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Part VI: Uncertainty Analysis

Probabilistic Input
0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004 .9495 .00006 .9937 .000076 .9983 .0001 1
14	RI	UNIFORM	.252	.618								
15	DCACTC(1)	UNIFORM	3000	10000								
16	BRTF(47,1)	UNIFORM	3.06E-6	.0000263								
17	BRTF(47,2)	TRUNCATED LOGNORMAL-N	-6.21	.7	.001	.999						
18	BRTF(47,3)	TRUNCATED LOGNORMAL-N	-5.12	.7	.001	.999						
19	BBIO(47,1)	LOGNORMAL-N	1.6	1.1								

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : Ag108m-concrete.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	16	0.01	16	0.00	12	0.01	14	0.00
External gamma shielding factor	1	1.00	1	1.00	1	1.00	1	1.00
Depth of soil mixing layer	9	0.04	12	0.00	17	0.00	18	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	8	-0.06	11	0.00	9	0.02	9	0.00
Wet foliar interception fraction of leafy vegetables	6	0.07	9	0.00	14	0.00	16	0.00
Weathering removal constant of all vegetation	4	-0.62	5	0.00	10	-0.01	12	0.00
Density of contaminated zone	13	0.01	8	0.00	6	0.03	5	0.00
Contaminated zone total porosity	15	0.01	10	0.00	5	0.04	4	0.00
Contaminated zone hydraulic conductivity	11	-0.02	14	0.00	13	0.00	15	0.00
Contaminated zone b parameter	10	-0.03	13	0.00	15	0.00	17	0.00
Evapotranspiration coefficient	18	0.00	17	0.00	18	0.00	11	0.00
Depth of roots	14	-0.01	15	0.00	8	-0.02	8	0.00
Mass loading for inhalation	19	0.00	19	0.00	19	0.00	19	0.00
Irrigation	7	0.07	6	0.00	16	0.00	10	0.00
Kd of Ag-108m in Contaminated Zone	5	-0.24	4	0.00	7	0.03	6	0.00
Plant transfer factor for Ag	12	0.01	7	0.00	4	0.04	3	0.00
Meat transfer factor for Ag	3	0.90	3	0.00	3	0.11	7	0.00
Milk transfer factor for Ag	2	1.00	2	0.01	2	0.72	2	0.01
Fish transfer factor for Ag	17	0.01	18	0.00	11	0.01	13	0.00
R-SQUARE		1.00		1.00		1.00		1.00

-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

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004 .9495 .00006 .9937 .000076 .9983 .0001 1
14	RI	UNIFORM	.252	.618								
15	DCACTC(3)	LOGUNIFORM	500	5000								
16	DCACTC(4)	LOGNORMAL-N	4.99	2.37								
17	BRTF(95,1)	LOGUNIFORM	.0000106	.00331								
18	BRTF(95,2)	TRUNCATED LOGNORMAL-N	-9.9	.2	.001	.999						
19	BRTF(93,1)	LOGUNIFORM	.0000106	.0114								
20	BRTF(90,1)	LOGUNIFORM	.0000106	.000644								
21	BRTF(92,1)	LOGNORMAL-N	-5.17	4.23								
22	DCACTC(1)	LOGUNIFORM	200	5000								
23	BRTF(93,2)	TRUNCATED LOGNORMAL-N	-6.91	.7	.001	.999						
24	BRTF(90,2)	TRUNCATED LOGNORMAL-N	-9.21	1	.001	.999						
25	BRTF(92,2)	TRUNCATED LOGNORMAL-N	-7.13	.7	.001	.999						
26	BRTF(95,3)	TRUNCATED LOGNORMAL-N	-13.12	.7	.001	.999						
27	BRTF(93,3)	TRUNCATED LOGNORMAL-N	-11.51	.7	.001	.999						
28	BRTF(90,3)	TRUNCATED LOGNORMAL-N	-12.21	.9	.001	.999						
29	BRTF(92,3)	TRUNCATED LOGNORMAL-N	-7.82	.6	.001	.999						
30	BBIO(95,1)	LOGNORMAL-N	3.4	1.1								
31	BBIO(93,1)	LOGNORMAL-N	3.4	1.1								
32	BBIO(90,1)	LOGNORMAL-N	4.6	1.1								
33	BBIO(92,1)	LOGNORMAL-N	2.3	1.1								
34	DCACTC(2)	LOGUNIFORM	100	5000								

