_Pu241
 Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1
 Coefficient =
 Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	4 -0.07	6 -0.10	5 -0.03	6 -0.02
Resuspension Rate	2 0.11	3 0.15	9 0.02	9 0.01
Release time of 1	3 -0.11	2 -0.26	2 -0.71	2 -0.59
Release time of 2	9 0.00	9 0.00	8 -0.02	8 -0.01
Release time of 3	5 -0.06	4 -0.15	3 0.04	3 0.03
Release time of 4	8 -0.02	8 -0.05	4 -0.04	4 -0.02
Release time of 5	6 0.06	5 0.14	6 0.03	5 0.02
Release time of 6	7 -0.02	7 -0.06	7 -0.02	7 -0.01
Building Exchange Rate	1 -0.31	1 -0.28	1 -0.96	1 -0.78
R-SQUARE	0.23	0.23	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
 -R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 08:07:44 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Pu241
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.06	4 -0.09	3 -0.05	3 -0.02
Resuspension Rate	5 0.04	6 0.06	4 0.03	5 0.01
Release time of 1	9 -0.01	9 -0.02	7 -0.02	7 -0.01
Release time of 2	2 -0.10	2 -0.25	2 -0.71	2 -0.58
Release time of 3	4 -0.05	3 -0.12	9 0.02	9 0.01
Release time of 4	8 -0.01	8 -0.03	8 -0.02	8 -0.01
Release time of 5	6 0.03	5 0.07	5 0.03	4 0.02
Release time of 6	7 -0.02	7 -0.05	6 -0.02	6 -0.01
Building Exchange Rate	1 -0.33	1 -0.30	1 -0.97	1 -0.78
R-SQUARE	0.24	0.24	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 08:07:44 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Pu241
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	3 -0.10	3 -0.10	3 -0.05
Resuspension Rate	4 0.07	4 0.10	4 0.08	4 0.04
Release time of 1	7 -0.02	7 -0.05	9 0.00	9 0.00
Release time of 2	9 0.00	9 0.00	8 0.01	8 0.01
Release time of 3	2 -0.11	1 -0.29	2 -0.69	2 -0.57
Release time of 4	8 -0.01	8 -0.01	5 -0.03	5 -0.02
Release time of 5	5 0.03	5 0.09	7 0.02	7 0.01
Release time of 6	6 -0.03	6 -0.08	6 -0.03	6 -0.02
Building Exchange Rate	1 -0.29	2 -0.27	1 -0.97	1 -0.79
R-SQUARE	0.19	0.19	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 08:07:44 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Pu241
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	3 -0.07	5 -0.09	3 -0.10	3 -0.05
Resuspension Rate	4 0.07	6 0.09	4 0.09	4 0.04
Release time of 1	8 -0.01	8 -0.03	8 -0.03	8 -0.02
Release time of 2	9 -0.01	9 -0.01	6 0.04	6 0.02
Release time of 3	5 -0.04	3 -0.11	5 0.04	5 0.02
Release time of 4	2 -0.12	2 -0.30	2 -0.71	2 -0.59
Release time of 5	6 0.04	4 0.10	9 -0.02	9 -0.01
Release time of 6	7 -0.03	7 -0.07	7 -0.03	7 -0.02
Building Exchange Rate	1 -0.34	1 -0.31	1 -0.97	1 -0.79
R-SQUARE	0.25	0.25	0.95	0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 08:07:44 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Pu241
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	3	-0.09	5	-0.12
Resuspension Rate	2	0.09	4	0.13
Release time of 1	8	0.01	8	0.02
Release time of 2	7	-0.01	7	-0.02
Release time of 3	5	-0.06	3	-0.15
Release time of 4	9	0.00	9	-0.01
Release time of 5	4	-0.09	2	-0.21
Release time of 6	6	-0.02	6	-0.04
Building Exchange Rate	1	-0.33	1	-0.30
R-SQUARE	0.26	0.26	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/06/11 08:07:44 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Pu241
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff
Deposition Velocity	4	-0.08	6	-0.11
Resuspension Rate	3	0.11	3	0.16
Release time of 1	7	-0.01	7	-0.04
Release time of 2	9	0.01	9	0.01
Release time of 3	5	-0.06	4	-0.15
Release time of 4	8	-0.01	8	-0.02
Release time of 5	6	0.05	5	0.12
Release time of 6	2	-0.12	1	-0.30
Building Exchange Rate	1	-0.31	2	-0.29
R-SQUARE	0.22	0.22	0.96	0.96

