

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters
1	SHF3	UNIFORM	.15 .95
2	DWIBWT	TRIANGULAR	6 10 30
3	DM	TRIANGULAR	0 .15 .6
4	DROOT	UNIFORM	.3 3.8
5	YV(1)	TRUNCATED LOGNORMAL-N	.56 .48 .001 .999
6	RWET(2)	TRIANGULAR	.06 .67 .95
7	WLAM	TRIANGULAR	5.1 18 84
8	MLINH	CONTINUOUS LINEAR	8 0 0 .000008 .0151 .000016 .1365
.00003	.8119 .00004 .9495	.00006 .9937	.000076 .9983 .0001 1
9	DCACTC(1)	TRUNCATED LOGNORMAL-N	5.38 2.1 .001 .999
10	DCACTU1(1)	TRUNCATED LOGNORMAL-N	5.38 2.1 .001 .999
11	DCACTS(1)	TRUNCATED LOGNORMAL-N	5.38 2.1 .001 .999
12	BRTF(47,1)	TRUNCATED LOGNORMAL-N	-5.52 .9 .001 .999
13	BRTF(47,2)	TRUNCATED LOGNORMAL-N	-6.21 .7 .001 .999
14	BRTF(47,3)	TRUNCATED LOGNORMAL-N	-5.12 .7 .001 .999
15	BBIO(47,1)	LOGNORMAL-N	1.6 1.1
16	THICKO	UNIFORM	.15 3.8
17	H(1)	UNIFORM	.01 3.65
18	DENSCZ	BOUNDED NORMAL	1.5105 .159 1.019 2.002
19	TPCZ	BOUNDED NORMAL	.43 .06 .2446 .6154
20	HCCZ	BETA	110 5870 1.398 1.842
21	DENSAQ	BOUNDED NORMAL	1.5105 .159 1.019 2.002
22	TPSZ	BOUNDED NORMAL	.43 .06 .2446 .6154
23	EPSZ	BOUNDED NORMAL	.383 .061 .195 .572
24	HCSZ	BETA	110 5870 1.398 1.842
25	DENSUZ(1)	BOUNDED NORMAL	1.5105 .159 1.019 2.002
26	TPUZ(1)	BOUNDED NORMAL	.43 .06 .2446 .6154
27	EPUZ(1)	BOUNDED NORMAL	.383 .061 .195 .572
28	HCUZ(1)	BETA	110 5870 1.398 1.842
29	BCZ	BOUNDED LOGNORMAL-N	-.0253 .216 .501 1.9
30	BSZ	BOUNDED LOGNORMAL-N	-.0253 .216 .501 1.9
31	UW	UNIFORM	957 1689
32	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253 .216 .501 1.9
33	RI	UNIFORM	.252 .618
34	EVAPTR	UNIFORM	.5 .75

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ONuclide	Peak (j)	Peak Time	Peak Dose	Probabilistic Total Dose Summary							
				t=	DOSE(j,t), mrem/yr						
				0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
Ag-108m	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Min	0.00E+00	2.18E+00	2.18E+00	7.94E-01	1.05E-01	8.88E-05	1.47E-13	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	3.58E+00	3.58E+00	3.54E+00	3.51E+00	3.37E+00	3.03E+00	2.06E+00	6.91E-01	1.51E-02	
Avg	0.00E+00	3.44E+00	3.44E+00	3.40E+00	3.33E+00	3.12E+00	2.65E+00	1.61E+00	4.39E-01	6.19E-03	
Std	0.00E+00	6.58E-02	6.58E-02	1.46E-01	2.38E-01	3.94E-01	5.54E-01	5.52E-01	2.38E-01	5.76E-03	
äALL											
Min	0.00E+00	2.18E+00	2.18E+00	7.94E-01	1.05E-01	8.88E-05	1.47E-13	0.00E+00	0.00E+00	0.00E+00	
Max	0.00E+00	3.58E+00	3.58E+00	3.54E+00	3.51E+00	3.37E+00	3.03E+00	2.06E+00	6.91E-01	1.51E-02	
Avg	0.00E+00	3.44E+00	3.44E+00	3.40E+00	3.33E+00	3.12E+00	2.65E+00	1.61E+00	4.39E-01	6.19E-03	
Std	0.00E+00	6.58E-02	6.58E-02	1.46E-01	2.38E-01	3.94E-01	5.54E-01	5.52E-01	2.38E-01	5.76E-03	

äALL is total dose summed for all nuclides.

Peak of the mean dose (averaged over observations) at graphical times
 Repetition Time of peak mean dose Peak mean dose
 Years mrem/yr
 1 0.000E+00 3.438E+00
 1 RESRAD Regression and Correlation output 11/26/03 14:54 Page: Coef 1
 Title : Yankee Rowe Sensitivity Analysis=soil
 Input File : Ag-108mDCGL.RAD

Coefficients for peak of mean dose time Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig
Indoor dust filtration factor	20	0.01	25	0.01	14	0.03	22		
Well pump intake depth	23	-0.01	27	-0.01	15	0.03	23		
Depth of soil mixing layer	7	0.02	16	0.02	30	0.01	32		
Depth of roots	11	-0.02	18	-0.02	4	-0.15	9	-	
Wet weight crop yield of fruit, grain and non-leafy vegetables	30	0.00	32	0.00	20	0.02	26		
Wet foliar interception fraction of leafy vegetables	21	0.01	26	0.01	24	0.01	29		
Weathering removal constant of all vegetation	6	-0.03	14	-0.03	7	-0.05	17	-	
Mass loading for inhalation	19	0.01	24	0.01	26	0.01	30		
Kd of Ag-108m in Contaminated Zone	3	0.04	11	0.04	3	0.53	3		
Kd of Ag-108m in Unsaturated Zone 1	16	0.02	22	0.02	11	-0.04	20	-	
Kd of Ag-108m in Saturated Zone	26	0.01	29	0.01	23	-0.01	28	-	
Plant transfer factor for Ag	1	0.11	8	0.10	2	0.55	2		
Meat transfer factor for Ag	14	0.02	21	0.02	5	0.07	15		
Milk transfer factor for Ag	2	0.10	10	0.09	1	0.57	1		
Fish transfer factor for Ag	24	-0.01	28	-0.01	8	-0.05	18	-	
Thickness of contaminated zone	4	0.03	4	0.20	9	0.05	6		
Thickness of Unsaturated zone 1	33	0.00	31	-0.01	33	0.00	27	-	
Density of contaminated zone	8	0.02	5	0.16	21	0.02	12		
Contaminated zone total porosity	18	0.01	9	0.10	34	0.00	34		
Contaminated zone hydraulic conductivity	32	0.00	33	0.00	19	-0.02	25	-	
Density of saturated zone	29	0.00	7	-0.14	22	0.02	4		
Saturated zone total porosity	31	0.00	12	0.03	16	0.02	5		
Saturated zone effective porosity	22	-0.01	6	-0.14	29	0.01	10		
Saturated zone hydraulic conductivity	10	-0.02	17	-0.02	32	0.01	33		
Density of Unsaturated zone 1	12	-0.02	1	-0.69	27	0.01	7		
Total Porosity of Unsaturated zone 1	9	-0.02	2	-0.40	31	0.01	13		
Effective Porosity of Unsaturated zone 1	15	-0.02	3	-0.30	25	0.01	8		
Hydraulic Conductivity of Unsaturated zone 1	17	-0.02	23	-0.01	10	0.04	19		
Contaminated zone b parameter	34	0.00	34	0.00	17	0.02	24		
Saturated zone b parameter	13	-0.02	19	-0.02	12	-0.04	21	-	
Well pumping rate	25	-0.01	15	-0.02	18	0.02	14		
b Parameter of Unsaturated zone 1	5	0.03	13	0.03	28	0.01	31		
Irrigation	28	0.01	20	0.02	13	-0.04	11	-	
Evapotranspiration coefficient	27	0.01	30	0.01	6	0.05	16		
R-SQUARE		0.08		0.08		0.60			

-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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters
1	SHF3	UNIFORM	.15 .95
2	SHF1	BOUNDED LOGNORMAL-N	-1.3 .59 .044 1
3	DWIBWT	TRIANGULAR	6 10 30
4	DM	TRIANGULAR	0 .15 .6
5	YV(1)	TRUNCATED LOGNORMAL-N	.56 .48 .001 .999
6	RWET(2)	TRIANGULAR	.06 .67 .95
7	WLAM	TRIANGULAR	5.1 18 84
8	MLINH	CONTINUOUS LINEAR	8 0 0 .000008 .0151 .000016 .1365 .00003 .8119
.00004	.9495	.00006 .9937	.000076 .9983 .0001 1
9	THICK0	UNIFORM	.15 3.8
10	H(1)	UNIFORM	.01 3.65
11	DENSCZ	BOUNDED NORMAL	1.5105 .159 1.019 2.002
12	TPCZ	BOUNDED NORMAL	.43 .06 .2446 .6154
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20	EPUZ(1)	BOUNDED NORMAL	.383 .061 .195 .572
21	HCUZ(1)	BETA	110 5870 1.398 1.842
22	BCZ	BOUNDED LOGNORMAL-N	-.0253 .216 .501 1.9
23	BSZ	BOUNDED LOGNORMAL-N	-.0253 .216 .501 1.9
24	UW	UNIFORM	957 1689
25	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253 .216 .501 1.9
26	RI	UNIFORM	.252 .618
27	EVAPTR	UNIFORM	.5 .75
28	DCACTC(1)	TRUNCATED LOGNORMAL-N	7.28 3.15 .001 .999
29	DCACTU1(1)	TRUNCATED LOGNORMAL-N	7.28 3.15 .001 .999
30	DCACTS(1)	TRUNCATED LOGNORMAL-N	7.28 3.15 .001 .999
31	DCACTC(3)	TRUNCATED LOGNORMAL-N	8.68 3.62 .001 .999
32	DCACTU1(3)	TRUNCATED LOGNORMAL-N	8.68 3.62 .001 .999
33	DCACTS(3)	TRUNCATED LOGNORMAL-N	8.68 3.62 .001 .999
34	DCACTC(4)	TRUNCATED LOGNORMAL-N	4.84 3.13 .001 .999
35	DCACTU1(4)	TRUNCATED LOGNORMAL-N	4.84 3.13 .001 .999
36	DCACTS(4)	TRUNCATED LOGNORMAL-N	4.84 3.13 .001 .999
37	BRTF(93,1)	TRUNCATED LOGNORMAL-N	-3.91 .9 .001 .999
38	BRTF(90,1)	TRUNCATED LOGNORMAL-N	-6.91 .9 .001 .999
39	BRTF(92,1)	TRUNCATED LOGNORMAL-N	-6.21 .9 .001 .999
40	BRTF(95,2)	TRUNCATED LOGNORMAL-N	-9.9 .2 .001 .999
41	BRTF(93,2)	TRUNCATED LOGNORMAL-N	-6.91 .7 .001 .999
42	BRTF(90,2)	TRUNCATED LOGNORMAL-N	-9.21 1 .001 .999
43	BRTF(92,2)	TRUNCATED LOGNORMAL-N	-7.13 .7 .001 .999
44	BRTF(95,3)	TRUNCATED LOGNORMAL-N	-13.12 .7 .001 .999
45	BRTF(93,3)	TRUNCATED LOGNORMAL-N	-11.51 .7 .001 .999
46	BRTF(90,3)	TRUNCATED LOGNORMAL-N	-12.21 .9 .001 .999
47	BRTF(92,3)	TRUNCATED LOGNORMAL-N	-7.82 .6 .001 .999
48	BBIO(95,1)	LOGNORMAL-N	3.4 1.1

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters
49	BBIO(93,1)	LOGNORMAL-N	3.4 1.1
50	BBIO(90,1)	LOGNORMAL-N	4.6 1.1
51	BBIO(92,1)	LOGNORMAL-N	2.3 1.1
52	DCACTC(2)	TRUNCATED LOGNORMAL-N	2.84 2.25 .001 .999
53	DCACTU1(2)	TRUNCATED LOGNORMAL-N	2.84 2.25 .001 .999
54	DCACTS(2)	TRUNCATED LOGNORMAL-N	2.84 2.25 .001 .999

Probabilistic Total Dose Summary

0 Nuclide	Peak (j)	Peak Time	Peak Dose	t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
Am-241	Min	0.00E+00	4.69E-02	4.69E-02	4.22E-04	3.79E-07	2.21E-07	1.32E-08	9.97E-14	0.00E+00	0.00E+00	
	Max	1.00E+03	2.45E+02	9.96E-01	1.06E+00	1.64E+00	3.57E+00	8.14E+00	3.63E+01	8.54E+00	1.08E+01	
	Avg	3.75E+00	1.07E+00	8.59E-01	8.54E-01	8.46E-01	8.23E-01	7.77E-01	6.70E-01	4.21E-01	1.03E-01	
	Std	4.08E+01	5.62E+00	2.13E-01	2.15E-01	2.19E-01	2.39E-01	3.27E-01	8.66E-01	3.06E-01	2.53E-01	
äALL	Min	0.00E+00	4.69E-02	4.69E-02	4.22E-04	3.79E-07	2.21E-07	1.32E-08	9.97E-14	0.00E+00	0.00E+00	
	Max	1.00E+03	2.45E+02	9.96E-01	1.06E+00	1.64E+00	3.57E+00	8.14E+00	3.63E+01	8.54E+00	1.08E+01	
	Avg	3.75E+00	1.07E+00	8.59E-01	8.54E-01	8.46E-01	8.23E-01	7.77E-01	6.70E-01	4.21E-01	1.03E-01	
	Std	4.08E+01	5.62E+00	2.13E-01	2.15E-01	2.19E-01	2.39E-01	3.27E-01	8.66E-01	3.06E-01	2.53E-01	

äALL is total dose summed for all nuclides.

Probabilistic results summary : Yankee Rowe Sensitivity Analysis=soil

File : Am-241_DCGL.RAD

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	8.592E-01

1 RESRAD Regression and Correlation output 12/11/03 10:52 Page: Coef 1

Title : Yankee Rowe Sensitivity Analysis=soil

Input File : Am-241_DCGL.RAD

Coefficients for peak of mean dose time Dose Coefficient = Repetition =	PCC		SRC		PRCC		SRRC	
	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	20	0.03	23	0.02	3	0.28	7	0.18
External gamma shielding factor	28	0.02	29	0.01	1	0.49	2	0.34
Well pump intake depth	14	-0.03	19	-0.02	11	-0.04	19	-0.03
Depth of soil mixing layer	23	-0.02	25	-0.02	27	-0.02	32	-0.01
Wet weight crop yield of fruit, grain and non-leafy vegetables	24	0.02	26	0.02	17	-0.03	24	-0.02
Wet foliar interception fraction of leafy vegetables	2	0.05	13	0.03	10	0.04	18	0.03
Weathering removal constant of all vegetation	54	0.00	54	0.00	8	-0.08	15	-0.05
Mass loading for inhalation	34	0.02	34	0.01	2	0.31	6	0.20
Thickness of contaminated zone	1	0.14	3	0.64	7	0.12	1	0.48
Thickness of Unsaturated zone 1	30	-0.02	10	-0.09	14	-0.04	10	-0.15
Density of contaminated zone	8	-0.04	8	-0.17	47	0.00	30	-0.01
Contaminated zone total porosity	13	-0.03	9	-0.15	54	0.00	49	0.00
Contaminated zone hydraulic conductivity	29	0.02	30	0.01	24	0.02	29	0.01
Density of saturated zone	12	-0.03	2	-0.73	28	-0.02	3	-0.32
Saturated zone total porosity	18	-0.03	6	-0.33	30	-0.02	9	-0.16
Saturated zone effective porosity	10	-0.03	5	-0.39	29	-0.02	8	-0.16
Saturated zone hydraulic conductivity	43	-0.01	43	-0.01	38	0.01	39	0.01
Density of Unsaturated zone 1	9	0.03	1	0.78	35	0.01	5	0.22
Total Porosity of Unsaturated zone 1	4	0.04	4	0.50	21	0.02	4	0.23
Effective Porosity of Unsaturated zone 1	19	0.03	7	0.32	53	0.00	40	0.00
Hydraulic Conductivity of Unsaturated zone 1	45	-0.01	45	0.00	51	0.00	53	0.00
Contaminated zone b parameter	26	-0.02	28	-0.02	16	-0.03	23	-0.02
Saturated zone b parameter	6	0.04	16	0.03	52	0.00	54	0.00
Well pumping rate	21	0.02	11	0.06	25	0.02	16	0.05
b Parameter of Unsaturated zone 1	37	-0.01	37	-0.01	12	-0.04	20	-0.03
Irrigation	27	-0.02	12	-0.05	18	-0.03	14	-0.06
Evapotranspiration coefficient	31	-0.02	31	-0.01	46	0.00	48	0.00
Kd of Am-241 in Contaminated Zone	47	0.00	47	0.00	4	0.17	11	0.10
Kd of Am-241 in Unsaturated Zone 1	40	-0.01	40	-0.01	42	-0.01	44	0.00
Kd of Am-241 in Saturated Zone	39	-0.01	38	-0.01	26	-0.02	31	-0.01
Kd of Th-229 in Contaminated Zone	16	0.03	21	0.02	31	0.01	33	0.01
Kd of Th-229 in Unsaturated Zone 1	11	-0.03	18	-0.02	9	0.04	17	0.03
Kd of Th-229 in Saturated Zone	48	0.00	48	0.00	50	0.00	52	0.00
Kd of U-233 in Contaminated Zone	33	0.02	33	0.01	20	0.03	26	0.02
Kd of U-233 in Unsaturated Zone 1	53	0.00	53	0.00	48	0.00	50	0.00
Kd of U-233 in Saturated Zone	41	-0.01	41	-0.01	34	-0.01	36	-0.01
Plant transfer factor for Np	25	-0.02	27	-0.02	23	-0.02	27	-0.01
Plant transfer factor for Th	35	-0.01	35	-0.01	15	-0.04	22	-0.02
Plant transfer factor for U	51	0.00	51	0.00	36	-0.01	37	-0.01
Meat transfer factor for Am	50	0.00	50	0.00	5	0.17	12	0.10
Meat transfer factor for Np	49	0.00	49	0.00	49	0.00	51	0.00
Meat transfer factor for Th	42	0.01	42	0.01	44	0.00	46	0.00
Meat transfer factor for U	5	0.04	15	0.03	32	0.01	34	0.01
Milk transfer factor for Am	44	-0.01	44	-0.01	6	0.13	13	0.08
Milk transfer factor for Np	32	0.02	32	0.01	39	-0.01	41	0.00
Milk transfer factor for Th	15	-0.03	20	-0.02	19	-0.03	25	-0.02
Milk transfer factor for U	7	0.04	17	0.03	37	-0.01	38	-0.01
Fish transfer factor for Am	46	0.00	46	0.00	22	-0.02	28	-0.01
Fish transfer factor for Np	22	-0.02	24	-0.02	33	-0.01	35	-0.01
Fish transfer factor for Th	3	-0.04	14	-0.03	43	0.00	45	0.00
Fish transfer factor for U	17	0.03	22	0.02	13	0.04	21	0.02
Kd of Np-237 in Contaminated Zone	36	0.01	36	0.01	41	0.01	43	0.00
Kd of Np-237 in Unsaturated Zone 1	52	0.00	52	0.00	40	0.01	42	0.00
Kd of Np-237 in Saturated Zone	38	0.01	39	0.01	45	0.00	47	0.00
R-SQUARE		0.54		0.54		0.63		0.63

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3	DWIBWT	TRIANGULAR	6	10	30					
4	DM	TRIANGULAR	0	.15	.6					
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999				
6	RWET(2)	TRIANGULAR	.06	.67	.95					
7	WLAM	TRIANGULAR	5.1	18	84					
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003 .8119
.00004	.9495	.00006 .9937	.000076	.9983	.0001	1				
9	H(1)	UNIFORM	.01	3.65						
10	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
11	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
12	HCCZ	BETA	110	5870	1.398	1.842				
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19	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572				
20	HCUZ(1)	BETA	110	5870	1.398	1.842				
21	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
22	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
23	UW	UNIFORM	957	1689						
24	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
25	RI	UNIFORM	.252	.618						
26	EVAPTR	UNIFORM	.5	.75						
27	DCACTC(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
28	DCACTU1(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
29	DCACTS(1)	TRUNCATED LOGNORMAL-N	2.4	3.22	.001	.999				
30	BRTF(6,1)	TRUNCATED LOGNORMAL-N	-3.6	.9	.001	.999				
31	BRTF(6,2)	TRUNCATED LOGNORMAL-N	-3.47	1	.001	.999				
32	BRTF(6,3)	TRUNCATED LOGNORMAL-N	-4.4	.9	.001	.999				
33	BBIO(6,1)	LOGNORMAL-N	10.8	1.1						

Probabilistic Total Dose Summary

ONuclide	Peak (j)	Peak Time	Peak Dose	t= 0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
C-14	Min	0.00E+00	2.61E+00	2.33E+00	1.52E-02	2.69E-07	5.90E-24	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Max	7.43E+02	4.84E+02	3.24E+02	4.44E+02	1.89E+02	9.86E+01	9.68E+01	1.13E+01	9.43E+00	2.42E+00
	Avg	1.69E+00	6.75E+00	4.52E+00	1.22E+00	4.79E-01	3.63E-01	1.48E-01	2.47E-02	8.26E-03	2.54E-03
	Std	2.02E+01	2.13E+01	9.96E+00	1.41E+01	5.94E+00	4.15E+00	2.61E+00	4.12E-01	2.17E-01	5.95E-02
äALL	Min	0.00E+00	2.61E+00	2.33E+00	1.52E-02	2.69E-07	5.90E-24	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Max	7.43E+02	4.84E+02	3.24E+02	4.44E+02	1.89E+02	9.86E+01	9.68E+01	1.13E+01	9.43E+00	2.42E+00
	Avg	1.69E+00	6.75E+00	4.52E+00	1.22E+00	4.79E-01	3.63E-01	1.48E-01	2.47E-02	8.26E-03	2.54E-03
	Std	2.02E+01	2.13E+01	9.96E+00	1.41E+01	5.94E+00	4.15E+00	2.61E+00	4.12E-01	2.17E-01	5.95E-02

äALL is total dose summed for all nuclides.