Title : YR submerged concrete- Sensitivity analysis, Am-241
Input File : Am-241-concrete_SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	11	0.02	11	0.00	8	0.10	14	0.00
External gamma shielding factor	23	0.01	24	0.00	9	0.09	16	0.00
Depth of soil mixing layer	26	0.01	27	0.00	14	0.04	22	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	5	-0.13	7	-0.03	4	-0.56	6	-0.03
Wet foliar interception fraction of leafy vegetables	4	0.18	6	0.04	3	0.60	5	0.03
Weathering removal constant of all vegetation	3	-0.37	4	-0.08	2	-0.87	3	-0.07
Density of contaminated zone	34	0.00	30	0.00	21	-0.02	10	-0.01
Contaminated zone total porosity	30	0.00	16	0.00	25	-0.02	13	0.00
Contaminated zone hydraulic conductivity	21	0.01	22	0.00	10	-0.05	18	0.00
Contaminated zone b parameter	32	0.00	33	0.00	23	0.02	28	0.00
Evapotranspiration coefficient	10	-0.03	5	-0.04	19	-0.02	8	-0.01
Depth of roots	17	0.01	19	0.00	17	0.03	25	0.00
Mass loading for inhalation	28	0.00	31	0.00	12	0.05	20	0.00
Irrigation	7	0.06	3	0.08	7	0.15	4	0.04
Kd of Th-229 in Contaminated Zone	29	0.00	29	0.00	33	0.00	26	0.00
Kd of U-233 in Contaminated Zone	19	-0.01	20	0.00	24	0.02	12	0.00
Plant transfer factor for Am	1	0.96	1	0.83	5	0.26	2	0.07
Meat transfer factor for Am	31	0.00	32	0.00	13	0.04	21	0.00
Plant transfer factor for Np	15	0.02	14	0.00	22	0.02	11	0.00
Plant transfer factor for Th	18	0.01	17	0.00	27	-0.01	17	0.00
Plant transfer factor for U	33	0.00	34	0.00	26	0.01	15	0.00
Kd of Am-241 in Contaminated Zone	2	-0.67	2	-0.22	1	-0.96	1	-0.92
Meat transfer factor for Np	13	0.02	13	0.00	31	0.01	32	0.00
Meat transfer factor for Th	8	-0.04	9	-0.01	18	0.02	27	0.00
Meat transfer factor for U	12	0.02	12	0.00	30	0.01	31	0.00
Milk transfer factor for Am	16	-0.01	18	0.00	15	0.03	23	0.00
Milk transfer factor for Np	22	0.01	23	0.00	11	0.05	19	0.00
Milk transfer factor for Th	9	0.03	10	0.01	32	-0.01	33	0.00
Milk transfer factor for U	14	0.02	15	0.00	34	0.00	34	0.00
Fish transfer factor for Am	6	0.08	8	0.02	6	0.26	7	0.01
Fish transfer factor for Np	25	-0.01	26	0.00	28	-0.01	29	0.00
Fish transfer factor for Th	27	-0.01	28	0.00	29	-0.01	30	0.00
Fish transfer factor for U	24	0.01	25	0.00	16	0.03	24	0.00
Kd of Np-237 in Contaminated Zone	20	0.01	21	0.00	20	0.02	9	0.01
R-SQUARE		0.96		0.96		1.00		1.00

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters											
1	SHF3	UNIFORM	.15	.95										
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1								
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	DENSCZ	UNIFORM	1.41	1.67										
8	TPCZ	UNIFORM	.24	.36										
9	HCCZ	LOGUNIFORM	10000	10000000										
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9								
11	EVAPTR	UNIFORM	.5	.75										
12	DROOT	UNIFORM	.3	3.8										
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004	.9495	.00006	.9937	.000076	.9983	.0001	1
14	RI	UNIFORM	.252	.618										
15	DCACTC(1)	LOGUNIFORM	10	500										
16	BRTF(6,1)	LOGUNIFORM	.000644	.696										
17	BRTF(6,2)	TRUNCATED LOGNORMAL-N	-3.47	1	.001	.999								
18	BRTF(6,3)	TRUNCATED LOGNORMAL-N	-4.4	.9	.001	.999								
19	BBIO(6,1)	LOGNORMAL-N	10.8	1.1										
20	DMC	TRIANGULAR	.2	.3	.6									