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Sr-90 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 14:56:50 Page: 1 **
Title : Humboldt Bay sensitivity analysis_sr90
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Sr90-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 14:56:50 Page: 2 **
Title : Humboldt Bay sensitivity analysis_sr90
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Sr90-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters		
1	UD	LOGUNIFORM	.0000027	.0027	
2	DKSUS	LOGUNIFORM	2.5E-11	.0000135	
3	RF0(1, 1)	TRIANGULAR	1000	10000	100000
4	RF0(2, 1)	TRIANGULAR	1000	10000	100000
5	RF0(3, 1)	TRIANGULAR	1000	10000	100000
6	RF0(4, 1)	TRIANGULAR	1000	10000	100000
7	RF0(5, 1)	TRIANGULAR	1000	10000	100000
8	RF0(6, 1)	TRIANGULAR	1000	10000	100000
9	LAMBDAT	TRUNCATED LOGNORMAL-N	.4187	.88	.001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 14:56:50 Page: 3 **
Title : Humboldt Bay sensitivity analysis_sr90
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Sr90-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	1.56E-06	6.87E-07	4.55E-07	6.89E-07	4.57E-07	1.55E-06	5.44E-06
Maximum	2.14E-06	8.74E-07	6.40E-07	8.77E-07	5.45E-07	2.17E-06	7.23E-06
Average	1.63E-06	7.08E-07	4.69E-07	7.07E-07	4.69E-07	1.62E-06	5.60E-06
Std.Dev	4.00E-08	1.64E-08	1.33E-08	1.56E-08	1.03E-08	4.07E-08	1.33E-07
* Total *							
Minimum	1.56E-06	6.87E-07	4.55E-07	6.89E-07	4.57E-07	1.55E-06	5.44E-06
Maximum	2.14E-06	8.74E-07	6.40E-07	8.77E-07	5.45E-07	2.17E-06	7.23E-06
Average	1.63E-06	7.08E-07	4.69E-07	7.07E-07	4.69E-07	1.62E-06	5.60E-06
Std.Dev	4.00E-08	1.64E-08	1.33E-08	1.56E-08	1.03E-08	4.07E-08	1.33E-07

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 14:56:50 Page: 16 **
Title : Humboldt Bay sensitivity analysis_sr90
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Sr90-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	1.24E-06	5.95E-07	4.00E-07	6.10E-07	4.13E-07	1.27E-06	4.71E-06
Maximum	2.00E-06	8.24E-07	5.95E-07	8.27E-07	5.17E-07	2.02E-06	6.78E-06
Average	1.56E-06	6.79E-07	4.50E-07	6.79E-07	4.50E-07	1.55E-06	5.37E-06
Std.Dev	4.16E-08	1.59E-08	1.21E-08	1.55E-08	9.17E-09	4.10E-08	1.31E-07

* Total *							
Minimum	1.24E-06	5.95E-07	4.00E-07	6.10E-07	4.13E-07	1.27E-06	4.71E-06
Maximum	2.00E-06	8.24E-07	5.95E-07	8.27E-07	5.17E-07	2.02E-06	6.78E-06
Average	1.56E-06	6.79E-07	4.50E-07	6.79E-07	4.50E-07	1.55E-06	5.37E-06
Std.Dev	4.16E-08	1.59E-08	1.21E-08	1.55E-08	9.17E-09	4.10E-08	1.31E-07

** RESRAD-BUILD Probabilistic Output 3.50 12/03/11 14:56:50 Page: 29 **
Title : Humboldt Bay sensitivity analysis_Sr90
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Sr90-1.bld
Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