Probabilistic results summary : Yankee Rowe Sensitivity Analysis=soil

File : C14_DCGL.RAD

Peak of the mean dose (averaged over observations) at graphical times
 Repetition Time of peak mean dose Peak mean dose
 Years mrem/yr
 1 0.000E+00 4.516E+00

1 RESRAD Regression and Correlation output 11/26/03 15:11 Page: Coef 1

Title : Yankee Rowe Sensitivity Analysis=soil

Input File : C14_DCGL.RAD

Coefficients for peak of mean dose time Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig
Indoor dust filtration factor	23	0.01	23	0.01	25	0.01	29	0.00	
External gamma shielding factor	1	0.07	11	0.07	6	0.06	10	0.02	
Well pump intake depth	26	0.01	26	0.01	19	0.01	25	0.00	
Depth of soil mixing layer	19	0.02	21	0.02	17	0.01	24	0.01	
Wet weight crop yield of fruit, grain and non-leafy vegetables	25	0.01	25	0.01	26	0.00	30	0.00	
Wet foliar interception fraction of leafy vegetables	31	0.00	31	0.00	12	-0.03	18	-0.01	
Weathering removal constant of all vegetation	13	0.02	18	0.02	22	0.01	27	0.00	
Mass loading for inhalation	21	0.02	22	0.02	31	0.00	31	0.00	
Thickness of Unsaturated zone 1	2	-0.06	12	-0.05	4	-0.08	8	-0.03	
Density of contaminated zone	11	0.03	7	0.18	2	0.35	1	1.00	
Contaminated zone total porosity	20	0.02	8	0.12	9	0.04	3	0.11	
Contaminated zone hydraulic conductivity	10	0.03	16	0.03	11	-0.04	16	-0.01	
Density of saturated zone	18	0.02	2	0.66	23	0.01	4	0.08	
Saturated zone total porosity	22	0.01	6	0.26	28	0.00	11	0.02	
Saturated zone effective porosity	16	0.02	5	0.39	20	0.01	6	0.06	
Saturated zone hydraulic conductivity	30	0.00	30	0.00	21	0.01	26	0.00	
Density of Unsaturated zone 1	7	0.03	1	0.95	30	0.00	7	0.03	
Total Porosity of Unsaturated zone 1	9	0.03	4	0.47	33	0.00	33	0.00	
Effective Porosity of Unsaturated zone 1	6	0.03	3	0.50	29	0.00	12	0.02	
Hydraulic Conductivity of Unsaturated zone 1	17	0.02	20	0.02	16	0.02	22	0.01	
Contaminated zone b parameter	4	0.04	14	0.04	14	0.02	20	0.01	
Saturated zone b parameter	24	0.01	24	0.01	10	0.04	15	0.02	
Well pumping rate	15	-0.02	10	-0.08	27	0.00	23	-0.01	
b Parameter of Unsaturated zone 1	3	0.04	13	0.04	15	-0.02	21	-0.01	
Irrigation	8	0.03	9	0.10	18	-0.01	17	-0.01	
Evapotranspiration coefficient	14	0.02	19	0.02	7	0.05	13	0.02	
Kd of C-14 in Contaminated Zone	29	0.00	29	0.00	1	0.49	2	0.22	
Kd of C-14 in Unsaturated Zone 1	28	-0.01	28	-0.01	3	-0.16	5	-0.06	
Kd of C-14 in Saturated Zone	27	-0.01	27	-0.01	5	-0.07	9	-0.03	
Plant transfer factor for C	33	0.00	33	0.00	13	-0.03	19	-0.01	
Meat transfer factor for C	32	0.00	32	0.00	8	-0.05	14	-0.02	
Milk transfer factor for C	12	0.02	17	0.02	24	0.01	28	0.00	
Fish transfer factor for C	5	0.04	15	0.04	32	0.00	32	0.00	
R-SQUARE		0.02		0.02		0.84		0.84	

-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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters
1	SHF3	UNIFORM	.15 .95
2	DWIBWT	TRIANGULAR	6 10 30
3	DM	TRIANGULAR	0 .15 .6
4	YV(1)	TRUNCATED LOGNORMAL-N	.56 .48 .001 .999
5	RWET(2)	TRIANGULAR	.06 .67 .95
6	WLAM	TRIANGULAR	5.1 18 84
7	MLINH	CONTINUOUS LINEAR	8 0 0 .000008 .0151 .000016 .1365 .00003 .8119
.00004	.9495	.00006 .9937	.000076 .9983
8	THICK0	UNIFORM	.15 3.8
9	H(1)	UNIFORM	.01 3.65
10	DENSCZ	BOUNDED NORMAL	1.5105 .159 1.019 2.002
11	TPCZ	BOUNDED NORMAL	.43 .06 .2446 .6154
12	HCCZ	BETA	110 5870 1.398 1.842
13	DENSAQ	BOUNDED NORMAL	1.5105 .159 1.019 2.002
14	TPSZ	BOUNDED NORMAL	.43 .06 .2446 .6154
15	EPSZ	BOUNDED NORMAL	.383 .061 .195 .572
16	HCSZ	BETA	110 5870 1.398 1.842
17	DENSUZ(1)	BOUNDED NORMAL	1.5105 .159 1.019 2.002
18	TPUZ(1)	BOUNDED NORMAL	.43 .06 .2446 .6154
19	EPUZ(1)	BOUNDED NORMAL	.383 .061 .195 .572
20	HCUZ(1)	BETA	110 5870 1.398 1.842
21	BCZ	BOUNDED LOGNORMAL-N	-.0253 .216 .501 1.9
22	BSZ	BOUNDED LOGNORMAL-N	-.0253 .216 .501 1.9
23	UW	UNIFORM	957 1689
24	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253 .216 .501 1.9
25	RI	UNIFORM	.252 .618
26	EVAPTR	UNIFORM	.5 .75
27	DCACTC(4)	TRUNCATED LOGNORMAL-N	8.82 1.82 .001 .999
28	DCACTU1(4)	TRUNCATED LOGNORMAL-N	8.82 1.82 .001 .999
29	DCACTS(4)	TRUNCATED LOGNORMAL-N	8.82 1.82 .001 .999
30	DCACTC(1)	TRUNCATED LOGNORMAL-N	6.72 3.22 .001 .999
31	DCACTU1(1)	TRUNCATED LOGNORMAL-N	6.72 3.22 .001 .999
32	DCACTS(1)	TRUNCATED LOGNORMAL-N	6.72 3.22 .001 .999
33	DCACTC(2)	TRUNCATED LOGNORMAL-N	7.28 3.15 .001 .999
34	DCACTU1(2)	TRUNCATED LOGNORMAL-N	7.28 3.15 .001 .999
35	DCACTS(2)	TRUNCATED LOGNORMAL-N	7.28 3.15 .001 .999
36	DCACTC(5)	TRUNCATED LOGNORMAL-N	5.94 3.22 .001 .999
37	DCACTU1(5)	TRUNCATED LOGNORMAL-N	5.94 3.22 .001 .999
38	DCACTS(5)	TRUNCATED LOGNORMAL-N	5.94 3.22 .001 .999
39	DCACTC(6)	TRUNCATED LOGNORMAL-N	6.86 1.89 .001 .999
40	DCACTU1(6)	TRUNCATED LOGNORMAL-N	6.86 1.89 .001 .999
41	DCACTS(6)	TRUNCATED LOGNORMAL-N	6.86 1.89 .001 .999
42	DCACTC(7)	TRUNCATED LOGNORMAL-N	4.84 3.13 .001 .999
43	DCACTU1(7)	TRUNCATED LOGNORMAL-N	4.84 3.13 .001 .999
44	DCACTS(7)	TRUNCATED LOGNORMAL-N	4.84 3.13 .001 .999
45	BRTF(89,1)	TRUNCATED LOGNORMAL-N	-6.91 1.1 .001 .999
46	BRTF(95,1)	TRUNCATED LOGNORMAL-N	-6.91 .9 .001 .999
47	BRTF(91,1)	TRUNCATED LOGNORMAL-N	-4.61 1.1 .001 .999
48	BRTF(94,1)	TRUNCATED LOGNORMAL-N	-6.91 .9 .001 .999

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters
49	BRTF(92,1)	TRUNCATED LOGNORMAL-N	-6.21 .9 .001 .999
50	BRTF(96,2)	TRUNCATED LOGNORMAL-N	-10.82 1 .001 .999
51	BRTF(89,2)	TRUNCATED LOGNORMAL-N	-10.82 1 .001 .999
52	BRTF(95,2)	TRUNCATED LOGNORMAL-N	-9.9 .2 .001 .999
53	BRTF(91,2)	TRUNCATED LOGNORMAL-N	-12.21 1 .001 .999
54	BRTF(94,2)	TRUNCATED LOGNORMAL-N	-9.21 .2 .001 .999
55	BRTF(92,2)	TRUNCATED LOGNORMAL-N	-7.13 .7 .001 .999
56	BRTF(96,3)	TRUNCATED LOGNORMAL-N	-13.12 .9 .001 .999
57	BRTF(89,3)	TRUNCATED LOGNORMAL-N	-13.12 .9 .001 .999
58	BRTF(95,3)	TRUNCATED LOGNORMAL-N	-13.12 .7 .001 .999
59	BRTF(91,3)	TRUNCATED LOGNORMAL-N	-12.21 .9 .001 .999
60	BRTF(94,3)	TRUNCATED LOGNORMAL-N	-13.82 .5 .001 .999
61	BRTF(92,3)	TRUNCATED LOGNORMAL-N	-7.82 .6 .001 .999
62	BBIO(96,1)	LOGNORMAL-N	3.4 1.1
63	BBIO(89,1)	LOGNORMAL-N	2.7 1.1
64	BBIO(95,1)	LOGNORMAL-N	3.4 1.1
65	BBIO(91,1)	LOGNORMAL-N	2.3 1.1
66	BBIO(94,1)	LOGNORMAL-N	3.4 1.1
67	BBIO(92,1)	LOGNORMAL-N	2.3 1.1

Probabilistic Total Dose Summary

ONuclide	Peak (j)	Time	Peak Dose	t=	DOSE(j,t), mrem/yr						
					0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02
Cm-243	Min	0.00E+00	3.00E-01	3.00E-01	2.92E-01	2.77E-01	2.30E-01	1.28E-01	1.14E-02	0.00E+00	0.00E+00
	Max	0.00E+00	8.89E-01	8.89E-01	8.68E-01	8.26E-01	6.97E-01	4.29E-01	8.46E-02	8.93E-03	7.63E-03
	Avg	0.00E+00	7.85E-01	7.85E-01	7.66E-01	7.29E-01	6.14E-01	3.76E-01	6.78E-02	1.17E-03	4.80E-04
	Std	0.00E+00	1.45E-01	1.45E-01	1.41E-01	1.35E-01	1.15E-01	7.32E-02	1.51E-02	8.44E-04	6.77E-04
äALL	Min	0.00E+00	3.00E-01	3.00E-01	2.92E-01	2.77E-01	2.30E-01	1.28E-01	1.14E-02	0.00E+00	0.00E+00
	Max	0.00E+00	8.89E-01	8.89E-01	8.68E-01	8.26E-01	6.97E-01	4.29E-01	8.46E-02	8.93E-03	7.63E-03
	Avg	0.00E+00	7.85E-01	7.85E-01	7.66E-01	7.29E-01	6.14E-01	3.76E-01	6.78E-02	1.17E-03	4.80E-04
	Std	0.00E+00	1.45E-01	1.45E-01	1.41E-01	1.35E-01	1.15E-01	7.32E-02	1.51E-02	8.44E-04	6.77E-04

äALL is total dose summed for all nuclides.

Probabilistic results summary : Yankee Rowe Sensitivity Analysis=soil

File : Cm-243_DCGL.RAD

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	7.850E-01

1 RESRAD Regression and Correlation output 12/03/03 13:20 Page: Coef 1

Title : Yankee Rowe Sensitivity Analysis=soil

Input File : Cm-243_DCGL.RAD

Coefficients for peak of mean dose time Dose Coefficient = Repetition =	PCC		SRC		PRCC		SRRC	
	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	46	0.01	47	0.01	3	0.34	8	0.22
Well pump intake depth	9	0.05	17	0.03	14	0.04	22	0.02
Depth of soil mixing layer	6	-0.06	16	-0.04	8	-0.07	17	-0.04
Wet weight crop yield of fruit, grain and non-leafy vegetables	51	0.01	51	0.00	7	-0.07	16	-0.04
Wet foliar interception fraction of leafy vegetables	59	0.00	59	0.00	67	0.00	67	0.00
Weathering removal constant of all vegetation	61	0.00	61	0.00	6	-0.10	15	-0.06
Mass loading for inhalation	4	0.06	14	0.04	2	0.40	5	0.27
Thickness of contaminated zone	1	0.14	1	0.67	5	0.14	1	0.61
Thickness of Unsaturated zone 1	44	-0.01	10	-0.06	61	0.00	34	-0.01
Density of contaminated zone	7	0.06	5	0.27	11	0.04	12	0.17
Contaminated zone total porosity	8	0.05	6	0.26	10	0.04	11	0.17
Contaminated zone hydraulic conductivity	3	0.06	13	0.04	9	0.05	19	0.03
Density of saturated zone	18	-0.02	2	-0.57	27	-0.02	2	-0.45
Saturated zone total porosity	22	-0.02	7	-0.25	23	-0.02	6	-0.25
Saturated zone effective porosity	17	-0.03	4	-0.31	31	-0.02	9	-0.20
Saturated zone hydraulic conductivity	57	0.00	57	0.00	52	0.01	53	0.00
Density of Unsaturated zone 1	34	0.02	3	0.40	28	0.02	3	0.42
Total Porosity of Unsaturated zone 1	45	0.01	9	0.15	25	0.02	7	0.24
Effective Porosity of Unsaturated zone 1	24	0.02	8	0.25	32	0.02	10	0.19
Hydraulic Conductivity of Unsaturated zone 1	14	-0.03	23	-0.02	20	-0.03	27	-0.02
Contaminated zone b parameter	55	-0.01	55	0.00	33	0.02	35	0.01
Saturated zone b parameter	43	-0.01	46	-0.01	66	0.00	66	0.00
Well pumping rate	26	0.02	12	0.05	18	0.03	14	0.06
b Parameter of Unsaturated zone 1	19	-0.02	26	-0.02	44	-0.01	45	-0.01
Irrigation	49	-0.01	20	-0.02	34	-0.02	18	-0.04
Evapotranspiration coefficient	50	-0.01	50	-0.01	60	0.00	61	0.00
Kd of Cm-243 in Contaminated Zone	54	-0.01	54	0.00	48	-0.01	49	-0.01
Kd of Cm-243 in Unsaturated Zone 1	12	0.03	21	0.02	12	0.04	20	0.02
Kd of Cm-243 in Saturated Zone	40	-0.01	43	-0.01	62	0.00	62	0.00
Kd of Ac-227 in Contaminated Zone	10	-0.04	18	-0.03	29	0.02	32	0.01
Kd of Ac-227 in Unsaturated Zone 1	31	0.02	35	0.01	63	0.00	63	0.00
Kd of Ac-227 in Saturated Zone	42	0.01	45	0.01	30	-0.02	33	-0.01
Kd of Am-243 in Contaminated Zone	2	-0.07	11	-0.05	50	-0.01	51	-0.01
Kd of Am-243 in Unsaturated Zone 1	39	-0.01	42	-0.01	54	0.01	55	0.00
Kd of Am-243 in Saturated Zone	37	0.01	40	0.01	40	0.02	41	0.01
Kd of Pa-231 in Contaminated Zone	67	0.00	67	0.00	53	-0.01	54	0.00
Kd of Pa-231 in Unsaturated Zone 1	58	0.00	58	0.00	16	-0.03	24	-0.02
Kd of Pa-231 in Saturated Zone	62	0.00	62	0.00	41	0.02	42	0.01
Kd of Pu-239 in Contaminated Zone	53	-0.01	53	0.00	17	-0.03	25	-0.02
Kd of Pu-239 in Unsaturated Zone 1	11	-0.04	19	-0.03	13	-0.04	21	-0.02
Kd of Pu-239 in Saturated Zone	64	0.00	64	0.00	38	-0.02	39	-0.01
Kd of U-235 in Contaminated Zone	28	0.02	31	0.01	35	-0.02	36	-0.01
Kd of U-235 in Unsaturated Zone 1	30	-0.02	34	-0.01	22	-0.02	29	-0.01
Kd of U-235 in Saturated Zone	66	0.00	66	0.00	39	-0.02	40	-0.01
Plant transfer factor for Ac	35	0.01	38	0.01	24	0.02	30	0.01
Plant transfer factor for Am	21	0.02	28	0.01	58	0.00	59	0.00
Plant transfer factor for Pa	33	0.02	37	0.01	56	0.01	57	0.00
Plant transfer factor for Pu	25	0.02	30	0.01	51	-0.01	52	-0.01
Plant transfer factor for U	60	0.00	60	0.00	65	0.00	65	0.00
Meat transfer factor for Cm	5	0.06	15	0.04	1	0.45	4	0.31
Meat transfer factor for Ac	65	0.00	65	0.00	59	0.00	60	0.00
Meat transfer factor for Am	63	0.00	63	0.00	42	-0.01	43	-0.01
Meat transfer factor for Pa	56	0.00	56	0.00	46	0.01	47	0.01
Meat transfer factor for Pu	16	-0.03	25	-0.02	26	-0.02	31	-0.01
Meat transfer factor for U	47	-0.01	48	-0.01	15	-0.03	23	-0.02
Milk transfer factor for Cm	20	0.02	27	0.02	4	0.19	13	0.12
Milk transfer factor for Ac	27	0.02	32	0.01	57	-0.01	58	0.00
Milk transfer factor for Am	15	-0.03	24	-0.02	21	-0.02	28	-0.02
Milk transfer factor for Pa	36	0.01	39	0.01	49	-0.01	50	-0.01
Milk transfer factor for Pu	38	0.01	41	0.01	45	0.01	46	0.01
Milk transfer factor for U	32	0.02	36	0.01	19	0.03	26	0.02
Fish transfer factor for Cm	29	-0.02	33	-0.01	43	0.01	44	0.01
Fish transfer factor for Ac	13	-0.03	22	-0.02	37	-0.02	38	-0.01
Fish transfer factor for Am	41	0.01	44	0.01	64	0.00	64	0.00
Fish transfer factor for Pa	52	-0.01	52	0.00	36	-0.02	37	-0.01
Fish transfer factor for Pu	23	0.02	29	0.01	55	0.01	56	0.00
Fish transfer factor for U	48	0.01	49	0.01	47	0.01	48	0.01
R-SQUARE		0.54		0.54		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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters																	
1	SHF3	UNIFORM	.15	.95																
2	DWIBWT	TRIANGULAR	6	10	30															
3	DM	TRIANGULAR	0	.15	.6															
4	DROOT	UNIFORM	.3	3.8																
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999														
6	RWET(2)	TRIANGULAR	.06	.67	.95															
7	WLAM	TRIANGULAR	5.1	18	84															
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119									
.00004	.9495	.00006	.9937	.000076	.9983	.0001	1													
9	THICK0	UNIFORM	.15	3.8																
10	H(1)	UNIFORM	.01	3.65																
11	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
12	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154														
13	HCCZ	BETA	110	5870	1.398	1.842														
14	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
15	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154														
16	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572														
17	HCSZ	BETA	110	5870	1.398	1.842														
18	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
19	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154														
20	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572														
21	HCUZ(1)	BETA	110	5870	1.398	1.842														
22	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
23	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
24	UW	UNIFORM	957	1689																
25	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
26	RI	UNIFORM	.252	.618																
27	EVAPTR	UNIFORM	.5	.75																
28	DCACTC(1)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999														
29	DCACTU1(1)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999														
30	DCACTS(1)	TRUNCATED LOGNORMAL-N	5.46	2.53	.001	.999														
31	BRTF(27,3)	TRUNCATED LOGNORMAL-N	-6.21	.7	.001	.999														
32	BBIO(27,1)	LOGNORMAL-N	5.7	1.1																