Title : YR submerged concrete- Sensitivity analysis, C-14
Input File : C-14-concrete_SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	8	0.04	11	0.02	14	0.02	14	0.01
External gamma shielding factor	15	-0.02	17	-0.01	13	-0.03	13	-0.01
Depth of soil mixing layer	20	0.00	20	0.00	18	0.00	19	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	9	0.03	13	0.02	12	0.03	12	0.01
Wet foliar interception fraction of leafy vegetables	13	-0.02	15	-0.01	7	-0.05	8	-0.02
Weathering removal constant of all vegetation	18	0.01	19	0.00	20	0.00	20	0.00
Density of contaminated zone	11	0.03	4	0.10	4	0.12	4	0.34
Contaminated zone total porosity	12	-0.03	6	-0.09	19	0.00	18	0.00
Contaminated zone hydraulic conductivity	7	-0.04	10	-0.02	11	-0.04	11	-0.01
Contaminated zone b parameter	10	-0.03	14	-0.02	15	-0.01	15	0.00
Evapotranspiration coefficient	17	-0.01	8	-0.02	5	0.05	5	0.15
Depth of roots	5	0.05	7	0.03	16	-0.01	16	0.00
Mass loading for inhalation	6	-0.04	9	-0.02	8	-0.04	9	-0.02
Irrigation	19	0.00	12	0.02	6	-0.05	6	-0.15
Kd of C-14 in Contaminated Zone	4	-0.15	5	-0.10	3	-0.14	2	-0.37
Plant transfer factor for C	3	0.47	2	0.33	10	0.04	7	0.10
Meat transfer factor for C	16	0.01	18	0.01	9	-0.04	10	-0.02
Milk transfer factor for C	14	0.02	16	0.01	17	0.01	17	0.00
Fish transfer factor for C	1	0.78	1	0.66	2	0.67	3	0.36
Thickness of evasion layer of C-14 in soil	2	0.48	3	0.29	1	0.84	1	0.61
R-SQUARE		0.72		0.72		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

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004 .9495 .00006 .9937 .000076 .9983 .0001 1
14	RI	UNIFORM	.252	.618								
15	BRTF(95,1)	LOGUNIFORM	.0000106	.00331								
16	BRTF(95,2)	TRUNCATED LOGNORMAL-N	-9.9	.2	.001	.999						
17	BRTF(92,1)	LOGNORMAL-N	-5.17	4.23								
18	BRTF(92,2)	TRUNCATED LOGNORMAL-N	-7.13	.7	.001	.999						
19	BRTF(95,3)	TRUNCATED LOGNORMAL-N	-13.12	.7	.001	.999						
20	BRTF(92,3)	TRUNCATED LOGNORMAL-N	-7.82	.6	.001	.999						
21	BBIO(95,1)	LOGNORMAL-N	3.4	1.1								
22	BBIO(92,1)	LOGNORMAL-N	2.3	1.1								
23	DCACTC(4)	UNIFORM	200	1000								
24	DCACTC(1)	LOGUNIFORM	200	5000								
25	DCACTC(2)	LOGUNIFORM	200	5000								
26	DCACTC(5)	LOGUNIFORM	100	1000								
27	DCACTC(6)	LOGUNIFORM	500	5000								
28	DCACTC(7)	LOGNORMAL-N	4.99	2.37								
29	BRTF(89,1)	LOGUNIFORM	.0000106	.00331								
30	BRTF(89,2)	TRUNCATED LOGNORMAL-N	-10.82	1	.001	.999						
31	BRTF(89,3)	TRUNCATED LOGNORMAL-N	-13.2	.9	.001	.999						
32	BBIO(89,1)	LOGNORMAL-N	2.7	1.1								
33	BRTF(96,1)	UNIFORM	.000187	.00331								
34	BRTF(96,2)	TRUNCATED LOGNORMAL-N	-10.82	1	.001	.999						
35	BRTF(96,3)	TRUNCATED LOGNORMAL-N	-13.12	.9	.001	.999						
36	BBIO(96,1)	LOGNORMAL-N	3.4	1.1								
37	BRTF(91,1)	LOGUNIFORM	.000187	.0114								
38	BRTF(91,2)	TRUNCATED LOGNORMAL-N	-12.21	1	.001	.999						
39	BRTF(91,3)	TRUNCATED LOGNORMAL-N	-12.21	.9	.001	.999						
40	BBIO(91,1)	LOGNORMAL-N	2.3	1.1								
41	BRTF(94,1)	LOGUNIFORM	.0000106	.000644								
42	BRTF(94,2)	TRUNCATED LOGNORMAL-N	-9.21	.2	.001	.999						
43	BRTF(94,3)	TRUNCATED LOGNORMAL-N	-13.82	.5	.001	.999						
44	BBIO(94,1)	LOGNORMAL-N	3.4	1.1								