Receptor	1	Source	3	4	5	6	Total
*** 1***		2					
Minimum	1.22E-08	2.36E-09	9.57E-10	2.36E-09	9.61E-10	9.01E-09	2.79E-08
Maximum	4.00E-07	1.73E-07	1.14E-07	1.73E-07	1.15E-07	3.97E-07	1.36E-06
Average	1.99E-07	8.48E-08	5.59E-08	8.49E-08	5.58E-08	1.96E-07	6.77E-07
Std.Dev	1.39E-07	6.10E-08	4.06E-08	6.10E-08	4.07E-08	1.38E-07	4.52E-07

* Total *							
Minimum	1.22E-08	2.36E-09	9.57E-10	2.36E-09	9.61E-10	9.01E-09	2.79E-08
Maximum	4.00E-07	1.73E-07	1.14E-07	1.73E-07	1.15E-07	3.97E-07	1.36E-06
Average	1.99E-07	8.48E-08	5.59E-08	8.49E-08	5.58E-08	1.96E-07	6.77E-07
Std.Dev	1.39E-07	6.10E-08	4.06E-08	6.10E-08	4.07E-08	1.38E-07	4.52E-07

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 14:56:50 Page: 81 **
Title : Humboldt Bay sensitivity analysis_Sr90
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total Coefficient = Repetition =		at Time: 1		PCC		SRC		PRCC		SRRC	
Description of Probabilistic Variable		Sig		Coeff		Sig		Coeff		Sig	
Deposition Velocity		3	-0.07	6	-0.10	3	0.21	3	0.14		
Resuspension Rate		2	0.07	4	0.11	2	-0.23	2	-0.16		
Release time of 1		7	-0.02	7	-0.05	7	0.02	7	0.02		
Release time of 2		9	0.00	9	-0.01	6	-0.02	6	-0.02		
Release time of 3		4	-0.06	2	-0.16	9	-0.01	9	0.00		
Release time of 4		8	-0.02	8	-0.04	5	-0.03	5	-0.02		
Release time of 5		5	0.05	3	0.13	8	0.01	8	0.01		
Release time of 6		6	-0.04	5	-0.11	4	-0.05	4	-0.04		
Building Exchange Rate		1	-0.36	1	-0.35	1	-0.95	1	-0.95		
R-SQUARE			0.18		0.18		0.91		0.91		

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 14:56:50 Page: 82 **
Title : Humboldt Bay sensitivity analysis_Sr90
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1 Coefficient = Repetition =		PCC		SRC		PRCC		SRRC	
Description of Probabilistic Variable		Sig		Coeff		Sig		Coeff	
Deposition Velocity		4	-0.06	6	-0.09	3	0.22	3	0.15
Resuspension Rate		2	0.08	5	0.13	2	-0.22	2	-0.16
Release time of 1		6	-0.05	4	-0.13	5	-0.04	6	-0.03
Release time of 2		9	0.01	9	0.01	8	0.00	8	0.00
Release time of 3		5	-0.06	3	-0.15	9	0.00	9	0.00
Release time of 4		8	-0.01	8	-0.04	7	-0.03	7	-0.02
Release time of 5		3	0.06	2	0.16	6	0.04	5	0.04
Release time of 6		7	-0.03	7	-0.07	4	-0.05	4	-0.04
Building Exchange Rate		1	-0.34	1	-0.33	1	-0.95	1	-0.94
R-SQUARE			0.16		0.16		0.90		0.90

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 14:56:50 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Sr90
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity	2	-0.06		5	-0.09	3	0.23	3	0.16
Resuspension Rate	5	0.04		6	0.06	2	-0.26	2	-0.18
Release time of 1	9	0.00		9	0.00	7	0.03	7	0.03
Release time of 2	4	-0.05		3	-0.12	5	-0.07	5	-0.06
Release time of 3	3	-0.05		2	-0.14	6	0.04	6	0.04
Release time of 4	8	-0.01		8	-0.04	4	-0.08	4	-0.07
Release time of 5	6	0.04		4	0.10	9	0.01	9	0.01
Release time of 6	7	-0.02		7	-0.05	8	-0.01	8	-0.01
Building Exchange Rate	1	-0.37		1	-0.36	1	-0.95	1	-0.94
R-SQUARE			0.18		0.18		0.91		0.91