0

Nuclide	Peak (j)	Peak Time	Peak Dose	Probabilistic Total Dose Summary																	
				DOSE(j,t), mrem/yr																	
Co-60				0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03										
Min	0.00E+00	1.08E+00	1.08E+00	6.71E-03	2.54E-07	8.41E-23	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00										
Max	0.00E+00	7.29E+00	7.29E+00	6.38E+00	4.89E+00	1.92E+00	1.39E-01	1.39E-05	5.27E-17	0.00E+00											
Avg	0.00E+00	6.21E+00	6.21E+00	5.39E+00	4.09E+00	1.57E+00	1.07E-01	9.49E-06	2.95E-17	0.00E+00											
Std	0.00E+00	4.24E-01	4.24E-01	4.94E-01	4.99E-01	2.89E-01	2.88E-02	3.84E-06	1.75E-17	0.00E+00											
äALL																					
Min	0.00E+00	1.08E+00	1.08E+00	6.71E-03	2.54E-07	8.41E-23	0.00E+00	0.00E+00	0.00E+00	0.00E+00											
Max	0.00E+00	7.29E+00	7.29E+00	6.38E+00	4.89E+00	1.92E+00	1.39E-01	1.39E-05	5.27E-17	0.00E+00											
Avg	0.00E+00	6.21E+00	6.21E+00	5.39E+00	4.09E+00	1.57E+00	1.07E-01	9.49E-06	2.95E-17	0.00E+00											
Std	0.00E+00	4.24E-01	4.24E-01	4.94E-01	4.99E-01	2.89E-01	2.88E-02	3.84E-06	1.75E-17	0.00E+00											

äALL is total dose summed for all nuclides.

Peak of the mean dose (averaged over observations) at graphical times
 Repetition Time of peak mean dose Peak mean dose
 Years mrem/yr
 1 0.000E+00 6.210E+00

1 RESRAD Regression and Correlation output 11/26/03 15:38 Page: Coef 1
 Title : Yankee Rowe Sensitivity Analysis=soil
 Input File : Co-60_DCGL.RAD

Coefficients for peak of mean dose time Dose
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	16	0.02	20	0.01	25	0.01	29	0.00
Well pump intake depth	8	0.03	15	0.02	26	0.01	30	0.00
Depth of soil mixing layer	32	0.00	32	0.00	16	-0.02	22	-0.01
Depth of roots	1	-0.47	5	-0.34	1	-0.69	2	-0.44
Wet weight crop yield of fruit, grain and non-leafy vegetables	26	0.01	28	0.01	12	-0.02	19	-0.01
Wet foliar interception fraction of leafy vegetables	24	0.01	26	0.01	5	0.04	13	0.02
Weathering removal constant of all vegetation	10	0.03	16	0.02	23	0.01	27	0.00
Mass loading for inhalation	7	-0.04	14	-0.03	20	-0.01	25	-0.01
Thickness of contaminated zone	3	0.15	1	0.64	4	0.22	1	0.72
Thickness of Unsaturated zone 1	29	0.00	17	-0.02	22	0.01	11	0.03
Density of contaminated zone	4	0.08	4	0.36	13	0.02	8	0.06
Contaminated zone total porosity	5	0.07	6	0.33	18	0.01	9	0.04
Contaminated zone hydraulic conductivity	19	0.02	21	0.01	21	0.01	26	0.01
Density of saturated zone	11	0.02	2	0.50	7	0.03	3	0.39
Saturated zone total porosity	20	0.02	10	0.18	8	0.03	5	0.20
Saturated zone effective porosity	9	0.03	7	0.32	9	0.03	6	0.20
Saturated zone hydraulic conductivity	30	0.00	30	0.00	24	0.01	28	0.00
Density of Unsaturated zone 1	17	-0.02	3	-0.36	31	0.00	12	0.02
Total Porosity of Unsaturated zone 1	23	-0.01	11	-0.14	29	0.00	14	0.01
Effective Porosity of Unsaturated zone 1	15	-0.02	8	-0.22	30	0.00	15	0.01
Hydraulic Conductivity of Unsaturated zone 1	21	0.02	23	0.01	15	0.02	21	0.01
Contaminated zone b parameter	27	-0.01	29	-0.01	19	-0.01	24	-0.01
Saturated zone b parameter	18	-0.02	22	-0.01	27	-0.01	31	0.00
Well pumping rate	14	-0.02	12	-0.04	28	0.01	17	0.01
b Parameter of Unsaturated zone 1	31	0.00	31	0.00	11	-0.02	18	-0.01
Irrigation	28	0.00	25	0.01	6	-0.03	10	-0.04
Evapotranspiration coefficient	13	0.02	19	0.01	17	0.02	23	0.01
Kd of Co-60 in Contaminated Zone	6	0.05	13	0.03	3	0.23	7	0.11
Kd of Co-60 in Unsaturated Zone 1	25	-0.01	27	-0.01	14	-0.02	20	-0.01
Kd of Co-60 in Saturated Zone	12	0.02	18	0.01	32	0.00	32	0.00
Milk transfer factor for Co	2	0.31	9	0.21	2	0.58	4	0.33
Fish transfer factor for Co	22	0.01	24	0.01	10	-0.02	16	-0.01
R-SQUARE		0.60		0.60		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.

Peak of the mean dose (averaged over observations) at graphical times
 Repetition Time of peak mean dose Peak mean dose
 Years mrem/yr
 1 0.000E+00 5.023E+00

1 RESRAD Regression and Correlation output 12/02/03 09:56 Page: Coef 1
 Title : Yankee Rowe Sensitivity Analysis=soil
 Input File : Cs-134_DCGL.RAD

Coefficients for peak of mean dose time Dose
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	27	0.00	28	0.00	20	-0.02	24	-0.01
Well pump intake depth	3	0.04	12	0.03	14	0.02	21	0.01
Depth of soil mixing layer	7	0.03	14	0.02	7	0.04	15	0.02
Wet weight crop yield of fruit, grain and non-leafy vegetables	12	-0.02	17	-0.02	11	-0.03	18	-0.01
Wet foliar interception fraction of leafy vegetables	11	0.02	16	0.02	12	0.03	19	0.01
Weathering removal constant of all vegetation	19	-0.01	22	-0.01	3	-0.16	8	-0.09
Mass loading for inhalation	2	0.06	10	0.04	5	0.06	14	0.03
Thickness of contaminated zone	1	0.14	1	0.68	2	0.16	1	0.61
Thickness of Unsaturated zone 1	22	-0.01	11	-0.04	15	-0.02	10	-0.08
Density of contaminated zone	6	-0.03	7	-0.14	9	-0.04	7	-0.13
Contaminated zone total porosity	5	-0.03	6	-0.16	6	-0.04	6	-0.16
Contaminated zone hydraulic conductivity	20	-0.01	23	-0.01	22	-0.01	27	-0.01
Density of saturated zone	23	-0.01	5	-0.17	16	0.02	3	0.37
Saturated zone total porosity	18	-0.01	8	-0.14	18	0.02	5	0.18
Saturated zone effective porosity	25	0.00	9	-0.05	17	0.02	4	0.18
Saturated zone hydraulic conductivity	21	-0.01	24	-0.01	19	-0.02	23	-0.01
Density of Unsaturated zone 1	10	-0.02	2	-0.55	28	0.00	9	-0.08
Total Porosity of Unsaturated zone 1	8	-0.03	3	-0.31	24	-0.01	11	-0.06
Effective Porosity of Unsaturated zone 1	14	-0.02	4	-0.25	29	0.00	13	-0.04
Hydraulic Conductivity of Unsaturated zone 1	24	0.00	26	0.00	26	-0.01	29	0.00
Contaminated zone b parameter	17	0.01	21	0.01	30	0.00	30	0.00
Saturated zone b parameter	9	0.02	15	0.02	13	0.03	20	0.01
Well pumping rate	30	0.00	29	0.00	25	-0.01	22	-0.01
b Parameter of Unsaturated zone 1	4	0.03	13	0.02	21	0.01	26	0.01
Irrigation	29	0.00	25	-0.01	27	0.00	25	-0.01
Evapotranspiration coefficient	26	0.00	27	0.00	4	0.10	12	0.05
Kd of Cs-134 in Contaminated Zone	16	-0.01	20	-0.01	1	0.67	2	0.48
Kd of Cs-134 in Unsaturated Zone 1	13	0.02	18	0.02	23	0.01	28	0.01
Kd of Cs-134 in Saturated Zone	15	0.02	19	0.01	10	0.03	17	0.02
Fish transfer factor for Cs	28	0.00	30	0.00	8	-0.04	16	-0.02
R-SQUARE		0.53		0.53		0.71		0.71

-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.

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters							
1	SHF3	UNIFORM	.15	.95						
2	DWIBWT	TRIANGULAR	6	10	30					
3	DM	TRIANGULAR	0	.15	.6					
4	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999				
5	RWET(2)	TRIANGULAR	.06	.67	.95					
6	WLAM	TRIANGULAR	5.1	18	84					
7	MLNH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	
.00003	.8119	.00004 .9495	.00006 .9937	.000076	.9983	.0001	1			
8	THICKO	UNIFORM	.15	3.8						
9	H(1)	UNIFORM	.01	3.65						
10	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
11	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
12	HCCZ	BETA	110	5870	1.398	1.842				
13	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
14	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
15	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572				
16	HCSZ	BETA	110	5870	1.398	1.842				
17	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
18	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154				
19	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572				
20	HCUZ(1)	BETA	110	5870	1.398	1.842				
21	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
22	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
23	UW	UNIFORM	957	1689						
24	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
25	RI	UNIFORM	.252	.618						
26	EVAPTR	UNIFORM	.5	.75						
27	DCACTC(1)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
28	DCACTU1(1)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
29	DCACTS(1)	TRUNCATED LOGNORMAL-N	6.1	2.33	.001	.999				
30	BBIO(55,1)	LOGNORMAL-N	7.6	.7						

0

0Nuclide (j)	Peak Time	Peak Dose	t=	Probabilistic Total Dose Summary									
				0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03		
Cs-137													
Min	0.00E+00	1.36E+00	1.36E+00	8.42E-01	3.23E-01	1.13E-02	7.83E-07	2.06E-21	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	3.22E+01	4.91E+00	3.14E+00	3.07E+00	3.04E+00	3.46E+00	4.89E+00	1.07E+00	6.57E-03	3.51E-10	3.51E-10	3.51E-10	3.51E-10
Avg	3.95E-02	2.92E+00	2.92E+00	2.84E+00	2.69E+00	2.25E+00	1.36E+00	2.49E-01	2.08E-03	1.34E-10	1.34E-10	1.34E-10	1.34E-10
Std	9.04E-01	4.28E-01	4.25E-01	4.28E-01	4.35E-01	4.30E-01	3.43E-01	8.74E-02	1.05E-03	1.13E-10	1.13E-10	1.13E-10	1.13E-10
äALL													
Min	0.00E+00	1.36E+00	1.36E+00	8.42E-01	3.23E-01	1.13E-02	7.83E-07	2.06E-21	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	3.22E+01	4.91E+00	3.14E+00	3.07E+00	3.04E+00	3.46E+00	4.89E+00	1.07E+00	6.57E-03	3.51E-10	3.51E-10	3.51E-10	3.51E-10
Avg	3.95E-02	2.92E+00	2.92E+00	2.84E+00	2.69E+00	2.25E+00	1.36E+00	2.49E-01	2.08E-03	1.34E-10	1.34E-10	1.34E-10	1.34E-10
Std	9.04E-01	4.28E-01	4.25E-01	4.28E-01	4.35E-01	4.30E-01	3.43E-01	8.74E-02	1.05E-03	1.13E-10	1.13E-10	1.13E-10	1.13E-10

äALL is total dose summed for all nuclides.

Peak of the mean dose (averaged over observations) at graphical times
 Repetition Time of peak mean dose Peak mean dose
 Years mrem/yr
 1 0.000E+00 2.917E+00
 1 RESRAD Regression and Correlation output 11/26/03 16:27 Page: Coef 1
 Title : Yankee Rowe Sensitivity Analysis=soil
 Input File : Cs-137_DCGL.RAD

Coefficients for peak of mean dose time Dose		PCC		SRC		PRCC		SRRC	
Coefficient =	Repetition =	1	1	1	1	1	1	1	1
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	
Coeff									
Indoor dust filtration factor		27	0.00	28	0.00	20	-0.02	25	-
0.01 Well pump intake depth		3	0.04	12	0.03	14	0.02	21	
0.01 Depth of soil mixing layer		6	0.03	14	0.02	8	0.04	16	
0.02 Wet weight crop yield of fruit, grain and non-leafy vegetables		12	-0.03	17	-0.02	10	-0.03	17	-
0.02 Wet foliar interception fraction of leafy vegetables		11	0.03	16	0.02	13	0.03	20	
0.01 Weathering removal constant of all vegetation		20	-0.01	23	-0.01	2	-0.19	8	-
0.10 Mass loading for inhalation		2	0.05	11	0.04	5	0.06	14	
0.03 Thickness of contaminated zone		1	0.15	1	0.68	3	0.16	1	
0.61 Thickness of Unsaturated zone 1		21	-0.01	9	-0.04	16	-0.02	10	-
0.08 Density of contaminated zone		7	-0.03	7	-0.14	9	-0.04	7	-
0.14 Contaminated zone total porosity		5	-0.03	5	-0.16	6	-0.05	6	-
0.16 Contaminated zone hydraulic conductivity		22	-0.01	24	-0.01	22	-0.01	27	-
0.01 Density of saturated zone		23	-0.01	6	-0.15	15	0.02	3	
0.37 Saturated zone total porosity		18	-0.01	8	-0.13	18	0.02	5	
0.18 Saturated zone effective porosity		26	0.00	10	-0.04	17	0.02	4	
0.18 Saturated zone hydraulic conductivity		19	-0.01	22	-0.01	19	-0.02	24	-
0.01 Density of Unsaturated zone 1		9	-0.03	2	-0.57	28	-0.01	9	-
0.09 Total Porosity of Unsaturated zone 1		8	-0.03	3	-0.32	24	-0.01	11	-
0.06 Effective Porosity of Unsaturated zone 1		14	-0.02	4	-0.26	29	0.00	13	-
0.04 Hydraulic Conductivity of Unsaturated zone 1		24	0.00	25	0.00	26	-0.01	29	
0.00 Contaminated zone b parameter		17	0.02	21	0.01	30	0.00	30	
0.00 Saturated zone b parameter		10	0.03	15	0.02	12	0.03	19	
0.01 Well pumping rate		30	0.00	30	0.00	27	-0.01	23	-
0.01 b Parameter of Unsaturated zone 1		4	0.03	13	0.02	21	0.01	26	
0.01 Irrigation		29	0.00	26	0.00	25	-0.01	22	-
0.01 Evapotranspiration coefficient		25	0.00	27	0.00	4	0.10	12	
0.05 Kd of Cs-137 in Contaminated Zone		15	-0.02	19	-0.01	1	0.66	2	
0.48 Kd of Cs-137 in Unsaturated Zone 1		13	0.02	18	0.02	23	0.01	28	
0.01 Kd of Cs-137 in Saturated Zone		16	0.02	20	0.01	11	0.03	18	
0.02 Fish transfer factor for Cs		28	0.00	29	0.00	7	-0.04	15	-
0.02									
R-SQUARE		0.53		0.53		0.71			
0.71									

-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.

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters							
1	SHF3	UNIFORM	.15	.95						
2	DWIBWT	TRIANGULAR	6	10	30					
3	DM	TRIANGULAR	0	.15	.6					
4	DROOT	UNIFORM	.3	3.8						
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999				
6	RWET(2)	TRIANGULAR	.06	.67	.95					
7	WLAM	TRIANGULAR	5.1	18	84					
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	
.00003	.8119	.00004 .9495 .00006 .9937	.000076	.9983	.0001	1				
9	THICK0	UNIFORM	.15	3.8						
10	H(1)	UNIFORM	.01	3.65						
11	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
12	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
13	HCCZ	BETA	110	5870	1.398	1.842				
14	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
15	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
16	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572				
17	HCSZ	BETA	110	5870	1.398	1.842				
18	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
19	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154				
20	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572				
21	HCUZ(1)	BETA	110	5870	1.398	1.842				
22	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
23	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
24	UW	UNIFORM	957	1689						
25	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
26	RI	UNIFORM	.252	.618						
27	EVAPTR	UNIFORM	.5	.75						
28	BRTF(63,1)	TRUNCATED LOGNORMAL-N	-6.21	1.1	.001	.999				
29	BRTF(64,1)	TRUNCATED LOGNORMAL-N	-6.21	1.1	.001	.999				
30	BRTF(64,2)	TRUNCATED LOGNORMAL-N	-6.21	1	.001	.999				
31	BRTF(63,2)	TRUNCATED LOGNORMAL-N	-6.21	1	.001	.999				
32	BRTF(63,3)	TRUNCATED LOGNORMAL-N	-9.72	.9	.001	.999				
33	BRTF(64,3)	TRUNCATED LOGNORMAL-N	-9.72	.9	.001	.999				
34	BBIO(63,1)	LOGNORMAL-N	3.9	1.1						
35	BBIO(64,1)	LOGNORMAL-N	3.2	1.1						
36	DCACTC(2)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999				
37	DCACTU1(2)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999				
38	DCACTS(2)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999				
39	DCACTC(3)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999				
40	DCACTU1(3)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999				
41	DCACTS(3)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999				

Probabilistic Total Dose Summary

0Nuclide	Peak Time	Peak Dose	t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
Eu-152	Min	0.00E+00	8.12E-01	8.12E-01	4.63E-02	1.50E-04	2.92E-13	1.90E-25	0.00E+00	0.00E+00	0.00E+00
	Max	0.00E+00	2.49E+00	2.49E+00	2.36E+00	2.13E+00	1.48E+00	5.22E-01	1.37E-02	4.16E-07	3.76E-14
	Avg	0.00E+00	2.43E+00	2.43E+00	2.29E+00	2.04E+00	1.38E+00	4.65E-01	1.13E-02	2.98E-07	1.48E-15
	Std	0.00E+00	8.05E-02	8.05E-02	1.53E-01	2.11E-01	2.29E-01	1.12E-01	3.90E-03	1.50E-07	2.54E-15
äALL	Min	0.00E+00	8.12E-01	8.12E-01	4.63E-02	1.50E-04	2.92E-13	1.90E-25	0.00E+00	0.00E+00	0.00E+00
	Max	0.00E+00	2.49E+00	2.49E+00	2.36E+00	2.13E+00	1.48E+00	5.22E-01	1.37E-02	4.16E-07	3.76E-14
	Avg	0.00E+00	2.43E+00	2.43E+00	2.29E+00	2.04E+00	1.38E+00	4.65E-01	1.13E-02	2.98E-07	1.48E-15
	Std	0.00E+00	8.05E-02	8.05E-02	1.53E-01	2.11E-01	2.29E-01	1.12E-01	3.90E-03	1.50E-07	2.54E-15

äALL is total dose summed for all nuclides.