Title : YR submerged concrete- Sensitivity analysis, Cm-243
Input File : Cm-243-concrete_SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	18	-0.03	23	-0.01	34	0.01	38	0.00
External gamma shielding factor	9	0.07	11	0.03	5	0.40	7	0.04
Depth of soil mixing layer	43	0.00	43	0.00	12	-0.04	21	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	4	-0.11	7	-0.04	4	-0.48	6	-0.05
Wet foliar interception fraction of leafy vegetables	3	0.15	5	0.05	3	0.53	5	0.06
Weathering removal constant of all vegetation	1	-0.37	3	-0.14	1	-0.81	3	-0.13
Density of contaminated zone	34	0.01	12	0.02	37	0.00	24	0.00
Contaminated zone total porosity	38	0.01	13	0.02	40	0.00	27	0.00
Contaminated zone hydraulic conductivity	40	0.00	40	0.00	29	-0.01	34	0.00
Contaminated zone b parameter	15	-0.03	19	-0.01	11	-0.04	20	0.00
Evapotranspiration coefficient	25	-0.02	6	-0.04	25	-0.02	16	-0.01
Depth of roots	23	-0.02	29	-0.01	44	0.00	44	0.00
Mass loading for inhalation	8	0.07	10	0.03	39	0.00	41	0.00
Irrigation	10	0.05	4	0.11	8	0.12	4	0.08
Plant transfer factor for Am	24	-0.02	26	-0.01	21	-0.02	14	-0.01
Meat transfer factor for Am	35	0.01	36	0.00	22	-0.02	28	0.00
Plant transfer factor for U	33	-0.01	35	0.00	19	0.02	12	0.02
Meat transfer factor for U	28	-0.02	31	-0.01	38	0.00	40	0.00
Milk transfer factor for Am	14	-0.03	18	-0.01	33	0.01	37	0.00
Milk transfer factor for U	32	0.01	34	0.00	15	-0.03	25	0.00
Fish transfer factor for Am	17	-0.03	22	-0.01	32	-0.01	36	0.00
Fish transfer factor for U	30	0.01	32	0.00	27	-0.01	32	0.00
Kd of Cm-243 in Contaminated Zone	2	-0.29	1	-0.72	2	-0.76	1	-0.76
Kd of Ac-227 in Contaminated Zone	20	-0.02	21	-0.01	16	-0.03	10	-0.02
Kd of Am-243 in Contaminated Zone	26	-0.02	27	-0.01	17	-0.02	11	-0.02
Kd of Pa-231 in Contaminated Zone	29	-0.02	25	-0.01	23	-0.02	15	-0.01
Kd of Pu-239 in Contaminated Zone	22	0.02	20	0.01	36	-0.01	23	0.00
Kd of U-235 in Contaminated Zone	27	0.02	30	0.01	20	0.02	13	0.01
Plant transfer factor for Ac	13	-0.04	14	-0.02	14	-0.03	9	-0.02
Meat transfer factor for Ac	39	0.01	39	0.00	9	-0.06	18	-0.01
Milk transfer factor for Ac	11	-0.04	16	-0.01	31	0.01	35	0.00
Fish transfer factor for Ac	12	-0.04	17	-0.01	13	-0.04	22	0.00
Plant transfer factor for Cm	7	0.08	2	0.20	6	0.32	2	0.22
Meat transfer factor for Cm	21	0.02	28	0.01	42	0.00	42	0.00
Milk transfer factor for Cm	37	0.01	38	0.00	18	0.02	26	0.00
Fish transfer factor for Cm	5	0.10	8	0.04	7	0.22	8	0.02
Plant transfer factor for Pa	16	-0.03	15	-0.02	30	-0.01	17	-0.01
Meat transfer factor for Pa	44	0.00	44	0.00	26	0.02	31	0.00
Milk transfer factor for Pa	41	0.00	41	0.00	35	-0.01	39	0.00
Fish transfer factor for Pa	19	-0.02	24	-0.01	28	-0.01	33	0.00
Plant transfer factor for Pu	42	0.00	42	0.00	41	0.00	29	0.00
Meat transfer factor for Pu	31	0.01	33	0.00	10	-0.05	19	0.00
Milk transfer factor for Pu	36	0.01	37	0.00	43	0.00	43	0.00
Fish transfer factor for Pu	6	0.08	9	0.03	24	-0.02	30	0.00
R-SQUARE		0.88		0.88		0.99		0.99