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 14:56:50 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Sr90
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity	3	-0.06		4	-0.09	3	0.24	3	0.16
Resuspension Rate	4	0.06		5	0.09	2	-0.25	2	-0.17
Release time of 1	7	-0.01		7	-0.04	9	0.00	9	0.00
Release time of 2	9	0.00		9	-0.01	8	0.00	8	0.00
Release time of 3	2	-0.07		2	-0.19	6	0.03	6	0.03
Release time of 4	8	-0.01		8	-0.02	5	-0.04	5	-0.03
Release time of 5	5	0.04		3	0.12	7	-0.02	7	-0.02
Release time of 6	6	-0.03		6	-0.08	4	-0.06	4	-0.05
Building Exchange Rate	1	-0.32		1	-0.31	1	-0.95	1	-0.95
R-SQUARE			0.15		0.15		0.91		0.91

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 14:56:50 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Sr90
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Deposition Velocity	2	-0.06		5	-0.09	3	0.19	3	0.13
Resuspension Rate	4	0.06		6	0.08	2	-0.22	2	-0.15
Release time of 1	9	0.00		9	0.00	6	0.04	6	0.03
Release time of 2	8	-0.01		8	-0.02	5	-0.06	5	-0.05
Release time of 3	6	-0.05		4	-0.13	9	0.01	9	0.01
Release time of 4	3	-0.06		2	-0.16	4	-0.08	4	-0.07
Release time of 5	5	0.05		3	0.13	7	0.03	7	0.03
Release time of 6	7	-0.03		7	-0.06	8	-0.03	8	-0.02
Building Exchange Rate	1	-0.37		1	-0.36	1	-0.95	1	-0.94
R-SQUARE			0.19		0.19		0.90		0.90

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 14:56:50 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Sr90
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	2 -0.08	3 -0.11	3 0.21	3 0.14
Resuspension Rate	3 0.07	4 0.10	2 -0.23	2 -0.16
Release time of 1	7 0.01	7 0.03	4 0.04	4 0.03
Release time of 2	8 -0.01	8 -0.02	8 -0.02	8 -0.02
Release time of 3	4 -0.06	2 -0.16	7 -0.02	7 -0.02
Release time of 4	9 0.00	9 -0.01	9 0.00	9 0.00
Release time of 5	5 -0.02	5 -0.06	6 -0.04	6 -0.03
Release time of 6	6 -0.02	6 -0.04	5 -0.04	5 -0.03
Building Exchange Rate	1 -0.38	1 -0.37	1 -0.95	1 -0.94
R-SQUARE	0.20	0.20	0.90	0.90

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/03/11 14:56:50 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Sr90
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC 1	SRC 1	PRCC 1	SRRC 1
	Sig	Sig	Sig	Sig
	Coeff	Coeff	Coeff	Coeff
Deposition Velocity	4 -0.07	6 -0.11	3 0.18	3 0.13
Resuspension Rate	2 0.09	5 0.13	2 -0.22	2 -0.15
Release time of 1	7 -0.01	7 -0.02	5 0.03	5 0.03
Release time of 2	8 0.01	8 0.02	8 0.01	8 0.01
Release time of 3	5 -0.06	3 -0.15	7 -0.02	7 -0.02
Release time of 4	9 0.00	9 -0.01	6 -0.03	6 -0.02
Release time of 5	6 0.06	4 0.15	9 0.00	9 0.00
Release time of 6	3 -0.08	2 -0.19	4 -0.06	4 -0.06
Building Exchange Rate	1 -0.34	1 -0.33	1 -0.95	1 -0.94
R-SQUARE	0.16	0.16	0.90	0.90

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Tc-99 Results:

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:37:59 Page: 1 **
Title : Humboldt Bay sensitivity analysis_Tc99
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Tc99-1.bld

Probabilistic Output Table of Contents

Table of Contents.....	1
Probabilistic Input.....	2
Statistics for time = 0.00E+00 yr.....	3
Statistics for time = 1.00E+00 yr.....	16
Statistics for time = 5.00E+01 yr.....	29
Statistics for time = 1.00E+02 yr.....	42
Statistics for time = 2.00E+02 yr.....	55
Statistics for time = 4.00E+02 yr.....	68
Regression and Correlation Output.....	81