Probabilistic results summary : Yankee Rowe Sensitivity Analysis=soil

File : Eu-152_DCGL.RAD

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	2.430E+00

1 RESRAD Regression and Correlation output 11/28/03 07:29 Page: Coef 1

Title : Yankee Rowe Sensitivity Analysis=soil

Input File : Eu-152_DCGL.RAD

Coefficients for peak of mean dose time Dose		PCC	SRC	PRCC	SRRC	
Coefficient =	Repetition =	1	1	1	1	
<hr/>						
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	41	0.00	41	0.00	25	-0.01
Well pump intake depth	25	0.01	30	0.01	15	0.03
Depth of soil mixing layer	21	0.01	26	0.01	38	0.00
Depth of roots	29	0.01	34	0.01	4	-0.11
Wet weight crop yield of fruit, grain and non-leafy vegetables	3	0.04	12	0.04	37	0.00
Wet foliar interception fraction of leafy vegetables	31	0.01	35	0.01	33	0.00
Weathering removal constant of all vegetation	11	-0.03	19	-0.03	39	0.00
Mass loading for inhalation	6	-0.03	15	-0.03	32	-0.01
Thickness of contaminated zone	34	0.01	11	0.04	6	0.05
Thickness of Unsaturated zone 1	18	-0.02	8	-0.11	29	-0.01
Density of contaminated zone	15	-0.02	6	-0.14	18	0.02
Contaminated zone total porosity	8	-0.03	4	-0.21	31	0.01
Contaminated zone hydraulic conductivity	27	0.01	32	0.01	21	-0.01
Density of saturated zone	14	0.02	1	0.67	12	0.03
Saturated zone total porosity	19	0.02	3	0.28	10	0.03
Saturated zone effective porosity	12	0.02	2	0.39	16	0.03
Saturated zone hydraulic conductivity	13	0.02	20	0.02	23	0.01
Density of Unsaturated zone 1	35	0.00	5	-0.15	30	-0.01
Total Porosity of Unsaturated zone 1	39	0.00	22	-0.02	22	-0.01
Effective Porosity of Unsaturated zone 1	30	-0.01	7	-0.12	41	0.00
Hydraulic Conductivity of Unsaturated zone 1	9	0.03	17	0.03	40	0.00
Contaminated zone b parameter	26	-0.01	31	-0.01	20	-0.02
Saturated zone b parameter	22	0.01	27	0.01	24	0.01
Well pumping rate	36	0.00	24	0.02	34	0.00
b Parameter of Unsaturated zone 1	2	0.05	10	0.04	13	0.03
Irrigation	40	0.00	40	0.00	27	-0.01
Evapotranspiration coefficient	4	0.04	13	0.03	5	0.10
Plant transfer factor for Eu	1	0.05	9	0.05	2	0.56
Plant transfer factor for Gd	28	-0.01	33	-0.01	9	0.03
Meat transfer factor for Gd	23	-0.01	28	-0.01	26	-0.01
Meat transfer factor for Eu	20	-0.01	25	-0.01	3	0.21
Milk transfer factor for Eu	16	-0.02	21	-0.02	17	0.03
Milk transfer factor for Gd	32	0.01	36	0.01	19	0.02
Fish transfer factor for Eu	38	0.00	39	0.00	11	-0.03
Fish transfer factor for Gd	10	0.03	18	0.03	8	0.04
Kd of Eu-152 in Contaminated Zone	5	0.03	14	0.03	1	0.59
Kd of Eu-152 in Unsaturated Zone 1	37	0.00	38	0.00	28	-0.01
Kd of Eu-152 in Saturated Zone	7	-0.03	16	-0.03	36	0.00
Kd of Gd-152 in Contaminated Zone	17	-0.02	23	-0.02	14	-0.03
Kd of Gd-152 in Unsaturated Zone 1	24	0.01	29	0.01	7	-0.05
Kd of Gd-152 in Saturated Zone	33	-0.01	37	-0.01	35	0.00
<hr/>		<hr/>				
R-SQUARE		0.04	0.04	0.55	0.55	

--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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters												
1	SHF3	UNIFORM	.15	.95											
2	DWIBWT	TRIANGULAR	6	10	30										
3	DM	TRIANGULAR	0	.15	.6										
4	DROOT	UNIFORM	.3	3.8											
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999									
6	RWET(2)	TRIANGULAR	.06	.67	.95										
7	WLAM	TRIANGULAR	5.1	18	84										
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119				
.00004	.9495	.00006	.9937	.000076	.9983	.0001	1								
9	THICK0	UNIFORM	.15	3.8											
10	H(1)	UNIFORM	.01	3.65											
11	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002									
12	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154									
13	HCCZ	BETA	110	5870	1.398	1.842									
14	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002									
15	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154									
16	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572									
17	HCSZ	BETA	110	5870	1.398	1.842									
18	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002									
19	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154									
20	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572									
21	HCUZ(1)	BETA	110	5870	1.398	1.842									
22	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9									
23	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9									
24	UW	UNIFORM	957	1689											
25	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9									
26	RI	UNIFORM	.252	.618											
27	EVAPTR	UNIFORM	.5	.75											
28	BRTF(63,1)	TRUNCATED LOGNORMAL-N	-6.21	1.1	.001	.999									
29	BRTF(63,2)	TRUNCATED LOGNORMAL-N	-6.21	1	.001	.999									
30	BRTF(63,3)	TRUNCATED LOGNORMAL-N	-9.72	.9	.001	.999									
31	BBIO(63,1)	LOGNORMAL-N	3.9	1.1											
32	DCACTC(1)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999									
33	DCACTU1(1)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999									
34	DCACTS(1)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999									

Probabilistic Total Dose Summary

0Nuclide	Peak (j)	Peak Time	Peak Dose	DOSE(j,t), mrem/yr											
Eu-154	Min	0.00E+00	6.48E-01	6.48E-01	9.94E-03	2.33E-06	4.62E-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Max	0.00E+00	2.72E+00	2.72E+00	2.52E+00	2.15E+00	1.24E+00	2.55E-01	1.02E-03	1.47E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Avg	0.00E+00	2.63E+00	2.63E+00	2.41E+00	2.04E+00	1.14E+00	2.26E-01	8.41E-04	1.05E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Std	0.00E+00	9.72E-02	9.72E-02	1.76E-01	2.18E-01	1.88E-01	5.44E-02	2.90E-04	5.26E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
äALL	Min	0.00E+00	6.48E-01	6.48E-01	9.94E-03	2.33E-06	4.62E-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Max	0.00E+00	2.72E+00	2.72E+00	2.52E+00	2.15E+00	1.24E+00	2.55E-01	1.02E-03	1.47E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Avg	0.00E+00	2.63E+00	2.63E+00	2.41E+00	2.04E+00	1.14E+00	2.26E-01	8.41E-04	1.05E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Std	0.00E+00	9.72E-02	9.72E-02	1.76E-01	2.18E-01	1.88E-01	5.44E-02	2.90E-04	5.26E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

äALL is total dose summed for all nuclides.

Probabilistic results summary : Yankee Rowe Sensitivity Analysis=soil

File : Eu-154_DCGL.RAD

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	2.632E+00

1 RESRAD Regression and Correlation output 11/28/03 07:39 Page: Coef 1

Title : Yankee Rowe Sensitivity Analysis=soil

Input File : Eu-154_DCGL.RAD

Coefficients for peak of mean dose time Dose Coefficient = Repetition =	PCC		SRC		PRCC		SRRC	
	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	33	0.00	33	0.00	10	-0.03	15	-0.02
Well pump intake depth	30	0.01	31	0.01	19	-0.01	28	-0.01
Depth of soil mixing layer	34	0.00	34	0.00	16	-0.02	26	-0.01
Depth of roots	15	-0.02	21	-0.02	4	-0.11	8	-0.07
Wet weight crop yield of fruit, grain and non-leafy vegetables	28	0.01	28	0.01	13	-0.03	20	-0.02
Wet foliar interception fraction of leafy vegetables	24	0.01	27	0.01	14	-0.02	22	-0.01
Weathering removal constant of all vegetation	2	-0.06	11	-0.06	34	0.00	34	0.00
Mass loading for inhalation	22	0.02	26	0.02	29	0.00	33	0.00
Thickness of contaminated zone	17	0.02	7	0.14	5	0.06	3	0.26
Thickness of Unsaturated zone 1	31	0.00	16	-0.03	26	-0.01	13	-0.03
Density of contaminated zone	25	-0.01	9	-0.07	9	0.04	5	0.16
Contaminated zone total porosity	18	-0.02	8	-0.14	18	0.01	9	0.06
Contaminated zone hydraulic conductivity	21	-0.02	25	-0.02	28	0.00	32	0.00
Density of saturated zone	7	-0.04	1	-1.33	33	0.00	19	-0.02
Saturated zone total porosity	8	-0.04	4	-0.65	22	0.01	7	0.10
Saturated zone effective porosity	6	-0.04	3	-0.69	20	-0.01	6	-0.13
Saturated zone hydraulic conductivity	13	0.03	20	0.03	15	0.02	25	0.01
Density of Unsaturated zone 1	11	0.03	2	0.84	30	0.00	14	0.03
Total Porosity of Unsaturated zone 1	14	0.02	6	0.37	31	0.00	23	0.01
Effective Porosity of Unsaturated zone 1	10	0.03	5	0.49	32	0.00	24	0.01
Hydraulic Conductivity of Unsaturated zone 1	19	-0.02	23	-0.02	6	-0.06	10	-0.04
Contaminated zone b parameter	12	0.03	19	0.03	11	0.03	16	0.02
Saturated zone b parameter	3	-0.06	12	-0.06	27	0.00	31	0.00
Well pumping rate	23	0.02	14	0.05	25	-0.01	21	-0.01
b Parameter of Unsaturated zone 1	9	0.03	18	0.03	17	0.02	27	0.01
Irrigation	26	-0.01	17	-0.03	23	0.01	18	0.02
Evapotranspiration coefficient	4	0.06	13	0.06	8	0.04	12	0.03
Plant transfer factor for Eu	1	0.06	10	0.06	1	0.62	1	0.50
Meat transfer factor for Eu	32	0.00	32	0.00	3	0.25	4	0.17
Milk transfer factor for Eu	27	-0.01	29	-0.01	21	0.01	29	0.01
Fish transfer factor for Eu	20	0.02	24	0.02	7	0.05	11	0.03
Kd of Eu-154 in Contaminated Zone	16	0.02	22	0.02	2	0.59	2	0.47
Kd of Eu-154 in Unsaturated Zone 1	5	-0.04	15	-0.04	24	0.01	30	0.01
Kd of Eu-154 in Saturated Zone	29	-0.01	30	-0.01	12	-0.03	17	-0.02
R-SQUARE		0.06		0.06		0.60		0.60

-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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters																	
1	SHF3	UNIFORM	.15	.95																
2	DWIBWT	TRIANGULAR	6	10	30															
3	DM	TRIANGULAR	0	.15	.6															
4	DROOT	UNIFORM	.3	3.8																
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999														
6	RWET(2)	TRIANGULAR	.06	.67	.95															
7	WLAM	TRIANGULAR	5.1	18	84															
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119									
.00004	.9495	.00006	.9937	.000076	.9983	.0001	1													
9	THICK0	UNIFORM	.15	3.8																
10	H(1)	UNIFORM	.01	3.65																
11	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
12	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154														
13	HCCZ	BETA	110	5870	1.398	1.842														
14	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
15	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154														
16	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572														
17	HCSZ	BETA	110	5870	1.398	1.842														
18	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
19	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154														
20	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572														
21	HCUZ(1)	BETA	110	5870	1.398	1.842														
22	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
23	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
24	UW	UNIFORM	957	1689																
25	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
26	RI	UNIFORM	.252	.618																
27	EVAPTR	UNIFORM	.5	.75																
28	BRTF(63,1)	TRUNCATED LOGNORMAL-N	-6.21	1.1	.001	.999														
29	BRTF(63,2)	TRUNCATED LOGNORMAL-N	-6.21	1	.001	.999														
30	BRTF(63,3)	TRUNCATED LOGNORMAL-N	-9.72	.9	.001	.999														
31	BBIO(63,1)	LOGNORMAL-N	3.9	1.1																
32	DCACTC(1)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999														
33	DCACTU1(1)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999														
34	DCACTS(1)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999														

Probabilistic Total Dose Summary

0Nuclide	Peak (j)	Peak Time	Peak Dose	DOSE(j,t), mrem/yr																
			t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03									
Eu-154	Min	0.00E+00	6.48E-01	6.48E-01	9.94E-03	2.33E-06	4.62E-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00									
	Max	0.00E+00	2.72E+00	2.72E+00	2.52E+00	2.15E+00	1.24E+00	2.55E-01	1.02E-03	1.47E-10	0.00E+00									
	Avg	0.00E+00	2.63E+00	2.63E+00	2.41E+00	2.04E+00	1.14E+00	2.26E-01	8.41E-04	1.05E-10	0.00E+00									
	Std	0.00E+00	9.72E-02	9.72E-02	1.76E-01	2.18E-01	1.88E-01	5.44E-02	2.90E-04	5.26E-11	0.00E+00									
äALL	Min	0.00E+00	6.48E-01	6.48E-01	9.94E-03	2.33E-06	4.62E-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00									
	Max	0.00E+00	2.72E+00	2.72E+00	2.52E+00	2.15E+00	1.24E+00	2.55E-01	1.02E-03	1.47E-10	0.00E+00									
	Avg	0.00E+00	2.63E+00	2.63E+00	2.41E+00	2.04E+00	1.14E+00	2.26E-01	8.41E-04	1.05E-10	0.00E+00									
	Std	0.00E+00	9.72E-02	9.72E-02	1.76E-01	2.18E-01	1.88E-01	5.44E-02	2.90E-04	5.26E-11	0.00E+00									

äALL is total dose summed for all nuclides.

Probabilistic results summary : Yankee Rowe Sensitivity Analysis=soil

File : Eu-154_DCGL.RAD

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	2.632E+00

1 RESRAD Regression and Correlation output 11/28/03 07:39 Page: Coef 1

Title : Yankee Rowe Sensitivity Analysis=soil

Input File : Eu-154_DCGL.RAD

Coefficients for peak of mean dose time Dose	PCC		SRC		PRCC		SRRC	
	Coefficient =	Repetition =	1	1	1	1	1	1
<hr/>								
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	33	0.00	33	0.00	10	-0.03	15	-0.02
Well pump intake depth	30	0.01	31	0.01	19	-0.01	28	-0.01
Depth of soil mixing layer	34	0.00	34	0.00	16	-0.02	26	-0.01
Depth of roots	15	-0.02	21	-0.02	4	-0.11	8	-0.07
Wet weight crop yield of fruit, grain and non-leafy vegetables	28	0.01	28	0.01	13	-0.03	20	-0.02
Wet foliar interception fraction of leafy vegetables	24	0.01	27	0.01	14	-0.02	22	-0.01
Weathering removal constant of all vegetation	2	-0.06	11	-0.06	34	0.00	34	0.00
Mass loading for inhalation	22	0.02	26	0.02	29	0.00	33	0.00
Thickness of contaminated zone	17	0.02	7	0.14	5	0.06	3	0.26
Thickness of Unsaturated zone 1	31	0.00	16	-0.03	26	-0.01	13	-0.03
Density of contaminated zone	25	-0.01	9	-0.07	9	0.04	5	0.16
Contaminated zone total porosity	18	-0.02	8	-0.14	18	0.01	9	0.06
Contaminated zone hydraulic conductivity	21	-0.02	25	-0.02	28	0.00	32	0.00
Density of saturated zone	7	-0.04	1	-1.33	33	0.00	19	-0.02
Saturated zone total porosity	8	-0.04	4	-0.65	22	0.01	7	0.10
Saturated zone effective porosity	6	-0.04	3	-0.69	20	-0.01	6	-0.13
Saturated zone hydraulic conductivity	13	0.03	20	0.03	15	0.02	25	0.01
Density of Unsaturated zone 1	11	0.03	2	0.84	30	0.00	14	0.03
Total Porosity of Unsaturated zone 1	14	0.02	6	0.37	31	0.00	23	0.01
Effective Porosity of Unsaturated zone 1	10	0.03	5	0.49	32	0.00	24	0.01
Hydraulic Conductivity of Unsaturated zone 1	19	-0.02	23	-0.02	6	-0.06	10	-0.04
Contaminated zone b parameter	12	0.03	19	0.03	11	0.03	16	0.02
Saturated zone b parameter	3	-0.06	12	-0.06	27	0.00	31	0.00
Well pumping rate	23	0.02	14	0.05	25	-0.01	21	-0.01
b Parameter of Unsaturated zone 1	9	0.03	18	0.03	17	0.02	27	0.01
Irrigation	26	-0.01	17	-0.03	23	0.01	18	0.02
Evapotranspiration coefficient	4	0.06	13	0.06	8	0.04	12	0.03
Plant transfer factor for Eu	1	0.06	10	0.06	1	0.62	1	0.50
Meat transfer factor for Eu	32	0.00	32	0.00	3	0.25	4	0.17
Milk transfer factor for Eu	27	-0.01	29	-0.01	21	0.01	29	0.01
Fish transfer factor for Eu	20	0.02	24	0.02	7	0.05	11	0.03
Kd of Eu-154 in Contaminated Zone	16	0.02	22	0.02	2	0.59	2	0.47
Kd of Eu-154 in Unsaturated Zone 1	5	-0.04	15	-0.04	24	0.01	30	0.01
Kd of Eu-154 in Saturated Zone	29	-0.01	30	-0.01	12	-0.03	17	-0.02
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R-SQUARE		0.06		0.06		0.60		0.60

-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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters																	
1	SHF3	UNIFORM	.15	.95																
2	DWIBWT	TRIANGULAR	6	10	30															
3	DM	TRIANGULAR	0	.15	.6															
4	DROOT	UNIFORM	.3	3.8																
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999														
6	RWET(2)	TRIANGULAR	.06	.67	.95															
7	WLAM	TRIANGULAR	5.1	18	84															
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119									
.00004	.9495	.00006	.9937	.000076	.9983	.0001	1													
9	THICK0	UNIFORM	.15	3.8																
10	H(1)	UNIFORM	.01	3.65																
11	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
12	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154														
13	HCCZ	BETA	110	5870	1.398	1.842														
14	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
15	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154														
16	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572														
17	HCSZ	BETA	110	5870	1.398	1.842														
18	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
19	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154														
20	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572														
21	HCUZ(1)	BETA	110	5870	1.398	1.842														
22	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
23	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
24	UW	UNIFORM	957	1689																
25	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
26	RI	UNIFORM	.252	.618																
27	EVAPTR	UNIFORM	.5	.75																
28	BRTF(63,2)	TRUNCATED LOGNORMAL-N	-6.21	1	.001	.999														
29	BRTF(63,3)	TRUNCATED LOGNORMAL-N	-9.72	.9	.001	.999														
30	BBIO(63,1)	LOGNORMAL-N	3.9	1.1																
31	DCACTC(1)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999														
32	DCACTU1(1)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999														
33	DCACTS(1)	TRUNCATED LOGNORMAL-N	6.72	3.22	.001	.999														

Probabilistic Total Dose Summary

ONuclide	Peak (j)	Peak Time	Peak Dose	t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
Eu-155	Min	0.00E+00	2.33E-02	2.33E-02	1.57E-03	7.17E-06	4.58E-14	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Max	0.00E+00	6.56E-02	6.56E-02	5.70E-02	4.30E-02	1.62E-02	9.88E-04	5.57E-08	4.05E-20	0.00E+00	0.00E+00
	Avg	0.00E+00	6.29E-02	6.29E-02	5.42E-02	4.05E-02	1.48E-02	8.66E-04	4.52E-08	2.87E-20	0.00E+00	0.00E+00
	Std	0.00E+00	1.87E-03	1.87E-03	3.55E-03	4.19E-03	2.44E-03	2.08E-04	1.56E-08	1.42E-20	0.00E+00	0.00E+00
äALL	Min	0.00E+00	2.33E-02	2.33E-02	1.57E-03	7.17E-06	4.58E-14	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Max	0.00E+00	6.56E-02	6.56E-02	5.70E-02	4.30E-02	1.62E-02	9.88E-04	5.57E-08	4.05E-20	0.00E+00	0.00E+00
	Avg	0.00E+00	6.29E-02	6.29E-02	5.42E-02	4.05E-02	1.48E-02	8.66E-04	4.52E-08	2.87E-20	0.00E+00	0.00E+00
	Std	0.00E+00	1.87E-03	1.87E-03	3.55E-03	4.19E-03	2.44E-03	2.08E-04	1.56E-08	1.42E-20	0.00E+00	0.00E+00

äALL is total dose summed for all nuclides.