-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

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Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004	.9495	.00006	.9937	.000076	.9983	.0001	1
14	RI	UNIFORM	.252	.618								
15	DCACTC(1)	UNIFORM	181	383								
16	BRTF(27,1)	UNIFORM	.00104	.00395								
17	BRTF(27,2)	TRUNCATED LOGNORMAL-N	-3.51	1	.001	.999						
18	BRTF(27,3)	TRUNCATED LOGNORMAL-N	-6.21	.7	.001	.999						
19	BBIO(27,1)	LOGNORMAL-N	5.7	1.1								

Title : YR submerged concrete- Sensitivity analysis, Co-60
Input File : Co-60-concrete_SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	14	-0.01	16	0.00	16	0.01	17	0.00
External gamma shielding factor	1	1.00	1	1.00	1	1.00	1	1.00
Depth of soil mixing layer	11	0.05	11	0.00	9	-0.02	12	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	9	-0.07	10	0.00	10	0.02	13	0.00
Wet foliar interception fraction of leafy vegetables	8	0.07	9	0.00	19	0.00	19	0.00
Weathering removal constant of all vegetation	4	-0.63	5	-0.01	4	-0.16	6	-0.01
Density of contaminated zone	19	0.00	17	0.00	14	0.01	10	0.00
Contaminated zone total porosity	16	0.00	13	0.00	18	0.01	11	0.00
Contaminated zone hydraulic conductivity	18	0.00	19	0.00	15	0.01	16	0.00
Contaminated zone b parameter	17	0.00	18	0.00	11	-0.01	14	0.00
Evapotranspiration coefficient	15	0.00	12	0.00	8	-0.02	7	-0.01
Depth of roots	13	0.01	15	0.00	17	-0.01	18	0.00
Mass loading for inhalation	12	-0.02	14	0.00	13	-0.01	15	0.00
Irrigation	7	0.07	7	0.00	7	0.03	4	0.01
Kd of Co-60 in Contaminated Zone	6	-0.18	3	-0.01	6	-0.06	3	-0.02
Plant transfer factor for Co	10	0.06	8	0.00	12	-0.01	8	-0.01
Meat transfer factor for Co	2	0.98	2	0.05	2	0.66	2	0.05
Milk transfer factor for Co	3	0.69	4	0.01	3	0.16	5	0.01
Fish transfer factor for Co	5	0.49	6	0.01	5	0.09	9	0.01
R-SQUARE		1.00		1.00		1.00		1.00

-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

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004 .9495 .00006 .9937 .000076 .9983 .0001 1
14	RI	UNIFORM	.252	.618								
15	DCACTC(1)	UNIFORM	34	240								
16	BRTF(55,1)	UNIFORM	.00239	.0783								
17	BRTF(55,2)	TRUNCATED LOGNORMAL-N	-3	.4	.001	.999						
18	BRTF(55,3)	TRUNCATED LOGNORMAL-N	-4.61	.5	.001	.999						
19	BBIO(55,1)	LOGNORMAL-N	7.6	.7								