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:37:59 Page: 2 **
Title : Humboldt Bay sensitivity analysis_Tc99
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Tc99-1.bld

Probabilistic Input

Number of Sample Runs: 300

Number	Name	Distribution	Parameters
1	UD	LOGUNIFORM	.0000027 .0027
2	DKSUS	LOGUNIFORM	2.5E-11 .0000135
3	RFO(1, 1)	TRIANGULAR	1000 10000 100000
4	RFO(2, 1)	TRIANGULAR	1000 10000 100000
5	RFO(3, 1)	TRIANGULAR	1000 10000 100000
6	RFO(4, 1)	TRIANGULAR	1000 10000 100000
7	RFO(5, 1)	TRIANGULAR	1000 10000 100000
8	RFO(6, 1)	TRIANGULAR	1000 10000 100000
9	LAMBDA	TRUNCATED LOGNORMAL-N	.4187 .88 .001 .999

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:37:59 Page: 3 **
Title : Humboldt Bay sensitivity analysis_Tc99
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Tc99-1.bld
Evaluation Time: 0.00000000E+00 years

Statistics for Dose (mrem) for Time: 1

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	1.50E-08	6.63E-09	4.38E-09	6.66E-09	4.42E-09	1.51E-08	5.25E-08
Maximum	1.98E-08	8.27E-09	5.75E-09	8.03E-09	5.85E-09	1.91E-08	6.51E-08
Average	1.59E-08	6.87E-09	4.54E-09	6.87E-09	4.54E-09	1.57E-08	5.45E-08
Std.Dev	3.85E-10	1.62E-10	1.20E-10	1.47E-10	1.14E-10	3.48E-10	1.24E-09
* Total *							
Minimum	1.50E-08	6.63E-09	4.38E-09	6.66E-09	4.42E-09	1.51E-08	5.25E-08
Maximum	1.98E-08	8.27E-09	5.75E-09	8.03E-09	5.85E-09	1.91E-08	6.51E-08
Average	1.59E-08	6.87E-09	4.54E-09	6.87E-09	4.54E-09	1.57E-08	5.45E-08
Std.Dev	3.85E-10	1.62E-10	1.20E-10	1.47E-10	1.14E-10	3.48E-10	1.24E-09

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:37:59 Page: 16 **
Title : Humboldt Bay sensitivity analysis_Tc99
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Tc99-1.bld
Evaluation Time: 1.00000000 years

Statistics for Dose (mrem) for Time: 2

Receptor	1	Source 2	3	4	5	6	Total
*** 1***							
Minimum	1.22E-08	5.86E-09	3.94E-09	6.02E-09	3.97E-09	1.26E-08	4.65E-08
Maximum	1.82E-08	7.91E-09	5.30E-09	7.79E-09	5.32E-09	1.82E-08	6.23E-08
Average	1.56E-08	6.75E-09	4.47E-09	6.75E-09	4.47E-09	1.55E-08	5.36E-08
Std.Dev	4.27E-10	1.75E-10	1.19E-10	1.67E-10	1.10E-10	3.98E-10	1.34E-09

* Total *							
Minimum	1.22E-08	5.86E-09	3.94E-09	6.02E-09	3.97E-09	1.26E-08	4.65E-08
Maximum	1.82E-08	7.91E-09	5.30E-09	7.79E-09	5.32E-09	1.82E-08	6.23E-08
Average	1.56E-08	6.75E-09	4.47E-09	6.75E-09	4.47E-09	1.55E-08	5.36E-08
Std.Dev	4.27E-10	1.75E-10	1.19E-10	1.67E-10	1.10E-10	3.98E-10	1.34E-09

** RESRAD-BUILD Probabilistic Output 3.50 12/04/11 14:37:59 Page: 29 **
Title : Humboldt Bay sensitivity analysis_Tc99
Input File : C:\RESRAD_Family\BUILD\3.5\HB_SA-Tc99-1.bld
Evaluation Time: 50.0000038 years