Peak of the mean dose (averaged over observations) at graphical times
 Repetition Time of peak mean dose Peak mean dose
 Years mrem/yr
 1 0.000E+00 6.286E-02

1 RESRAD Regression and Correlation output 11/28/03 07:47 Page: Coef 1
 Title : Yankee Rowe Sensitivity Analysis=soil
 Input File : Eu-155_DCGL.RAD

Coefficients for peak of mean dose time Dose		PCC	SRC	PRCC	SRRC	
Coefficient =		1	1	1	1	
Repetition =						
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	11	0.03	16	0.03	19	-0.02
Well pump intake depth	9	0.03	15	0.03	33	0.00
Depth of soil mixing layer	30	0.00	32	0.00	7	-0.04
Depth of roots	4	-0.04	12	-0.04	3	-0.46
Wet weight crop yield of fruit, grain and non-leafy vegetables	24	0.01	29	0.01	13	-0.02
Wet foliar interception fraction of leafy vegetables	8	-0.03	14	-0.03	14	-0.02
Weathering removal constant of all vegetation	2	-0.05	10	-0.05	12	0.02
Mass loading for inhalation	23	-0.01	28	-0.01	20	-0.02
Thickness of contaminated zone	10	0.03	6	0.18	4	0.15
Thickness of Unsaturated zone 1	33	0.00	23	-0.01	32	0.00
Density of contaminated zone	32	0.00	19	-0.02	11	0.02
Contaminated zone total porosity	25	-0.01	9	-0.05	17	0.02
Contaminated zone hydraulic conductivity	3	-0.05	11	-0.05	28	0.01
Density of saturated zone	6	0.03	1	1.05	10	-0.02
Saturated zone total porosity	7	0.03	3	0.48	15	-0.02
Saturated zone effective porosity	5	0.03	2	0.59	9	-0.03
Saturated zone hydraulic conductivity	16	0.01	22	0.01	23	0.01
Density of Unsaturated zone 1	17	-0.01	4	-0.44	27	0.01
Total Porosity of Unsaturated zone 1	15	-0.02	5	-0.35	25	0.01
Effective Porosity of Unsaturated zone 1	28	0.00	8	-0.08	31	0.00
Hydraulic Conductivity of Unsaturated zone 1	18	0.01	24	0.01	30	0.00
Contaminated zone b parameter	31	0.00	33	0.00	8	0.03
Saturated zone b parameter	14	-0.02	20	-0.02	18	0.02
Well pumping rate	29	0.00	21	0.02	21	0.02
b Parameter of Unsaturated zone 1	22	-0.01	27	-0.01	24	0.01
Irrigation	21	-0.01	13	-0.03	16	-0.02
Evapotranspiration coefficient	26	0.01	30	0.01	6	0.07
Meat transfer factor for Eu	1	0.10	7	0.10	1	0.59
Milk transfer factor for Eu	13	-0.03	18	-0.02	5	0.12
Fish transfer factor for Eu	27	-0.01	31	-0.01	22	-0.01
Kd of Eu-155 in Contaminated Zone	12	0.03	17	0.03	2	0.48
Kd of Eu-155 in Unsaturated Zone 1	20	0.01	26	0.01	29	-0.01
Kd of Eu-155 in Saturated Zone	19	0.01	25	0.01	26	0.01
R-SQUARE		0.06		0.06		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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters							
1	SHF3	UNIFORM	.15	.95						
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1				
3	DWIBWT	TRIANGULAR	6	10	30					
4	DM	TRIANGULAR	0	.15	.6					
5	DROOT	UNIFORM	.3	3.8						
6	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999				
7	RWET(2)	TRIANGULAR	.06	.67	.95					
8	WLAM	TRIANGULAR	5.1	18	84					
9	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003 .8119
.00004	.9495	.00006 .9937	.000076	.9983	.0001	1				
10	THICK0	UNIFORM	.15	3.8						
11	H(1)	UNIFORM	.01	3.65						
12	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
13	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
14	HCCZ	BETA	110	5870	1.398	1.842				
15	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
16	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
17	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572				
18	HCSZ	BETA	110	5870	1.398	1.842				
19	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
20	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154				
21	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572				
22	HCUZ(1)	BETA	110	5870	1.398	1.842				
23	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
24	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
25	UW	UNIFORM	957	1689						
26	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
27	RI	UNIFORM	.252	.618						
28	EVAPTR	UNIFORM	.5	.75						
29	DCACTC(1)	TRUNCATED LOGNORMAL-N	5.34	2.67	.001	.999				
30	DCACTU1(1)	TRUNCATED LOGNORMAL-N	5.34	2.67	.001	.999				
31	DCACTS(1)	TRUNCATED LOGNORMAL-N	5.34	2.67	.001	.999				
32	BRTF(26,3)	TRUNCATED LOGNORMAL-N	-8.11	.7	.001	.999				
33	BBIO(26,1)	LOGNORMAL-N	5.3	1.1						

Probabilistic Total Dose Summary

ONuclide	Peak (j)	Peak Time	Peak Dose	t= 0.00E+00	1.00E+00	3.00E+00	DOSE(j,t), mrem/yr	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
Fe-55	Min	0.00E+00	1.43E-04	1.43E-04	2.00E-07	2.57E-13	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Max	1.39E+01	1.50E-03	1.07E-03	9.35E-04	1.23E-03	5.47E-04	2.07E-05	1.19E-13	0.00E+00	0.00E+00	0.00E+00
	Avg	9.51E-03	8.58E-04	8.57E-04	6.56E-04	3.87E-04	6.26E-05	3.84E-07	5.56E-15	0.00E+00	0.00E+00	0.00E+00
	Std	3.21E-01	9.22E-05	9.07E-05	8.41E-05	6.85E-05	2.29E-05	6.39E-07	6.86E-15	0.00E+00	0.00E+00	0.00E+00
äALL	Min	0.00E+00	1.43E-04	1.43E-04	2.00E-07	2.57E-13	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Max	1.39E+01	1.50E-03	1.07E-03	9.35E-04	1.23E-03	5.47E-04	2.07E-05	1.19E-13	0.00E+00	0.00E+00	0.00E+00
	Avg	9.51E-03	8.58E-04	8.57E-04	6.56E-04	3.87E-04	6.26E-05	3.84E-07	5.56E-15	0.00E+00	0.00E+00	0.00E+00
	Std	3.21E-01	9.22E-05	9.07E-05	8.41E-05	6.85E-05	2.29E-05	6.39E-07	6.86E-15	0.00E+00	0.00E+00	0.00E+00

äALL is total dose summed for all nuclides.

Peak of the mean dose (averaged over observations) at graphical times
 Repetition Time of peak mean dose Peak mean dose
 Years mrem/yr
 1 0.000E+00 8.571E-04

1 RESRAD Regression and Correlation output 11/28/03 13:21 Page: Coef 1
 Title : Yankee Rowe Sensitivity Analysis=soil
 Input File : Fe55_DCGL.RAD

Coefficients for peak of mean dose time Dose
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	24	-0.01	25	-0.01	9	-0.03	19	-0.01
External gamma shielding factor	33	0.00	33	0.00	8	0.03	18	0.01
Well pump intake depth	14	0.03	22	0.02	30	0.00	31	0.00
Depth of soil mixing layer	4	-0.10	13	-0.07	32	0.00	33	0.00
Depth of roots	1	-0.45	4	-0.32	1	-0.66	2	-0.41
Wet weight crop yield of fruit, grain and non-leafy vegetables	29	0.01	29	0.00	10	0.02	20	0.01
Wet foliar interception fraction of leafy vegetables	6	0.04	17	0.03	7	0.03	17	0.01
Weathering removal constant of all vegetation	30	0.00	30	0.00	27	0.00	27	0.00
Mass loading for inhalation	26	0.01	26	0.01	31	0.00	32	0.00
Thickness of contaminated zone	3	0.13	1	0.58	3	0.21	1	0.67
Thickness of Unsaturated zone 1	21	-0.02	12	-0.07	26	-0.01	14	-0.02
Density of contaminated zone	19	-0.02	11	-0.09	21	0.01	11	0.03
Contaminated zone total porosity	15	-0.03	10	-0.12	33	0.00	28	0.00
Contaminated zone hydraulic conductivity	22	0.02	24	0.01	24	0.01	25	0.00
Density of saturated zone	13	-0.03	2	-0.56	23	-0.01	5	-0.12
Saturated zone total porosity	9	-0.03	3	-0.34	20	-0.01	9	-0.08
Saturated zone effective porosity	17	-0.02	7	-0.23	22	-0.01	10	-0.06
Saturated zone hydraulic conductivity	12	0.03	21	0.02	28	0.00	29	0.00
Density of Unsaturated zone 1	23	-0.01	5	-0.29	13	0.02	4	0.24
Total Porosity of Unsaturated zone 1	20	-0.02	8	-0.19	16	0.02	6	0.12
Effective Porosity of Unsaturated zone 1	25	-0.01	9	-0.12	17	0.01	7	0.12
Hydraulic Conductivity of Unsaturated zone 1	32	0.00	32	0.00	6	0.04	16	0.02
Contaminated zone b parameter	31	0.00	31	0.00	25	0.01	26	0.00
Saturated zone b parameter	27	-0.01	27	-0.01	12	-0.02	22	-0.01
Well pumping rate	11	-0.03	14	-0.06	14	-0.02	12	-0.03
b Parameter of Unsaturated zone 1	8	0.03	19	0.02	19	0.01	24	0.01
Irrigation	16	0.02	15	0.05	18	0.01	15	0.02
Evapotranspiration coefficient	28	-0.01	28	-0.01	15	0.02	23	0.01
Kd of Fe-55 in Contaminated Zone	10	0.03	20	0.02	4	0.20	8	0.09
Kd of Fe-55 in Unsaturated Zone 1	18	-0.02	23	-0.01	29	0.00	30	0.00
Kd of Fe-55 in Saturated Zone	5	-0.05	16	-0.03	11	-0.02	21	-0.01
Milk transfer factor for Fe	2	0.36	6	0.24	2	0.62	3	0.36
Fish transfer factor for Fe	7	0.04	18	0.02	5	0.04	13	0.02
R-SQUARE		0.60		0.60		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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters							
1	SHF3	UNIFORM	.15	.95						
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1				
3	DWIBWT	TRIANGULAR	6	10	30					
4	DM	TRIANGULAR	0	.15	.6					
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999				
6	RWET(2)	TRIANGULAR	.06	.67	.95					
7	WLAM	TRIANGULAR	5.1	18	84					
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003 .8119
.00004	.9495	.00006 .9937	.000076	.9983	.0001	1				
9	H(1)	UNIFORM	.01	3.65						
10	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
11	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
12	HCCZ	BETA	110	5870	1.398	1.842				
13	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
14	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
15	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572				
16	HCSZ	BETA	110	5870	1.398	1.842				
17	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
18	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154				
19	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572				
20	HCUZ(1)	BETA	110	5870	1.398	1.842				
21	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
22	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
23	UW	UNIFORM	957	1689						
24	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
25	RI	UNIFORM	.252	.618						
26	EVAPTR	UNIFORM	.5	.75						
27	DCACTU1(1)	TRUNCATED LOGNORMAL-N	-2.81	.5	.001	.999				
28	DCACTS(1)	TRUNCATED LOGNORMAL-N	-2.81	.5	.001	.999				
29	BRTF(1,1)	TRUNCATED LOGNORMAL-N	1.57	1.1	.001	.999				
30	BRTF(1,2)	TRUNCATED LOGNORMAL-N	-4.42	1	.001	.999				
31	BRTF(1,3)	TRUNCATED LOGNORMAL-N	-4.6	.9	.001	.999				
32	BBIO(1,1)	LOGNORMAL-N	0	.1						

0 Probabilistic Total Dose Summary

ONuclide	Peak (j)	Peak Time	Peak Dose	DOSE(j,t), mrem/yr							
H-3	Min	0.00E+00	3.84E-02	3.84E-02	2.49E-03	4.33E-06	3.52E-16	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Max	0.00E+00	1.11E-01	1.11E-01	4.60E-02	3.80E-02	7.62E-06	7.56E-21	0.00E+00	0.00E+00	0.00E+00
	Avg	0.00E+00	6.79E-02	6.79E-02	1.04E-02	6.37E-04	5.91E-09	1.21E-23	0.00E+00	0.00E+00	0.00E+00
	Std	0.00E+00	9.72E-03	9.72E-03	4.54E-03	2.20E-03	1.73E-07	2.07E-22	0.00E+00	0.00E+00	0.00E+00
äALL	Min	0.00E+00	3.84E-02	3.84E-02	2.49E-03	4.33E-06	3.52E-16	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Max	0.00E+00	1.11E-01	1.11E-01	4.60E-02	3.80E-02	7.62E-06	7.56E-21	0.00E+00	0.00E+00	0.00E+00
	Avg	0.00E+00	6.79E-02	6.79E-02	1.04E-02	6.37E-04	5.91E-09	1.21E-23	0.00E+00	0.00E+00	0.00E+00
	Std	0.00E+00	9.72E-03	9.72E-03	4.54E-03	2.20E-03	1.73E-07	2.07E-22	0.00E+00	0.00E+00	0.00E+00

äALL is total dose summed for all nuclides.

Peak of the mean dose (averaged over observations) at graphical times
 Repetition Time of peak mean dose Peak mean dose
 Years mrem/yr
 1 0.000E+00 6.788E-02

1 RESRAD Regression and Correlation output 11/26/03 15:24 Page: Coef 1
 Title : Yankee Rowe Sensitivity Analysis=soil
 Input File : H-3_DCGL.RAD

Coefficients for peak of mean dose time Dose		PCC	SRC	PRCC	SRRC
Coefficient =	Repetition =	1	1	1	1
<hr/>					
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff
Indoor dust filtration factor		20	0.02	21	0.00
External gamma shielding factor		27	-0.01	27	0.00
Well pump intake depth		7	-0.23	14	-0.05
Depth of soil mixing layer		30	0.00	31	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables		22	0.02	22	0.00
Wet foliar interception fraction of leafy vegetables		19	-0.02	20	0.00
Weathering removal constant of all vegetation		26	0.01	26	0.00
Mass loading for inhalation		29	-0.01	29	0.00
Thickness of Unsaturated zone 1		3	-0.61	8	-0.16
Density of contaminated zone		5	0.38	1	0.62
Contaminated zone total porosity		9	-0.12	5	-0.18
Contaminated zone hydraulic conductivity		2	0.65	4	0.18
Density of saturated zone		15	0.02	6	0.18
Saturated zone total porosity		14	0.03	10	0.10
Saturated zone effective porosity		18	0.02	11	0.08
Saturated zone hydraulic conductivity		6	-0.26	13	-0.06
Density of Unsaturated zone 1		16	-0.02	7	-0.17
Total Porosity of Unsaturated zone 1		21	-0.02	12	-0.07
Effective Porosity of Unsaturated zone 1		13	-0.03	9	-0.11
Hydraulic Conductivity of Unsaturated zone 1		12	0.04	18	0.01
Contaminated zone b parameter		1	-0.67	3	-0.19
Saturated zone b parameter		31	0.00	32	0.00
Well pumping rate		32	0.00	30	0.00
b Parameter of Unsaturated zone 1		10	-0.06	16	-0.01
Irrigation		4	-0.54	2	-0.47
Evapotranspiration coefficient		24	0.01	24	0.00
Kd of H-3 in Unsaturated Zone 1		8	-0.18	15	-0.04
Kd of H-3 in Saturated Zone		11	-0.06	17	-0.01
Plant transfer factor for H		17	0.02	19	0.01
Meat transfer factor for H		23	0.02	23	0.00
Milk transfer factor for H		28	0.01	28	0.00
Fish transfer factor for H		25	0.01	25	0.00
<hr/>					
R-SQUARE			0.95		0.95
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-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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters																	
1	SHF3	UNIFORM	.15	.95																
2	DWIBWT	TRIANGULAR	6	10	30															
3	DM	TRIANGULAR	0	.15	.6															
4	DROOT	UNIFORM	.3	3.8																
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999														
6	RWET(2)	TRIANGULAR	.06	.67	.95															
7	WLAM	TRIANGULAR	5.1	18	84															
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119									
.00004	.9495	.00006	.9937	.000076	.9983	.0001	1													
9	THICK0	UNIFORM	.15	3.8																
10	H(1)	UNIFORM	.01	3.65																
11	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
12	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154														
13	HCCZ	BETA	110	5870	1.398	1.842														
14	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
15	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154														
16	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572														
17	HCSZ	BETA	110	5870	1.398	1.842														
18	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
19	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154														
20	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572														
21	HCUZ(1)	BETA	110	5870	1.398	1.842														
22	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
23	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
24	UW	UNIFORM	957	1689																
25	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
26	RI	UNIFORM	.252	.618																
27	EVAPTR	UNIFORM	.5	.75																
28	DCACTU1(1)	TRUNCATED LOGNORMAL-N	5.94	3.22	.001	.999														
29	DCACT5(1)	TRUNCATED LOGNORMAL-N	5.94	3.22	.001	.999														
30	BRTF(41,1)	TRUNCATED LOGNORMAL-N	-4.61	1.1	.001	.999														
31	BRTF(41,2)	TRUNCATED LOGNORMAL-N	-13.82	.9	.001	.999														
32	BRTF(41,3)	TRUNCATED LOGNORMAL-N	-13.12	.7	.001	.999														
33	BBIO(41,1)	LOGNORMAL-N	5.7	1.1																

Probabilistic Total Dose Summary

ONuclide	Peak (j)	Peak Time	Peak Dose	t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
Nb-94	Min	0.00E+00	3.02E+00	3.02E+00	3.01E+00	3.00E+00	2.95E+00	2.79E+00	1.97E+00	0.00E+00	0.00E+00	0.00E+00
	Max	0.00E+00	3.72E+00	3.72E+00	3.72E+00	3.72E+00	3.72E+00	3.71E+00	3.69E+00	3.65E+00	3.48E+00	3.48E+00
	Avg	0.00E+00	3.46E+00	3.46E+00	3.46E+00	3.46E+00	3.46E+00	3.45E+00	3.41E+00	3.23E+00	2.56E+00	2.56E+00
	Std	0.00E+00	3.59E-02	3.59E-02	3.64E-02	3.74E-02	4.13E-02	5.48E-02	1.34E-01	6.41E-01	1.28E+00	1.28E+00
äALL	Min	0.00E+00	3.02E+00	3.02E+00	3.01E+00	3.00E+00	2.95E+00	2.79E+00	1.97E+00	0.00E+00	0.00E+00	0.00E+00
	Max	0.00E+00	3.72E+00	3.72E+00	3.72E+00	3.72E+00	3.72E+00	3.71E+00	3.69E+00	3.65E+00	3.48E+00	3.48E+00
	Avg	0.00E+00	3.46E+00	3.46E+00	3.46E+00	3.46E+00	3.46E+00	3.45E+00	3.41E+00	3.23E+00	2.56E+00	2.56E+00
	Std	0.00E+00	3.59E-02	3.59E-02	3.64E-02	3.74E-02	4.13E-02	5.48E-02	1.34E-01	6.41E-01	1.28E+00	1.28E+00

äALL is total dose summed for all nuclides.