Title : YR submerged concrete- Sensitivity analysis, Cs-134
Input File : Cs-134-concrete_SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	19	0.00	19	0.00	10	-0.03	13	-0.01
External gamma shielding factor	1	0.91	1	0.57	1	0.88	1	0.55
Depth of soil mixing layer	8	0.05	12	0.01	9	-0.03	12	-0.01
Wet weight crop yield of fruit, grain and non-leafy vegetables	12	0.02	15	0.00	16	0.01	16	0.00
Wet foliar interception fraction of leafy vegetables	11	0.03	14	0.01	8	0.04	11	0.01
Weathering removal constant of all vegetation	4	-0.36	6	-0.10	4	-0.29	6	-0.09
Density of contaminated zone	14	0.01	9	0.03	13	-0.02	9	-0.04
Contaminated zone total porosity	15	0.01	10	0.02	14	-0.02	10	-0.03
Contaminated zone hydraulic conductivity	13	-0.02	16	0.00	15	-0.01	15	0.00
Contaminated zone b parameter	10	-0.03	13	-0.01	17	0.00	18	0.00
Evapotranspiration coefficient	17	-0.01	11	-0.02	19	0.00	17	0.00
Depth of roots	18	0.01	18	0.00	11	-0.03	14	-0.01
Mass loading for inhalation	16	-0.01	17	0.00	18	0.00	19	0.00
Irrigation	9	0.05	8	0.08	12	0.03	8	0.05
Kd of Cs-134 in Contaminated Zone	7	-0.19	3	-0.34	7	-0.17	3	-0.34
Plant transfer factor for Cs	6	0.20	2	0.37	6	0.19	2	0.39
Meat transfer factor for Cs	3	0.49	5	0.15	3	0.42	5	0.13
Milk transfer factor for Cs	2	0.71	4	0.27	2	0.61	4	0.23
Fish transfer factor for Cs	5	0.33	7	0.09	5	0.23	7	0.07
R-SQUARE		0.93		0.93		0.91		0.91

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters										
1	SHF3	UNIFORM	.15	.95									
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1							
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	DENSCZ	UNIFORM	1.41	1.67									
8	TPCZ	UNIFORM	.24	.36									
9	HCCZ	LOGUNIFORM	10000	10000000									
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9							
11	EVAPTR	UNIFORM	.5	.75									
12	DROOT	UNIFORM	.3	3.8									
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004	.9495	.00006	.9937	.000076	.9983	.0001	1
14	RI	UNIFORM	.252	.618									
15	DCACTC(1)	UNIFORM	34	240									
16	BRTF(55,1)	UNIFORM	.00239	.0783									
17	BRTF(55,2)	TRUNCATED LOGNORMAL-N	-3	.4	.001	.999							
18	BRTF(55,3)	TRUNCATED LOGNORMAL-N	-4.61	.5	.001	.999							
19	BBIO(55,1)	LOGNORMAL-N	7.6	.7									

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : Cs137-concrete-SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	19	0.00	19	0.00	10	-0.04	13	-0.01
External gamma shielding factor	1	0.75	3	0.34	1	0.81	3	0.35
Depth of soil mixing layer	8	0.05	12	0.02	9	-0.04	12	-0.01
Wet weight crop yield of fruit, grain and non-leafy vegetables	12	0.02	15	0.01	19	0.00	19	0.00
Wet foliar interception fraction of leafy vegetables	11	0.03	14	0.01	8	0.05	11	0.01
Weathering removal constant of all vegetation	4	-0.36	6	-0.12	4	-0.37	6	-0.10
Density of contaminated zone	14	0.01	9	0.03	13	-0.03	9	-0.04
Contaminated zone total porosity	15	0.01	10	0.03	14	-0.02	10	-0.04
Contaminated zone hydraulic conductivity	13	-0.02	16	-0.01	15	-0.01	16	0.00
Contaminated zone b parameter	10	-0.03	13	-0.01	18	0.00	18	0.00
Evapotranspiration coefficient	17	-0.01	11	-0.02	17	0.00	14	0.01
Depth of roots	18	0.01	18	0.00	12	-0.03	15	-0.01
Mass loading for inhalation	16	-0.01	17	0.00	16	0.00	17	0.00
Irrigation	9	0.05	8	0.09	11	0.03	8	0.06
Kd of Cs-137 in Contaminated Zone	7	-0.19	2	-0.39	7	-0.20	2	-0.36
Plant transfer factor for Cs	6	0.20	1	0.42	6	0.28	1	0.49
Meat transfer factor for Cs	3	0.49	5	0.17	3	0.53	5	0.16
Milk transfer factor for Cs	2	0.71	4	0.30	2	0.72	4	0.26
Fish transfer factor for Cs	5	0.33	7	0.11	5	0.30	7	0.08
R-SQUARE		0.91		0.91		0.94		0.94