Statistics for Dose (mrem) for Time: 3

	Receptor	1	Source	2	3	4	5	6	Total
*** 1***									
Minimum	5.59E-10	1.09E-10	4.56E-11	1.09E-10	4.57E-11	4.15E-10	1.28E-09		
Maximum	1.29E-08	5.55E-09	3.65E-09	5.54E-09	3.67E-09	1.28E-08	4.37E-08		
Average	6.51E-09	2.73E-09	1.79E-09	2.73E-09	1.79E-09	6.36E-09	2.19E-08		
Std.Dev	4.41E-09	1.94E-09	1.29E-09	1.94E-09	1.29E-09	4.40E-09	1.44E-08		

* Total *							
Minimum	5.59E-10	1.09E-10	4.56E-11	1.09E-10	4.57E-11	4.15E-10	1.28E-09
Maximum	1.29E-08	5.55E-09	3.65E-09	5.54E-09	3.67E-09	1.28E-08	4.37E-08
Average	6.51E-09	2.73E-09	1.79E-09	2.73E-09	1.79E-09	6.36E-09	2.19E-08
Std.Dev	4.41E-09	1.94E-09	1.29E-09	1.94E-09	1.29E-09	4.40E-09	1.44E-08

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:37:59 Page: 81 **
Title : Humboldt Bay sensitivity analysis_Tc99
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Total at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.10	2 -0.14	3 0.27	3 0.26
Resuspension Rate	5 0.04	6 0.06	2 -0.45	2 -0.45
Release time of 1	9 0.00	9 0.00	4 0.05	4 0.05
Release time of 2	7 -0.02	7 -0.05	6 -0.04	6 -0.04
Release time of 3	3 -0.05	3 -0.13	9 0.02	9 0.02
Release time of 4	8 0.00	8 0.00	5 0.04	5 0.05
Release time of 5	6 0.04	5 0.09	8 0.02	8 0.02
Release time of 6	4 -0.05	4 -0.12	7 -0.03	7 -0.04
Building Exchange Rate	1 -0.33	1 -0.33	1 -0.90	1 -0.87
R-SQUARE	0.15	0.15	0.83	0.83

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:37:59 Page: 82 **
Title : Humboldt Bay sensitivity analysis_Tc99
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(1) at Time: 1
Coefficient =
Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.08	2 -0.13	3 0.27	3 0.25
Resuspension Rate	4 0.05	6 0.07	2 -0.43	2 -0.44
Release time of 1	7 -0.03	7 -0.07	4 0.10	4 0.12
Release time of 2	8 -0.01	8 -0.02	7 -0.03	7 -0.03
Release time of 3	3 -0.05	3 -0.12	9 0.00	9 0.01
Release time of 4	9 0.00	9 0.01	6 0.03	6 0.03
Release time of 5	5 0.04	4 0.11	8 0.03	8 0.03
Release time of 6	6 -0.03	5 -0.08	5 -0.07	5 -0.09
Building Exchange Rate	1 -0.30	1 -0.30	1 -0.90	1 -0.87
R-SQUARE	0.12	0.12	0.83	0.83

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:37:59 Page: 83 **
Title : Humboldt Bay sensitivity analysis_Tc99
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(2) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.09	2 -0.14	3 0.29	3 0.27
Resuspension Rate	6 0.03	7 0.04	2 -0.46	2 -0.46
Release time of 1	8 0.01	8 0.03	6 0.03	6 0.04
Release time of 2	4 -0.04	4 -0.10	4 0.05	4 0.06
Release time of 3	3 -0.04	3 -0.11	7 0.03	7 0.03
Release time of 4	9 0.00	9 0.00	9 0.00	9 0.00
Release time of 5	7 0.02	6 0.06	8 -0.01	8 -0.01
Release time of 6	5 -0.03	5 -0.08	5 -0.04	5 -0.05
Building Exchange Rate	1 -0.33	1 -0.32	1 -0.91	1 -0.87
R-SQUARE	0.15	0.15	0.83	0.83