Probabilistic results summary : Yankee Rowe Sensitivity Analysis=soil

File : Nb-94_DCGL.RAD

Peak of the mean dose (averaged over observations) at graphical times
 Repetition Time of peak mean dose Peak mean dose
 Years mrem/yr
 1 0.000E+00 3.460E+00

1 RESRAD Regression and Correlation output 11/28/03 08:17 Page: Coef 1

Title : Yankee Rowe Sensitivity Analysis=soil

Input File : Nb-94_DCGL.RAD

Coefficients for peak of mean dose time Dose		PCC	SRC	PRCC	SRRC			
Coefficient =		1	1	1	1			
Repetition =								
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	4	0.03	13	0.03	9	0.03	19	0.02
Well pump intake depth	6	-0.03	15	-0.03	4	-0.05	14	-0.03
Depth of soil mixing layer	27	0.00	30	0.00	29	-0.01	29	0.00
Depth of roots	2	-0.06	9	-0.05	2	-0.26	8	-0.15
Wet weight crop yield of fruit, grain and non-leafy vegetables	33	0.00	33	0.00	12	-0.03	22	-0.01
Wet foliar interception fraction of leafy vegetables	7	-0.03	16	-0.02	15	-0.02	24	-0.01
Weathering removal constant of all vegetation	5	0.03	14	0.03	27	0.01	28	0.00
Mass loading for inhalation	16	0.02	23	0.01	21	0.02	26	0.01
Thickness of contaminated zone	8	0.03	4	0.14	3	0.06	5	0.23
Thickness of Unsaturated zone 1	13	-0.02	8	-0.09	28	0.01	15	0.03
Density of contaminated zone	30	0.00	20	-0.02	25	-0.01	11	-0.05
Contaminated zone total porosity	11	-0.02	5	-0.13	8	-0.04	9	-0.14
Contaminated zone hydraulic conductivity	9	-0.03	17	-0.02	6	-0.04	17	-0.02
Density of saturated zone	26	0.00	7	-0.10	17	-0.02	2	-0.40
Saturated zone total porosity	31	0.00	11	-0.04	16	-0.02	6	-0.21
Saturated zone effective porosity	32	0.00	12	-0.03	20	-0.02	7	-0.18
Saturated zone hydraulic conductivity	20	-0.01	27	-0.01	14	-0.02	23	-0.01
Density of Unsaturated zone 1	14	-0.02	2	-0.44	23	-0.02	3	-0.30
Total Porosity of Unsaturated zone 1	22	-0.01	6	-0.12	26	-0.01	10	-0.08
Effective Porosity of Unsaturated zone 1	10	-0.02	3	-0.34	13	-0.03	4	-0.24
Hydraulic Conductivity of Unsaturated zone 1	17	-0.01	24	-0.01	33	0.00	33	0.00
Contaminated zone b parameter	28	0.00	31	0.00	31	0.00	31	0.00
Saturated zone b parameter	19	0.01	26	0.01	10	-0.03	20	-0.02
Well pumping rate	24	-0.01	19	-0.02	22	0.02	13	0.03
b Parameter of Unsaturated zone 1	12	-0.02	21	-0.01	32	0.00	32	0.00
Irrigation	23	-0.01	18	-0.02	19	-0.02	12	-0.04
Evapotranspiration coefficient	21	0.01	28	0.01	7	0.04	18	0.02
Kd of Nb-94 in Unsaturated Zone 1	25	0.00	29	0.00	30	0.00	30	0.00
Kd of Nb-94 in Saturated Zone	3	0.05	10	0.04	18	0.02	25	0.01
Plant transfer factor for Nb	1	0.47	1	0.45	1	0.81	1	0.78
Meat transfer factor for Nb	29	0.00	32	0.00	24	-0.01	27	-0.01
Milk transfer factor for Nb	18	-0.01	25	-0.01	5	-0.05	16	-0.03
Fish transfer factor for Nb	15	0.02	22	0.01	11	-0.03	21	-0.02
R-SQUARE		0.28		0.28		0.68		0.68

-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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters							
1	SHF3	UNIFORM	.15	.95						
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1				
3	DWIBWT	TRIANGULAR	6	10	30					
4	DM	TRIANGULAR	0	.15	.6					
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999				
6	RWET(2)	TRIANGULAR	.06	.67	.95					
7	WLAM	TRIANGULAR	5.1	18	84					
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003 .8119
.00004	.9495	.00006 .9937	.000076	.9983	.0001	1				
9	THICK0	UNIFORM	.15	3.8						
10	H(1)	UNIFORM	.01	3.65						
11	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
12	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
13	HCCZ	BETA	110	5870	1.398	1.842				
14	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
15	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
16	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572				
17	HCSZ	BETA	110	5870	1.398	1.842				
18	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
19	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154				
20	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572				
21	HCUZ(1)	BETA	110	5870	1.398	1.842				
22	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
23	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
24	UW	UNIFORM	957	1689						
25	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
26	RI	UNIFORM	.252	.618						
27	EVAPTR	UNIFORM	.5	.75						
28	DCACTC(1)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
29	DCACTU1(1)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
30	DCACTS(1)	TRUNCATED LOGNORMAL-N	6.05	1.46	.001	.999				
31	BRTF(28,2)	TRUNCATED LOGNORMAL-N	-5.3	.9	.001	.999				
32	BBIO(28,1)	LOGNORMAL-N	4.6	1.1						

Probabilistic Total Dose Summary

0Nuclide	Peak (j)	Peak Time	Peak Dose	DOSE(j,t), mrem/yr							
Ni-63	Min	0.00E+00	5.16E-03	5.16E-03	4.97E-03	3.34E-03	8.26E-04	1.52E-05	1.09E-11	0.00E+00	0.00E+00
	Max	0.00E+00	4.22E-02	4.22E-02	4.18E-02	4.12E-02	3.90E-02	3.33E-02	1.98E-02	4.65E-03	2.94E-05
	Avg	0.00E+00	3.07E-02	3.07E-02	3.05E-02	3.00E-02	2.83E-02	2.40E-02	1.36E-02	2.76E-03	1.18E-05
	Std	0.00E+00	7.79E-03	7.79E-03	7.76E-03	7.69E-03	7.44E-03	6.74E-03	4.60E-03	1.31E-03	9.43E-06
äALL	Min	0.00E+00	5.16E-03	5.16E-03	4.97E-03	3.34E-03	8.26E-04	1.52E-05	1.09E-11	0.00E+00	0.00E+00
	Max	0.00E+00	4.22E-02	4.22E-02	4.18E-02	4.12E-02	3.90E-02	3.33E-02	1.98E-02	4.65E-03	2.94E-05
	Avg	0.00E+00	3.07E-02	3.07E-02	3.05E-02	3.00E-02	2.83E-02	2.40E-02	1.36E-02	2.76E-03	1.18E-05
	Std	0.00E+00	7.79E-03	7.79E-03	7.76E-03	7.69E-03	7.44E-03	6.74E-03	4.60E-03	1.31E-03	9.43E-06

äALL is total dose summed for all nuclides.

Peak of the mean dose (averaged over observations) at graphical times
 Repetition Time of peak mean dose Peak mean dose
 Years mrem/yr
 1 0.000E+00 3.074E-02

1 RESRAD Regression and Correlation output 11/28/03 08:38 Page: Coef 1
 Title : Yankee Rowe Sensitivity Analysis=soil
 Input File : Ni-63_DCGL.RAD

Coefficients for peak of mean dose time Dose	PCC		SRC		PRCC		SRRC	
	Coefficient =	Repetition =	1	1	1	1	1	1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	15	0.02	22	0.01	28	-0.01	30	0.00
External gamma shielding factor	31	0.00	31	0.00	26	0.01	28	0.00
Well pump intake depth	24	-0.01	26	-0.01	23	-0.01	25	-0.01
Depth of soil mixing layer	9	-0.02	18	-0.02	5	-0.05	13	-0.03
Wet weight crop yield of fruit, grain and non-leafy vegetables	21	0.01	24	0.01	17	-0.02	21	-0.01
Wet foliar interception fraction of leafy vegetables	6	0.03	17	0.02	15	0.02	19	0.01
Weathering removal constant of all vegetation	4	0.04	13	0.03	10	0.03	16	0.02
Mass loading for inhalation	27	-0.01	29	0.00	19	0.02	23	0.01
Thickness of contaminated zone	2	0.14	1	0.64	2	0.13	3	0.51
Thickness of Unsaturated zone 1	16	-0.02	9	-0.08	13	-0.02	9	-0.09
Density of contaminated zone	28	0.01	15	0.03	29	0.00	20	0.01
Contaminated zone total porosity	29	0.01	16	0.02	30	0.00	24	-0.01
Contaminated zone hydraulic conductivity	3	0.05	12	0.04	9	0.03	15	0.02
Density of saturated zone	12	0.02	2	0.42	21	0.02	6	0.32
Saturated zone total porosity	18	0.01	5	0.17	22	0.01	8	0.12
Saturated zone effective porosity	8	0.02	4	0.26	16	0.02	7	0.20
Saturated zone hydraulic conductivity	11	0.02	20	0.01	24	0.01	26	0.00
Density of Unsaturated zone 1	19	0.01	3	0.31	7	0.04	1	0.79
Total Porosity of Unsaturated zone 1	20	0.01	6	0.16	8	0.04	5	0.34
Effective Porosity of Unsaturated zone 1	22	0.01	7	0.15	4	0.05	4	0.46
Hydraulic Conductivity of Unsaturated zone 1	32	0.00	32	0.00	25	-0.01	27	0.00
Contaminated zone b parameter	26	0.01	28	0.01	12	-0.03	18	-0.01
Saturated zone b parameter	17	0.01	23	0.01	11	0.03	17	0.02
Well pumping rate	14	0.02	11	0.04	14	-0.02	10	-0.05
b Parameter of Unsaturated zone 1	23	0.01	25	0.01	31	0.00	31	0.00
Irrigation	7	-0.03	10	-0.07	20	0.02	11	0.03
Evapotranspiration coefficient	30	0.00	30	0.00	27	-0.01	29	0.00
Kd of Ni-63 in Contaminated Zone	5	0.04	14	0.03	6	0.04	14	0.03
Kd of Ni-63 in Unsaturated Zone 1	10	-0.02	19	-0.01	32	0.00	32	0.00
Kd of Ni-63 in Saturated Zone	25	0.01	27	0.01	3	-0.05	12	-0.03
Meat transfer factor for Ni	1	0.18	8	0.12	1	0.70	2	0.56
Fish transfer factor for Ni	13	-0.02	21	-0.01	18	-0.02	22	-0.01
R-SQUARE		0.54		0.54		0.68		0.68

-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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters							
1	SHF3	UNIFORM	.15	.95						
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1				
3	DWIBWT	TRIANGULAR	6	10	30					
4	DM	TRIANGULAR	0	.15	.6					
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999				
6	RWET(2)	TRIANGULAR	.06	.67	.95					
7	WLAM	TRIANGULAR	5.1	18	84					
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003 .8119
.00004	.9495	.00006 .9937	.000076	.9983	.0001	1				
9	THICK0	UNIFORM	.15	3.8						
10	H(1)	UNIFORM	.01	3.65						
11	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
12	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
13	HCCZ	BETA	110	5870	1.398	1.842				
14	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
15	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
16	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572				
17	HCSZ	BETA	110	5870	1.398	1.842				
18	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
19	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154				
20	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572				
21	HCUZ(1)	BETA	110	5870	1.398	1.842				
22	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
23	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
24	UW	UNIFORM	957	1689						
25	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
26	RI	UNIFORM	.252	.618						
27	EVAPTR	UNIFORM	.5	.75						
28	DCACTC(2)	TRUNCATED LOGNORMAL-N	6.86	1.89	.001	.999				
29	DCACTU1(2)	TRUNCATED LOGNORMAL-N	6.86	1.89	.001	.999				
30	DCACTS(2)	TRUNCATED LOGNORMAL-N	6.86	1.89	.001	.999				
31	DCACTC(1)	TRUNCATED LOGNORMAL-N	7.78	2.76	.001	.999				
32	DCACTU1(1)	TRUNCATED LOGNORMAL-N	7.78	2.76	.001	.999				
33	DCACTS(1)	TRUNCATED LOGNORMAL-N	7.78	2.76	.001	.999				
34	DCACTC(3)	TRUNCATED LOGNORMAL-N	8.17	1.7	.001	.999				
35	DCACTU1(3)	TRUNCATED LOGNORMAL-N	8.17	1.7	.001	.999				
36	DCACTS(3)	TRUNCATED LOGNORMAL-N	8.17	1.7	.001	.999				
37	DCACTC(4)	TRUNCATED LOGNORMAL-N	8.68	3.62	.001	.999				
38	DCACTU1(4)	TRUNCATED LOGNORMAL-N	8.68	3.62	.001	.999				
39	DCACTS(4)	TRUNCATED LOGNORMAL-N	8.68	3.62	.001	.999				
40	DCACTC(5)	TRUNCATED LOGNORMAL-N	4.84	3.13	.001	.999				
41	DCACTU1(5)	TRUNCATED LOGNORMAL-N	4.84	3.13	.001	.999				
42	DCACTS(5)	TRUNCATED LOGNORMAL-N	4.84	3.13	.001	.999				
43	BRTF(82,1)	TRUNCATED LOGNORMAL-N	-5.52	.9	.001	.999				
44	BRTF(88,1)	TRUNCATED LOGNORMAL-N	-3.22	.9	.001	.999				
45	BRTF(90,1)	TRUNCATED LOGNORMAL-N	-6.91	.9	.001	.999				
46	BRTF(92,1)	TRUNCATED LOGNORMAL-N	-6.21	.9	.001	.999				
47	BRTF(82,2)	TRUNCATED LOGNORMAL-N	-7.13	.7	.001	.999				
48	BRTF(94,2)	TRUNCATED LOGNORMAL-N	-9.21	.2	.001	.999				

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters							
49	BRTF(88,2)	TRUNCATED LOGNORMAL-N	-6.91	.7	.001	.999				
50	BRTF(90,2)	TRUNCATED LOGNORMAL-N	-9.21	1	.001	.999				
51	BRTF(92,2)	TRUNCATED LOGNORMAL-N	-7.13	.7	.001	.999				
52	BRTF(82,3)	TRUNCATED LOGNORMAL-N	-8.11	.9	.001	.999				
53	BRTF(94,3)	TRUNCATED LOGNORMAL-N	-13.82	.5	.001	.999				
54	BRTF(88,3)	TRUNCATED LOGNORMAL-N	-6.91	.5	.001	.999				
55	BRTF(90,3)	TRUNCATED LOGNORMAL-N	-12.21	.9	.001	.999				
56	BRTF(92,3)	TRUNCATED LOGNORMAL-N	-7.82	.6	.001	.999				
57	BBIO(92,1)	LOGNORMAL-N	2.3	1.1						
58	BBIO(82,1)	LOGNORMAL-N	5.7	1.1						
59	BBIO(94,1)	LOGNORMAL-N	3.4	1.1						
60	BBIO(88,1)	LOGNORMAL-N	3.9	1.1						
61	BBIO(90,1)	LOGNORMAL-N	4.6	1.1						

Probabilistic Total Dose Summary

Nuclide	Peak (j)	Peak Time	Peak Dose	DOSE(j,t), mrem/yr							
				t= 0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
Pu-238	Min	0.00E+00	1.25E-01	1.25E-01	1.11E-01	7.73E-02	2.19E-02	5.95E-04	5.12E-08	0.00E+00	0.00E+00
	Max	2.67E+01	1.01E+00	8.67E-01	8.58E-01	8.44E-01	8.59E-01	9.82E-01	6.66E-01	1.53E-01	6.65E-04
	Avg	1.33E-02	7.48E-01	7.48E-01	7.41E-01	7.28E-01	6.84E-01	5.74E-01	3.14E-01	5.76E-02	1.86E-04
	Std	5.96E-01	1.86E-01	1.86E-01	1.85E-01	1.83E-01	1.76E-01	1.58E-01	1.04E-01	2.62E-02	1.40E-04
äALL	Min	0.00E+00	1.25E-01	1.25E-01	1.11E-01	7.73E-02	2.19E-02	5.95E-04	5.12E-08	0.00E+00	0.00E+00
	Max	2.67E+01	1.01E+00	8.67E-01	8.58E-01	8.44E-01	8.59E-01	9.82E-01	6.66E-01	1.53E-01	6.65E-04
	Avg	1.33E-02	7.48E-01	7.48E-01	7.41E-01	7.28E-01	6.84E-01	5.74E-01	3.14E-01	5.76E-02	1.86E-04
	Std	5.96E-01	1.86E-01	1.86E-01	1.85E-01	1.83E-01	1.76E-01	1.58E-01	1.04E-01	2.62E-02	1.40E-04

äALL is total dose summed for all nuclides.

Probabilistic results summary : Yankee Rowe Sensitivity Analysis=soil

File : Pu-238_DCGL.RAD

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	7.476E-01

1 RESRAD Regression and Correlation output 12/01/03 10:24 Page: Coef 1

Title : Yankee Rowe Sensitivity Analysis=soil

Input File : Pu-238_DCGL.RAD

Coefficients for peak of mean dose time Dose Coefficient = Repetition =	PCC		SRC		PRCC		SRRC		
	1		1		1		1		
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	
Indoor dust filtration factor	31	0.02	35	0.01	3	0.38	5	0.25	
External gamma shielding factor	20	0.02	28	0.02	8	0.04	13	0.02	
Well pump intake depth	40	-0.02	42	-0.01	12	-0.03	17	-0.02	
Depth of soil mixing layer	53	-0.01	55	-0.01	36	0.01	40	0.01	
Wet weight crop yield of fruit, grain and non-leafy vegetables	13	-0.03	22	-0.02	6	-0.08	11	-0.05	
Wet foliar interception fraction of leafy vegetables	60	0.00	60	0.00	43	0.01	46	0.00	
Weathering removal constant of all vegetation	28	0.02	32	0.01	5	-0.12	10	-0.07	
Mass loading for inhalation	39	-0.02	41	-0.01	2	0.42	4	0.28	
Thickness of contaminated zone	1	0.14	1	0.62	4	0.16	1	0.62	
Thickness of Unsaturated zone 1	25	-0.02	8	-0.10	50	0.00	18	-0.02	
Density of contaminated zone	54	-0.01	13	-0.03	61	0.00	60	0.00	
Contaminated zone total porosity	48	-0.01	9	-0.04	55	0.00	28	-0.01	
Contaminated zone hydraulic conductivity	12	0.03	21	0.02	38	0.01	42	0.01	
Density of saturated zone	24	0.02	3	0.51	41	-0.01	8	-0.18	
Saturated zone total porosity	16	0.03	5	0.30	60	0.00	56	0.00	
Saturated zone effective porosity	34	0.02	7	0.21	30	-0.02	9	-0.18	
Saturated zone hydraulic conductivity	14	0.03	23	0.02	19	0.02	25	0.01	
Density of Unsaturated zone 1	22	0.02	2	0.56	22	-0.02	2	-0.42	
Total Porosity of Unsaturated zone 1	33	0.02	6	0.23	20	-0.02	6	-0.23	
Effective Porosity of Unsaturated zone 1	17	0.03	4	0.31	26	-0.02	7	-0.20	
Hydraulic Conductivity of Unsaturated zone 1	55	0.00	56	0.00	37	-0.01	41	-0.01	
Contaminated zone b parameter	43	0.01	45	0.01	58	0.00	59	0.00	
Saturated zone b parameter	18	-0.03	25	-0.02	15	-0.03	21	-0.02	
Well pumping rate	59	0.00	58	0.00	51	0.00	38	-0.01	
b Parameter of Unsaturated zone 1	61	0.00	61	0.00	33	0.02	36	0.01	
Irrigation	57	0.00	47	-0.01	59	0.00	61	0.00	
Evapotranspiration coefficient	23	0.02	29	0.02	23	0.02	27	0.01	
Kd of Pu-238 in Contaminated Zone	36	-0.02	38	-0.01	21	0.02	26	0.01	
Kd of Pu-238 in Unsaturated Zone 1	2	0.06	10	0.04	45	-0.01	48	0.00	
Kd of Pu-238 in Saturated Zone	37	0.02	39	0.01	48	0.00	51	0.00	
Kd of Pb-210 in Contaminated Zone	30	0.02	34	0.01	17	-0.03	23	-0.01	
Kd of Pb-210 in Unsaturated Zone 1	58	0.00	59	0.00	56	0.00	57	0.00	
Kd of Pb-210 in Saturated Zone	52	0.01	54	0.01	40	-0.01	44	-0.01	
Kd of Ra-226 in Contaminated Zone	56	0.00	57	0.00	42	0.01	45	0.01	
Kd of Ra-226 in Unsaturated Zone 1	46	0.01	49	0.01	28	0.02	32	0.01	
Kd of Ra-226 in Saturated Zone	10	0.03	19	0.02	49	0.00	52	0.00	
Kd of Th-230 in Contaminated Zone	19	0.02	27	0.02	47	0.00	50	0.00	
Kd of Th-230 in Unsaturated Zone 1	26	0.02	30	0.02	31	-0.02	34	-0.01	
Kd of Th-230 in Saturated Zone	51	-0.01	53	-0.01	35	0.01	39	0.01	
Kd of U-234 in Contaminated Zone	6	0.04	15	0.03	25	0.02	30	0.01	
Kd of U-234 in Unsaturated Zone 1	50	0.01	52	0.01	18	0.02	24	0.01	
Kd of U-234 in Saturated Zone	21	0.02	26	0.02	57	0.00	58	0.00	
Plant transfer factor for Pb	29	-0.02	33	-0.01	39	-0.01	43	-0.01	
Plant transfer factor for Ra	3	-0.06	11	-0.04	32	-0.02	35	-0.01	
Plant transfer factor for Th	42	-0.02	44	-0.01	54	0.00	55	0.00	
Plant transfer factor for U	7	0.04	16	0.02	24	0.02	29	0.01	
Meat transfer factor for Pb	45	-0.01	48	-0.01	52	0.00	53	0.00	
Meat transfer factor for Pu	8	0.03	17	0.02	1	0.45	3	0.30	
Meat transfer factor for Ra	41	-0.02	43	-0.01	44	-0.01	47	0.00	
Meat transfer factor for Th	4	0.05	12	0.03	29	0.02	33	0.01	
Meat transfer factor for U	5	-0.04	14	-0.03	14	-0.03	20	-0.02	
Milk transfer factor for Pb	38	0.02	40	0.01	13	0.03	19	0.02	
Milk transfer factor for Pu	49	0.01	51	0.01	7	0.05	12	0.03	
Milk transfer factor for Ra	15	-0.03	24	-0.02	10	-0.04	15	-0.02	
Milk transfer factor for Th	11	-0.03	20	-0.02	53	0.00	54	0.00	
Milk transfer factor for U	44	-0.01	46	-0.01	46	0.01	49	0.00	
Fish transfer factor for U	27	0.02	31	0.02	16	-0.03	22	-0.02	
Fish transfer factor for Pb	9	-0.03	18	-0.02	34	-0.02	37	-0.01	
Fish transfer factor for Pu	47	-0.01	50	-0.01	27	-0.02	31	-0.01	
Fish transfer factor for Ra	35	-0.02	37	-0.01	9	-0.04	14	-0.02	
Fish transfer factor for Th	32	-0.02	36	-0.01	11	-0.03	16	-0.02	
R-SQUARE			0.54		0.54		0.65		0.65

-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.

Peak of the mean dose (averaged over observations) at graphical times
 Repetition Time of peak mean dose Peak mean dose
 Years mrem/yr
 1 0.000E+00 8.302E-01

1 RESRAD Regression and Correlation output 12/01/03 10:59 Page: Coef 1
 Title : Yankee Rowe Sensitivity Analysis=soil
 Input File : Pu-239_DCGL.RAD

Coefficients for peak of mean dose time Dose
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	18	0.03	22	0.02	3	0.40	4	0.26
External gamma shielding factor	42	-0.01	42	-0.01	34	-0.01	41	-0.01
Well pump intake depth	15	-0.03	20	-0.02	12	-0.04	20	-0.02
Depth of soil mixing layer	28	-0.02	29	-0.01	15	-0.04	23	-0.02
Wet weight crop yield of fruit, grain and non-leafy vegetables	26	0.02	28	0.01	9	-0.05	16	-0.03
Wet foliar interception fraction of leafy vegetables	3	0.05	14	0.03	20	0.03	28	0.02
Weathering removal constant of all vegetation	49	0.00	49	0.00	5	-0.11	10	-0.06
Mass loading for inhalation	38	0.01	38	0.01	2	0.44	3	0.29
Thickness of contaminated zone	1	0.14	3	0.65	4	0.14	1	0.56
Thickness of Unsaturated zone 1	32	-0.02	10	-0.08	25	-0.02	8	-0.07
Density of contaminated zone	8	-0.04	8	-0.17	38	0.01	17	0.03
Contaminated zone total porosity	9	-0.03	9	-0.15	35	0.01	14	0.03
Contaminated zone hydraulic conductivity	36	0.02	36	0.01	19	0.03	27	0.02
Density of saturated zone	16	-0.03	2	-0.68	54	0.00	31	-0.01
Saturated zone total porosity	19	-0.03	7	-0.31	48	0.00	22	0.02
Saturated zone effective porosity	10	-0.03	5	-0.37	52	0.00	26	-0.02
Saturated zone hydraulic conductivity	45	-0.01	45	-0.01	21	0.03	29	0.02
Density of Unsaturated zone 1	6	0.04	1	0.87	42	0.00	7	-0.08
Total Porosity of Unsaturated zone 1	4	0.05	4	0.54	39	0.01	11	0.06
Effective Porosity of Unsaturated zone 1	12	0.03	6	0.37	30	-0.01	5	-0.12
Hydraulic Conductivity of Unsaturated zone 1	50	0.00	50	0.00	29	0.01	37	0.01
Contaminated zone b parameter	25	-0.02	27	-0.02	8	-0.05	15	-0.03
Saturated zone b parameter	7	0.04	16	0.03	33	-0.01	40	-0.01
Well pumping rate	22	0.02	11	0.06	17	0.03	9	0.07
b Parameter of Unsaturated zone 1	40	-0.01	40	-0.01	10	-0.04	18	-0.03
Irrigation	27	-0.02	12	-0.05	13	-0.04	6	-0.08
Evapotranspiration coefficient	35	-0.02	35	-0.01	47	0.00	50	0.00
Kd of Pu-239 in Contaminated Zone	53	0.00	53	0.00	7	0.06	13	0.04
Kd of Pu-239 in Unsaturated Zone 1	48	0.00	48	0.00	40	-0.01	44	0.00
Kd of Pu-239 in Saturated Zone	54	0.00	54	0.00	28	-0.01	36	-0.01
Kd of Ac-227 in Contaminated Zone	14	0.03	19	0.02	49	0.00	51	0.00
Kd of Ac-227 in Unsaturated Zone 1	17	-0.03	21	-0.02	16	0.04	24	0.02
Kd of Ac-227 in Saturated Zone	51	0.00	51	0.00	27	-0.01	35	-0.01
Kd of Pa-231 in Contaminated Zone	31	0.02	32	0.01	45	0.00	48	0.00
Kd of Pa-231 in Unsaturated Zone 1	47	0.00	47	0.00	50	0.00	52	0.00
Kd of Pa-231 in Saturated Zone	43	-0.01	43	-0.01	24	-0.02	33	-0.01
Kd of U-235 in Contaminated Zone	39	-0.01	39	-0.01	32	-0.01	39	-0.01
Kd of U-235 in Unsaturated Zone 1	34	0.02	34	0.01	22	-0.02	30	-0.01
Kd of U-235 in Saturated Zone	30	0.02	31	0.01	51	0.00	53	0.00
Plant transfer factor for Ac	29	-0.02	30	-0.01	41	0.00	45	0.00
Plant transfer factor for Pa	52	0.00	52	0.00	53	0.00	54	0.00
Plant transfer factor for U	41	0.01	41	0.01	31	-0.01	38	-0.01
Meat transfer factor for Pu	2	0.05	13	0.04	1	0.46	2	0.30
Meat transfer factor for Ac	23	-0.02	25	-0.02	11	0.04	19	0.03
Meat transfer factor for Pa	33	0.02	33	0.01	37	0.01	43	0.00
Meat transfer factor for U	13	-0.03	18	-0.02	26	-0.02	34	-0.01
Milk transfer factor for Pu	5	0.04	15	0.03	6	0.08	12	0.05
Milk transfer factor for Ac	46	-0.01	46	0.00	23	-0.02	32	-0.01
Milk transfer factor for Pa	11	-0.03	17	-0.02	18	-0.03	25	-0.02
Milk transfer factor for U	21	-0.03	24	-0.02	46	0.00	49	0.00
Fish transfer factor for Pu	20	0.03	23	0.02	14	0.04	21	0.02
Fish transfer factor for Ac	44	0.01	44	0.01	44	0.00	47	0.00
Fish transfer factor for Pa	37	-0.01	37	-0.01	36	-0.01	42	0.00
Fish transfer factor for U	24	0.02	26	0.02	43	0.00	46	0.00
R-SQUARE		0.54		0.54		0.66		0.66

-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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters							
1	SHF3	UNIFORM	.15	.95						
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1				
3	DWIBWT	TRIANGULAR	6	10	30					
4	DM	TRIANGULAR	0	.15	.6					
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999				
6	RWET(2)	TRIANGULAR	.06	.67	.95					
7	WLAM	TRIANGULAR	5.1	18	84					
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003 .8119
.00004	.9495	.00006 .9937	.000076	.9983	.0001	1				
9	THICK0	UNIFORM	.15	3.8						
10	H(1)	UNIFORM	.01	3.65						
11	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
12	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
13	HCCZ	BETA	110	5870	1.398	1.842				
14	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
15	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
16	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572				
17	HCSZ	BETA	110	5870	1.398	1.842				
18	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
19	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154				
20	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572				
21	HCUZ(1)	BETA	110	5870	1.398	1.842				
22	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
23	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
24	UW	UNIFORM	957	1689						
25	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
26	RI	UNIFORM	.252	.618						
27	EVAPTR	UNIFORM	.5	.75						
28	DCACTC(4)	TRUNCATED LOGNORMAL-N	6.86	1.89	.001	.999				
29	DCACTU1(4)	TRUNCATED LOGNORMAL-N	6.86	1.89	.001	.999				
30	DCACTS(4)	TRUNCATED LOGNORMAL-N	6.86	1.89	.001	.999				
31	DCACTU1(1)	TRUNCATED LOGNORMAL-N	7.28	3.15	.001	.999				
32	DCACTS(1)	TRUNCATED LOGNORMAL-N	7.28	3.15	.001	.999				
33	DCACTC(2)	TRUNCATED LOGNORMAL-N	2.84	2.25	.001	.999				
34	DCACTU1(2)	TRUNCATED LOGNORMAL-N	2.84	2.25	.001	.999				
35	DCACTS(2)	TRUNCATED LOGNORMAL-N	2.84	2.25	.001	.999				
36	DCACTC(5)	TRUNCATED LOGNORMAL-N	8.68	3.62	.001	.999				
37	DCACTU1(5)	TRUNCATED LOGNORMAL-N	8.68	3.62	.001	.999				
38	DCACTS(5)	TRUNCATED LOGNORMAL-N	8.68	3.62	.001	.999				
39	DCACTC(6)	TRUNCATED LOGNORMAL-N	4.84	3.13	.001	.999				
40	DCACTU1(6)	TRUNCATED LOGNORMAL-N	4.84	3.13	.001	.999				
41	DCACTS(6)	TRUNCATED LOGNORMAL-N	4.84	3.13	.001	.999				
42	BRTF(94,1)	TRUNCATED LOGNORMAL-N	-6.91	.9	.001	.999				
43	BRTF(93,1)	TRUNCATED LOGNORMAL-N	-3.91	.9	.001	.999				
44	BRTF(90,1)	TRUNCATED LOGNORMAL-N	-6.91	.9	.001	.999				
45	BRTF(92,1)	TRUNCATED LOGNORMAL-N	-6.21	.9	.001	.999				
46	BRTF(94,2)	TRUNCATED LOGNORMAL-N	-9.21	.2	.001	.999				
47	BRTF(95,2)	TRUNCATED LOGNORMAL-N	-9.9	.2	.001	.999				
48	BRTF(93,2)	TRUNCATED LOGNORMAL-N	-6.91	.7	.001	.999				

Probabilistic Input (cont.)

Number	Name	Distribution	Parameters							
49	BRTF(90,2)	TRUNCATED LOGNORMAL-N	-9.21	1	.001	.999				
50	BRTF(92,2)	TRUNCATED LOGNORMAL-N	-7.13	.7	.001	.999				
51	BRTF(94,3)	TRUNCATED LOGNORMAL-N	-13.82	.5	.001	.999				
52	BRTF(95,3)	TRUNCATED LOGNORMAL-N	-13.12	.7	.001	.999				
53	BRTF(93,3)	TRUNCATED LOGNORMAL-N	-11.51	.7	.001	.999				
54	BRTF(90,3)	TRUNCATED LOGNORMAL-N	-12.21	.9	.001	.999				
55	BRTF(92,3)	TRUNCATED LOGNORMAL-N	-7.82	.6	.001	.999				
56	BBIO(94,1)	LOGNORMAL-N	3.4	1.1						
57	BBIO(95,1)	LOGNORMAL-N	3.4	1.1						
58	BBIO(93,1)	LOGNORMAL-N	3.4	1.1						
59	BBIO(90,1)	LOGNORMAL-N	4.6	1.1						
60	BBIO(92,1)	LOGNORMAL-N	2.3	1.1						

Nuclide (j)	Peak Time	Peak Dose	t=	Probabilistic Total Dose Summary						
				DOSE(j,t), mrem/yr	DOSE(j,t), mrem/yr	DOSE(j,t), mrem/yr	DOSE(j,t), mrem/yr	DOSE(j,t), mrem/yr	DOSE(j,t), mrem/yr	DOSE(j,t), mrem/yr
Pu-241			0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
Min	0.00E+00	3.38E-03	1.00E-03	1.20E-03	1.56E-03	2.47E-03	3.26E-03	1.95E-03	0.00E+00	0.00E+00
Max	5.83E+02	1.43E-01	1.43E-01	1.38E-01	1.29E-01	1.01E-01	5.78E-02	4.88E-02	3.06E-02	8.92E-03
Avg	5.31E+01	2.71E-02	1.35E-02	1.42E-02	1.55E-02	1.91E-02	2.41E-02	2.43E-02	1.68E-02	4.37E-03
Std	2.64E+01	1.06E-02	1.29E-02	1.24E-02	1.14E-02	9.03E-03	6.96E-03	7.13E-03	6.29E-03	2.75E-03
äALL										
Min	0.00E+00	3.38E-03	1.00E-03	1.20E-03	1.56E-03	2.47E-03	3.26E-03	1.95E-03	0.00E+00	0.00E+00
Max	5.83E+02	1.43E-01	1.43E-01	1.38E-01	1.29E-01	1.01E-01	5.78E-02	4.88E-02	3.06E-02	8.92E-03
Avg	5.31E+01	2.71E-02	1.35E-02	1.42E-02	1.55E-02	1.91E-02	2.41E-02	2.43E-02	1.68E-02	4.37E-03
Std	2.64E+01	1.06E-02	1.29E-02	1.24E-02	1.14E-02	9.03E-03	6.96E-03	7.13E-03	6.29E-03	2.75E-03

äALL is total dose summed for all nuclides.

Probabilistic results summary : Yankee Rowe Sensitivity Analysis=soil

File : Pu-241_DCGL.RAD

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	5.380E+01	2.542E-02

1 RESRAD Regression and Correlation output 12/01/03 13:21 Page: Coef 1

Title : Yankee Rowe Sensitivity Analysis=soil

Input File : Pu-241_DCGL.RAD

Coefficients for peak of mean dose time Dose Coefficient = Repetition =	PCC		SRC		PRCC		SRRC	
	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	8	0.04	15	0.03	6	0.09	12	0.05
External gamma shielding factor	5	0.04	12	0.03	4	0.15	9	0.09
Well pump intake depth	52	0.00	55	0.00	53	0.00	54	0.00
Depth of soil mixing layer	4	0.05	8	0.03	15	0.03	22	0.02
Wet weight crop yield of fruit, grain and non-leafy vegetables	12	0.03	22	0.02	56	0.00	58	0.00
Wet foliar interception fraction of leafy vegetables	16	-0.02	27	-0.01	57	0.00	59	0.00
Weathering removal constant of all vegetation	3	-0.05	7	-0.03	7	-0.07	14	-0.04
Mass loading for inhalation	15	0.02	25	0.02	5	0.12	10	0.07
Thickness of contaminated zone	1	0.15	1	0.71	3	0.18	1	0.72
Thickness of Unsaturated zone 1	48	-0.01	16	-0.02	32	0.02	11	0.07
Density of contaminated zone	43	0.01	9	0.03	39	0.01	13	0.05
Contaminated zone total porosity	44	0.01	10	0.03	43	0.01	15	0.04
Contaminated zone hydraulic conductivity	55	0.00	56	0.00	47	0.01	49	0.00
Density of saturated zone	54	0.00	6	-0.05	46	-0.01	7	-0.11
Saturated zone total porosity	47	-0.01	5	-0.07	40	-0.01	8	-0.11
Saturated zone effective porosity	53	0.00	11	0.03	60	0.00	41	0.01
Saturated zone hydraulic conductivity	60	0.00	60	0.00	36	0.01	42	0.01
Density of Unsaturated zone 1	57	0.00	21	-0.02	23	0.02	2	0.47
Total Porosity of Unsaturated zone 1	32	0.01	3	0.14	14	0.03	4	0.32
Effective Porosity of Unsaturated zone 1	23	-0.01	2	-0.16	35	0.01	6	0.14
Hydraulic Conductivity of Unsaturated zone 1	24	-0.01	34	-0.01	19	-0.03	26	-0.02
Contaminated zone b parameter	50	0.00	53	0.00	24	-0.02	30	-0.01
Saturated zone b parameter	49	0.00	52	0.00	13	-0.04	21	-0.02
Well pumping rate	46	0.01	26	0.01	49	0.01	34	0.01
b Parameter of Unsaturated zone 1	34	0.01	43	0.01	22	-0.03	29	-0.01
Irrigation	38	0.01	19	0.02	59	0.00	55	0.00
Evapotranspiration coefficient	6	0.04	13	0.03	10	0.04	18	0.03
Kd of Pu-241 in Contaminated Zone	19	0.02	30	0.01	2	0.27	5	0.16
Kd of Pu-241 in Unsaturated Zone 1	7	-0.04	14	-0.03	26	0.02	32	0.01
Kd of Pu-241 in Saturated Zone	22	-0.01	33	-0.01	55	0.00	57	0.00
Kd of Am-241 in Unsaturated Zone 1	13	-0.02	23	-0.02	18	-0.03	25	-0.02
Kd of Am-241 in Saturated Zone	37	0.01	46	0.01	45	-0.01	48	0.00
Kd of Np-237 in Contaminated Zone	11	0.03	20	0.02	38	0.01	44	0.01
Kd of Np-237 in Unsaturated Zone 1	42	0.01	50	0.00	8	-0.05	16	-0.03
Kd of Np-237 in Saturated Zone	41	-0.01	49	-0.01	30	0.02	37	0.01
Kd of Th-229 in Contaminated Zone	51	0.00	54	0.00	37	-0.01	43	-0.01
Kd of Th-229 in Unsaturated Zone 1	10	-0.03	18	-0.02	12	0.04	20	0.02
Kd of Th-229 in Saturated Zone	39	-0.01	47	-0.01	48	-0.01	50	0.00
Kd of U-233 in Contaminated Zone	59	0.00	59	0.00	20	-0.03	27	-0.02
Kd of U-233 in Unsaturated Zone 1	40	-0.01	48	-0.01	17	0.03	24	0.02
Kd of U-233 in Saturated Zone	45	-0.01	51	0.00	34	0.01	40	0.01
Plant transfer factor for Pu	2	0.15	4	0.10	1	0.58	3	0.42
Plant transfer factor for Np	33	0.01	42	0.01	31	-0.02	38	-0.01
Plant transfer factor for Th	9	0.04	17	0.02	33	0.01	39	0.01
Plant transfer factor for U	31	0.01	41	0.01	21	0.03	28	0.01
Meat transfer factor for Pu	25	0.01	35	0.01	28	0.02	35	0.01
Meat transfer factor for Am	20	0.02	31	0.01	16	0.03	23	0.02
Meat transfer factor for Np	28	-0.01	38	-0.01	44	-0.01	47	0.00
Meat transfer factor for Th	26	0.01	36	0.01	52	0.00	53	0.00
Meat transfer factor for U	18	-0.02	29	-0.01	51	-0.01	52	0.00
Milk transfer factor for Pu	30	0.01	40	0.01	29	0.02	36	0.01
Milk transfer factor for Am	58	0.00	58	0.00	11	0.04	19	0.02
Milk transfer factor for Np	21	-0.01	32	-0.01	9	-0.05	17	-0.03
Milk transfer factor for Th	14	0.02	24	0.02	50	-0.01	51	0.00
Milk transfer factor for U	56	0.00	57	0.00	27	-0.02	33	-0.01
Fish transfer factor for Pu	36	-0.01	45	-0.01	41	0.01	45	0.01
Fish transfer factor for Am	29	0.01	39	0.01	58	0.00	60	0.00
Fish transfer factor for Np	27	0.01	37	0.01	25	0.02	31	0.01
Fish transfer factor for Th	17	0.02	28	0.01	54	0.00	56	0.00
Fish transfer factor for U	35	-0.01	44	-0.01	42	-0.01	46	-0.01
R-SQUARE		0.56		0.56		0.66		0.66