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:37:59 Page: 84 **
Title : Humboldt Bay sensitivity analysis_Tc99
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(3) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.09	3 -0.13	3 0.28	3 0.26
Resuspension Rate	4 0.04	6 0.06	2 -0.44	2 -0.45
Release time of 1	9 0.00	9 0.00	8 -0.01	8 -0.01
Release time of 2	7 -0.02	7 -0.04	6 -0.04	6 -0.04
Release time of 3	3 -0.05	2 -0.14	4 0.15	4 0.18
Release time of 4	8 0.00	8 0.01	7 0.02	7 0.02
Release time of 5	6 0.03	5 0.08	9 0.00	9 0.00
Release time of 6	5 -0.04	4 -0.09	5 -0.06	5 -0.07
Building Exchange Rate	1 -0.31	1 -0.30	1 -0.90	1 -0.87
R-SQUARE	0.13	0.13	0.83	0.83

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:37:59 Page: 85 **
Title : Humboldt Bay sensitivity analysis_Tc99
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(4) at Time: 1				
Coefficient = Repetition =				
	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Deposition Velocity	2 -0.10	2 -0.14	3 0.27	3 0.25
Resuspension Rate	6 0.03	8 0.05	2 -0.44	2 -0.45
Release time of 1	9 0.02	9 0.04	8 0.02	8 0.02
Release time of 2	8 -0.02	7 -0.06	5 -0.09	5 -0.10
Release time of 3	3 -0.05	3 -0.12	9 0.00	9 0.00
Release time of 4	7 -0.03	6 -0.07	4 0.13	4 0.15
Release time of 5	4 0.04	4 0.12	7 0.04	7 0.04
Release time of 6	5 -0.04	5 -0.10	6 -0.04	6 -0.05
Building Exchange Rate	1 -0.34	1 -0.34	1 -0.90	1 -0.87
R-SQUARE	0.15	0.15	0.83	0.83

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:37:59 Page: 86 **
Title : Humboldt Bay sensitivity analysis_Tc99
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(5) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC	SRC	PRCC	SRRC
	1	1	1	1
Sig Coeff				
Deposition Velocity	2 -0.09	2 -0.14	3 0.28	3 0.26
Resuspension Rate	4 0.03	9 0.04	2 -0.45	2 -0.46
Release time of 1	8 0.02	7 0.05	8 0.02	8 0.03
Release time of 2	5 -0.02	4 -0.06	5 -0.08	5 -0.10
Release time of 3	3 -0.05	3 -0.12	9 0.01	9 0.01
Release time of 4	9 0.02	8 0.05	7 0.06	7 0.07
Release time of 5	7 -0.02	6 -0.06	4 0.11	4 0.13
Release time of 6	6 -0.02	5 -0.06	6 -0.06	6 -0.07
Building Exchange Rate	1 -0.31	1 -0.30	1 -0.90	1 -0.86
R-SQUARE	0.14	0.14	0.83	0.83

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (dose) explained by regression on the independent variables.

** RESRAD-BUILD Regression and Correlation output 3.50 12/04/11 14:37:59 Page: 87 **
Title : Humboldt Bay sensitivity analysis_Tc99
Input File : C:\RESRAD_Family\BUILD\3.BLD

Coefficients for Source(6) at Time: 1				
Coefficient =				
Repetition =				
Description of Probabilistic Variable	PCC	SRC	PRCC	SRRC
	1	1	1	1
Sig Coeff				
Deposition Velocity	2 -0.10	3 -0.15	3 0.25	3 0.24
Resuspension Rate	4 0.05	6 0.08	2 -0.43	2 -0.44
Release time of 1	7 0.01	8 0.04	8 0.01	9 0.01
Release time of 2	8 -0.01	7 -0.04	4 -0.04	4 -0.05
Release time of 3	5 -0.05	5 -0.13	9 0.01	8 0.01
Release time of 4	9 0.01	9 0.02	6 0.03	6 0.04
Release time of 5	6 0.05	4 0.13	7 0.02	7 0.02
Release time of 6	3 -0.08	2 -0.21	5 0.03	5 0.04
Building Exchange Rate	1 -0.34	1 -0.34	1 -0.90	1 -0.86
R-SQUARE	0.15	0.15	0.82	0.82

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (dose) explained by regression on the independent variables.