-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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters																	
1	SHF3	UNIFORM	.15	.95																
2	DWIBWT	TRIANGULAR	6	10	30															
3	DM	TRIANGULAR	0	.15	.6															
4	DROOT	UNIFORM	.3	3.8																
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999														
6	RWET(2)	TRIANGULAR	.06	.67	.95															
7	WLAM	TRIANGULAR	5.1	18	84															
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119									
.00004	.9495	.00006	.9937	.000076	.9983	.0001	1													
9	THICK0	UNIFORM	.15	3.8																
10	H(1)	UNIFORM	.01	3.65																
11	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
12	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154														
13	HCCZ	BETA	110	5870	1.398	1.842														
14	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
15	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154														
16	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572														
17	HCSZ	BETA	110	5870	1.398	1.842														
18	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002														
19	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154														
20	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572														
21	HCUZ(1)	BETA	110	5870	1.398	1.842														
22	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
23	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
24	UW	UNIFORM	957	1689																
25	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9														
26	RI	UNIFORM	.252	.618																
27	EVAPTR	UNIFORM	.5	.75																
28	DCACTU1(1)	TRUNCATED LOGNORMAL-N	5.94	3.22	.001	.999														
29	DCACTS(1)	TRUNCATED LOGNORMAL-N	5.94	3.22	.001	.999														
30	BRTF(51,1)	TRUNCATED LOGNORMAL-N	-4.61	1	.001	.999														
31	BRTF(51,2)	TRUNCATED LOGNORMAL-N	-6.91	.9	.001	.999														
32	BRTF(51,3)	TRUNCATED LOGNORMAL-N	-9.72	.9	.001	.999														
33	BBIO(51,1)	LOGNORMAL-N	4.6	1.1																

Probabilistic Total Dose Summary

ONuclide	Peak (j)	Peak Time	Peak Dose	t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
Sb-125	Min	0.00E+00	7.00E-01	7.00E-01	5.44E-01	3.28E-01	5.61E-02	3.58E-04	6.39E-12	0.00E+00	0.00E+00	0.00E+00
	Max	0.00E+00	8.67E-01	8.67E-01	6.75E-01	4.09E-01	7.10E-02	4.76E-04	1.17E-11	0.00E+00	0.00E+00	0.00E+00
	Avg	0.00E+00	7.82E-01	7.82E-01	6.09E-01	3.69E-01	6.40E-02	4.29E-04	1.05E-11	0.00E+00	0.00E+00	0.00E+00
	Std	0.00E+00	8.89E-03	8.89E-03	6.97E-03	4.30E-03	7.93E-04	6.56E-06	3.78E-13	0.00E+00	0.00E+00	0.00E+00
äALL	Min	0.00E+00	7.00E-01	7.00E-01	5.44E-01	3.28E-01	5.61E-02	3.58E-04	6.39E-12	0.00E+00	0.00E+00	0.00E+00
	Max	0.00E+00	8.67E-01	8.67E-01	6.75E-01	4.09E-01	7.10E-02	4.76E-04	1.17E-11	0.00E+00	0.00E+00	0.00E+00
	Avg	0.00E+00	7.82E-01	7.82E-01	6.09E-01	3.69E-01	6.40E-02	4.29E-04	1.05E-11	0.00E+00	0.00E+00	0.00E+00
	Std	0.00E+00	8.89E-03	8.89E-03	6.97E-03	4.30E-03	7.93E-04	6.56E-06	3.78E-13	0.00E+00	0.00E+00	0.00E+00

äALL is total dose summed for all nuclides.

Probabilistic results summary : Yankee Rowe Sensitivity Analysis=soil

File : Sb-125_DCGL.RAD

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	7.823E-01

1 RESRAD Regression and Correlation output 11/28/03 08:30 Page: Coef 1

Title : Yankee Rowe Sensitivity Analysis=soil

Input File : Sb-125_DCGL.RAD

Coefficients for peak of mean dose time Dose		PCC		SRC		PRCC		SRRC	
Coefficient =	Repetition =	1		1		1		1	
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor		5	0.04	14	0.03	9	0.03	19	0.02
Well pump intake depth		7	-0.03	16	-0.02	5	-0.05	12	-0.03
Depth of soil mixing layer		32	0.00	32	0.00	33	0.00	33	0.00
Depth of roots		2	-0.14	9	-0.09	2	-0.31	5	-0.17
Wet weight crop yield of fruit, grain and non-leafy vegetables		27	0.00	28	0.00	18	-0.02	25	-0.01
Wet foliar interception fraction of leafy vegetables		9	-0.03	18	-0.02	10	-0.03	20	-0.02
Weathering removal constant of all vegetation		8	0.03	17	0.02	24	0.02	29	0.01
Mass loading for inhalation		14	0.02	21	0.01	22	0.02	28	0.01
Thickness of contaminated zone		4	0.04	5	0.18	4	0.06	3	0.23
Thickness of Unsaturated zone 1		19	-0.01	11	-0.05	30	0.01	13	0.03
Density of contaminated zone		31	0.00	23	-0.01	14	-0.03	10	-0.09
Contaminated zone total porosity		13	-0.02	10	-0.09	7	-0.04	7	-0.16
Contaminated zone hydraulic conductivity		10	-0.02	19	-0.02	6	-0.04	15	-0.02
Density of saturated zone		18	-0.01	4	-0.26	17	-0.02	2	-0.38
Saturated zone total porosity		20	-0.01	7	-0.11	15	-0.02	4	-0.20
Saturated zone effective porosity		21	-0.01	6	-0.12	21	-0.02	6	-0.16
Saturated zone hydraulic conductivity		16	-0.02	22	-0.01	8	-0.04	17	-0.02
Density of Unsaturated zone 1		15	-0.02	2	-0.35	31	-0.01	9	-0.10
Total Porosity of Unsaturated zone 1		24	-0.01	8	-0.09	32	0.00	16	0.02
Effective Porosity of Unsaturated zone 1		11	-0.02	3	-0.26	23	-0.02	8	-0.14
Hydraulic Conductivity of Unsaturated zone 1		22	-0.01	24	-0.01	16	-0.02	24	-0.01
Contaminated zone b parameter		28	0.00	29	0.00	27	0.01	31	0.01
Saturated zone b parameter		30	0.00	31	0.00	12	-0.03	22	-0.01
Well pumping rate		17	-0.01	12	-0.03	28	0.01	18	0.02
b Parameter of Unsaturated zone 1		23	-0.01	25	-0.01	26	0.01	30	0.01
Irrigation		33	0.00	33	0.00	25	-0.01	14	-0.03
Evapotranspiration coefficient		25	0.00	26	0.00	11	0.03	21	0.02
Kd of Sb-125 in Unsaturated Zone 1		26	0.00	27	0.00	29	0.01	32	0.00
Kd of Sb-125 in Saturated Zone		3	0.05	13	0.03	13	0.03	23	0.01
Plant transfer factor for Sb		1	0.72	1	0.70	1	0.84	1	0.80
Meat transfer factor for Sb		6	0.03	15	0.02	3	0.07	11	0.04
Milk transfer factor for Sb		29	0.00	30	0.00	20	-0.02	27	-0.01
Fish transfer factor for Sb		12	0.02	20	0.01	19	-0.02	26	-0.01
R-SQUARE			0.56		0.56		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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters							
1	SHF3	UNIFORM	.15	.95						
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1				
3	DWIBWT	TRIANGULAR	6	10	30					
4	DM	TRIANGULAR	0	.15	.6					
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999				
6	RWET(2)	TRIANGULAR	.06	.67	.95					
7	WLAM	TRIANGULAR	5.1	18	84					
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003 .8119
.00004	.9495	.00006 .9937	.000076	.9983	.0001	1				
9	THICK0	UNIFORM	.15	3.8						
10	H(1)	UNIFORM	.01	3.65						
11	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
12	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
13	HCCZ	BETA	110	5870	1.398	1.842				
14	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
15	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
16	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572				
17	HCSZ	BETA	110	5870	1.398	1.842				
18	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
19	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154				
20	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572				
21	HCUZ(1)	BETA	110	5870	1.398	1.842				
22	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
23	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
24	UW	UNIFORM	957	1689						
25	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
26	RI	UNIFORM	.252	.618						
27	EVAPTR	UNIFORM	.5	.75						
28	DCACTC(1)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
29	DCACTU1(1)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
30	DCACTS(1)	TRUNCATED LOGNORMAL-N	3.45	2.12	.001	.999				
31	BRTF(38,2)	TRUNCATED LOGNORMAL-N	-4.61	.4	.001	.999				
32	BRTF(38,3)	TRUNCATED LOGNORMAL-N	-6.21	.5	.001	.999				
33	BBIO(38,1)	LOGNORMAL-N	4.1	1.1						

Probabilistic Total Dose Summary

ONuclide	Peak (j)	Peak Time	Peak Dose	t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
Sr-90	Min	0.00E+00	3.00E-01	3.00E-01	6.32E-07	3.91E-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Max	8.10E+00	2.58E+01	2.58E+01	2.52E+01	2.40E+01	2.03E+01	1.24E+01	2.26E+00	1.84E-02	9.84E-10	9.84E-10
	Avg	4.05E-03	1.45E+01	1.45E+01	1.38E+01	1.27E+01	9.93E+00	5.35E+00	7.74E-01	4.46E-03	1.28E-10	1.28E-10
	Std	1.81E-01	4.28E+00	4.28E+00	4.33E+00	4.38E+00	4.15E+00	2.89E+00	5.81E-01	4.74E-03	2.16E-10	2.16E-10
äALL	Min	0.00E+00	3.00E-01	3.00E-01	6.32E-07	3.91E-19	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Max	8.10E+00	2.58E+01	2.58E+01	2.52E+01	2.40E+01	2.03E+01	1.24E+01	2.26E+00	1.84E-02	9.84E-10	9.84E-10
	Avg	4.05E-03	1.45E+01	1.45E+01	1.38E+01	1.27E+01	9.93E+00	5.35E+00	7.74E-01	4.46E-03	1.28E-10	1.28E-10
	Std	1.81E-01	4.28E+00	4.28E+00	4.33E+00	4.38E+00	4.15E+00	2.89E+00	5.81E-01	4.74E-03	2.16E-10	2.16E-10

äALL is total dose summed for all nuclides.

Peak of the mean dose (averaged over observations) at graphical times
 Repetition Time of peak mean dose Peak mean dose
 Years mrem/yr
 1 0.000E+00 1.448E+01

1 RESRAD Regression and Correlation output 11/28/03 08:50 Page: Coef 1
 Title : Yankee Rowe Sensitivity Analysis=soil
 Input File : Sr-90_DCGL.RAD

Coefficients for peak of mean dose time Dose
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	12	-0.03	21	-0.02	15	-0.02	23	-0.01
External gamma shielding factor	33	0.00	33	0.00	25	0.01	30	0.00
Well pump intake depth	24	0.01	27	0.01	32	0.00	33	0.00
Depth of soil mixing layer	10	0.03	20	0.02	18	0.02	26	0.01
Wet weight crop yield of fruit, grain and non-leafy vegetables	29	-0.01	29	0.00	16	-0.02	24	-0.01
Wet foliar interception fraction of leafy vegetables	5	-0.06	14	-0.04	5	-0.05	12	-0.03
Weathering removal constant of all vegetation	31	0.00	31	0.00	10	-0.03	18	-0.02
Mass loading for inhalation	30	0.00	30	0.00	31	0.00	32	0.00
Thickness of contaminated zone	3	0.14	1	0.59	4	0.13	1	0.52
Thickness of Unsaturated zone 1	15	-0.02	10	-0.09	13	-0.02	8	-0.07
Density of contaminated zone	23	-0.01	12	-0.05	33	0.00	31	0.00
Contaminated zone total porosity	28	-0.01	15	-0.04	27	0.01	16	0.02
Contaminated zone hydraulic conductivity	32	0.00	32	0.00	21	-0.01	28	-0.01
Density of saturated zone	18	0.02	3	0.34	26	0.01	4	0.14
Saturated zone total porosity	21	0.01	7	0.15	30	0.00	20	0.01
Saturated zone effective porosity	17	0.02	6	0.19	22	0.01	5	0.13
Saturated zone hydraulic conductivity	20	-0.01	25	-0.01	9	-0.03	17	-0.02
Density of Unsaturated zone 1	16	0.02	2	0.42	29	0.00	10	-0.06
Total Porosity of Unsaturated zone 1	11	0.03	5	0.29	28	0.00	11	0.05
Effective Porosity of Unsaturated zone 1	27	0.01	9	0.11	24	-0.01	6	-0.12
Hydraulic Conductivity of Unsaturated zone 1	19	0.02	24	0.01	14	0.02	22	0.01
Contaminated zone b parameter	14	-0.02	23	-0.01	19	-0.02	27	-0.01
Saturated zone b parameter	4	0.07	13	0.04	7	0.04	15	0.02
Well pumping rate	26	0.01	16	0.02	20	0.01	13	0.03
b Parameter of Unsaturated zone 1	13	0.02	22	0.02	12	0.02	21	0.01
Irrigation	9	-0.03	11	-0.06	8	-0.03	9	-0.07
Evapotranspiration coefficient	8	0.03	19	0.02	11	0.03	19	0.02
Kd of Sr-90 in Contaminated Zone	25	0.01	28	0.01	3	0.14	7	0.08
Kd of Sr-90 in Unsaturated Zone 1	22	-0.01	26	-0.01	17	0.02	25	0.01
Kd of Sr-90 in Saturated Zone	6	-0.03	17	-0.02	6	-0.05	14	-0.03
Meat transfer factor for Sr	2	0.21	8	0.14	2	0.38	3	0.24
Milk transfer factor for Sr	1	0.45	4	0.32	1	0.67	2	0.51
Fish transfer factor for Sr	7	0.03	18	0.02	23	-0.01	29	-0.01
R-SQUARE		0.60		0.60		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.

Probabilistic Input

Number of Sample Runs: 2000

Number	Name	Distribution	Parameters							
1	SHF3	UNIFORM	.15	.95						
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1				
3	DWIBWT	TRIANGULAR	6	10	30					
4	DM	TRIANGULAR	0	.15	.6					
5	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999				
6	RWET(2)	TRIANGULAR	.06	.67	.95					
7	WLAM	TRIANGULAR	5.1	18	84					
8	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003 .8119
.00004	.9495	.00006 .9937	.000076	.9983	.0001	1				
9	THICK0	UNIFORM	.15	3.8						
10	H(1)	UNIFORM	.01	3.65						
11	DENSCZ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
12	TPCZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
13	HCCZ	BETA	110	5870	1.398	1.842				
14	DENSAQ	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
15	TPSZ	BOUNDED NORMAL	.43	.06	.2446	.6154				
16	EPSZ	BOUNDED NORMAL	.383	.061	.195	.572				
17	HCSZ	BETA	110	5870	1.398	1.842				
18	DENSUZ(1)	BOUNDED NORMAL	1.5105	.159	1.019	2.002				
19	TPUZ(1)	BOUNDED NORMAL	.43	.06	.2446	.6154				
20	EPUZ(1)	BOUNDED NORMAL	.383	.061	.195	.572				
21	HCUZ(1)	BETA	110	5870	1.398	1.842				
22	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
23	BSZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
24	UW	UNIFORM	957	1689						
25	BUZ(1)	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9				
26	RI	UNIFORM	.252	.618						
27	EVAPTR	UNIFORM	.5	.75						
28	DCACTU1(1)	TRUNCATED LOGNORMAL-N	-.67	3.16	.001	.999				
29	DCACTS(1)	TRUNCATED LOGNORMAL-N	-.67	3.16	.001	.999				
30	BRTF(43,2)	TRUNCATED LOGNORMAL-N	-9.21	.7	.001	.999				
31	BRTF(43,3)	TRUNCATED LOGNORMAL-N	-6.91	.7	.001	.999				
32	BBIO(43,1)	LOGNORMAL-N	3	1.1						

0 Probabilistic Total Dose Summary

0Nuclide	Peak (j)	Peak Time	Peak Dose	DOSE(j,t), mrem/yr							
			t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	3.00E+01	1.00E+02	3.00E+02	1.00E+03
Tc-99	Min	0.00E+00	2.19E-01	2.19E-01	1.36E-01	5.10E-02	2.41E-03	1.32E-07	1.42E-22	0.00E+00	0.00E+00
	Max	1.68E+00	3.34E+00	3.34E+00	3.22E+00	2.99E+00	2.61E+00	2.03E+00	1.16E+00	2.48E-01	6.98E-03
	Avg	8.42E-04	1.76E+00	1.76E+00	1.71E+00	1.60E+00	1.31E+00	7.96E-01	2.00E-01	1.03E-02	3.15E-05
	Std	3.77E-02	5.21E-01	5.21E-01	5.32E-01	5.47E-01	5.54E-01	4.72E-01	2.08E-01	2.29E-02	2.93E-04
äALL	Min	0.00E+00	2.19E-01	2.19E-01	1.36E-01	5.10E-02	2.41E-03	1.32E-07	1.42E-22	0.00E+00	0.00E+00
	Max	1.68E+00	3.34E+00	3.34E+00	3.22E+00	2.99E+00	2.61E+00	2.03E+00	1.16E+00	2.48E-01	6.98E-03
	Avg	8.42E-04	1.76E+00	1.76E+00	1.71E+00	1.60E+00	1.31E+00	7.96E-01	2.00E-01	1.03E-02	3.15E-05
	Std	3.77E-02	5.21E-01	5.21E-01	5.32E-01	5.47E-01	5.54E-01	4.72E-01	2.08E-01	2.29E-02	2.93E-04

äALL is total dose summed for all nuclides.

Peak of the mean dose (averaged over observations) at graphical times
 Repetition Time of peak mean dose Peak mean dose
 Years mrem/yr
 1 0.000E+00 1.763E+00

1 RESRAD Regression and Correlation output 11/28/03 09:01 Page: Coef 1
 Title : Yankee Rowe Sensitivity Analysis=soil
 Input File : Tc-99_DCGL.RAD

Coefficients for peak of mean dose time Dose		PCC	SRC	PRCC	SRRC
Coefficient =	Repetition =	1	1	1	1
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff
Indoor dust filtration factor		17	0.02	22	0.01
External gamma shielding factor		28	0.01	28	0.00
Well pump intake depth		23	-0.01	25	-0.01
Depth of soil mixing layer		8	-0.02	18	-0.01
Wet weight crop yield of fruit, grain and non-leafy vegetables		29	0.01	29	0.00
Wet foliar interception fraction of leafy vegetables		7	0.03	17	0.02
Weathering removal constant of all vegetation		4	0.05	14	0.03
Mass loading for inhalation		30	-0.01	30	0.00
Thickness of contaminated zone		2	0.14	1	0.61
Thickness of Unsaturated zone 1		12	-0.02	9	-0.08
Density of contaminated zone		25	0.01	11	0.04
Contaminated zone total porosity		27	0.01	15	0.03
Contaminated zone hydraulic conductivity		3	0.05	13	0.03
Density of saturated zone		10	0.02	2	0.40
Saturated zone total porosity		20	0.01	7	0.15
Saturated zone effective porosity		9	0.02	5	0.25
Saturated zone hydraulic conductivity		14	0.02	21	0.01
Density of Unsaturated zone 1		19	0.01	4	0.31
Total Porosity of Unsaturated zone 1		18	0.02	6	0.17
Effective Porosity of Unsaturated zone 1		22	0.01	8	0.14
Hydraulic Conductivity of Unsaturated zone 1		26	-0.01	27	0.00
Contaminated zone b parameter		31	0.00	31	0.00
Saturated zone b parameter		16	0.02	23	0.01
Well pumping rate		15	0.02	12	0.04
b Parameter of Unsaturated zone 1		21	0.01	24	0.01
Irrigation		6	-0.03	10	-0.07
Evapotranspiration coefficient		11	0.02	19	0.01
Kd of Tc-99 in Unsaturated Zone 1		5	0.04	16	0.03
Kd of Tc-99 in Saturated Zone		24	-0.01	26	-0.01
Meat transfer factor for Tc		32	0.00	32	0.00
Milk transfer factor for Tc		1	0.48	3	0.34
Fish transfer factor for Tc		13	-0.02	20	-0.01
R-SQUARE		0.60		0.60	
				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.