-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

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004 .9495 .00006 .9937 .000076 .9983 .0001 1
14	RI	UNIFORM	.252	.618								
15	DCACTC(2)	LOGUNIFORM	200	5000								
16	BRTF(63,1)	LOGUNIFORM	.0000106	.00331								
17	BRTF(63,2)	TRUNCATED LOGNORMAL-N	-6.21	1	.001	.999						
18	BRTF(63,3)	TRUNCATED LOGNORMAL-N	-9.72	.9	.001	.999						
19	BBIO(63,1)	LOGNORMAL-N	3.9	1.1								
20	DCACTC(3)	LOGUNIFORM	200	5000								
21	BRTF(64,1)	LOGUNIFORM	.0000106	.00331								
22	BRTF(64,2)	TRUNCATED LOGNORMAL-N	-6.21	1	.001	.999						
23	BRTF(64,3)	TRUNCATED LOGNORMAL-N	-9.72	.9	.001	.999						
24	BBIO(64,1)	LOGNORMAL-N	3.2	1.1								

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : Eu152-concrete-SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	15	0.03	17	0.00	16	0.01	20	0.00
External gamma shielding factor	1	1.00	1	1.00	1	1.00	1	1.00
Depth of soil mixing layer	23	0.01	23	0.00	10	-0.03	12	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	7	-0.11	10	0.00	12	-0.03	14	0.00
Wet foliar interception fraction of leafy vegetables	6	0.18	9	0.00	5	0.07	7	0.00
Weathering removal constant of all vegetation	5	-0.38	5	0.00	4	-0.08	6	0.00
Density of contaminated zone	14	0.04	8	0.00	21	0.00	18	0.00
Contaminated zone total porosity	13	0.04	7	0.00	22	0.00	19	0.00
Contaminated zone hydraulic conductivity	22	0.01	22	0.00	18	-0.01	22	0.00
Contaminated zone b parameter	18	-0.02	19	0.00	13	-0.03	15	0.00
Evapotranspiration coefficient	21	-0.01	14	0.00	8	0.04	3	0.00
Depth of roots	20	0.01	21	0.00	15	-0.02	17	0.00
Mass loading for inhalation	10	0.04	15	0.00	24	0.00	24	0.00
Irrigation	12	0.04	6	0.00	9	-0.03	4	0.00
Kd of Eu-152 in Contaminated Zone	4	-0.64	3	0.00	2	-0.18	2	-0.01
Plant transfer factor for Eu	2	0.95	2	0.01	23	0.00	23	0.00
Meat transfer factor for Eu	3	0.68	4	0.00	3	0.17	5	0.00
Milk transfer factor for Eu	9	0.10	12	0.00	17	0.01	21	0.00
Fish transfer factor for Eu	8	0.11	11	0.00	11	0.03	13	0.00
Kd of Gd-152 in Contaminated Zone	17	0.02	16	0.00	19	0.01	9	0.00
Plant transfer factor for Gd	11	0.04	13	0.00	20	0.01	10	0.00
Meat transfer factor for Gd	16	-0.02	18	0.00	14	0.02	16	0.00
Milk transfer factor for Gd	19	-0.01	20	0.00	7	0.04	11	0.00
Fish transfer factor for Gd	24	0.00	24	0.00	6	-0.05	8	0.00
R-SQUARE		1.00		1.00		1.00		1.00

-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

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004 .9495 .00006 .9937 .000076 .9983 .0001 1
14	RI	UNIFORM	.252	.618								
15	DCACTC(1)	LOGUNIFORM	200	5000								
16	BRTF(63,1)	LOGUNIFORM	.0000106	.00331								
17	BRTF(63,2)	TRUNCATED LOGNORMAL-N	-6.21	1	.001	.999						
18	BRTF(63,3)	TRUNCATED LOGNORMAL-N	-9.72	.9	.001	.999						
19	BBIO(63,1)	LOGNORMAL-N	3.9	1.1								

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : Eu154-concrete-SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	15	-0.01	17	0.00	12	0.02	16	0.00
External gamma shielding factor	1	1.00	1	1.00	1	1.00	1	1.00
Depth of soil mixing layer	17	0.00	19	0.00	19	0.00	19	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	8	-0.12	9	0.00	6	0.04	11	0.00
Wet foliar interception fraction of leafy vegetables	7	0.12	8	0.00	5	0.05	10	0.00
Weathering removal constant of all vegetation	5	-0.39	5	0.00	4	-0.13	5	0.00
Density of contaminated zone	18	0.00	13	0.00	15	-0.01	8	0.00
Contaminated zone total porosity	19	0.00	15	0.00	14	-0.02	7	0.00
Contaminated zone hydraulic conductivity	13	-0.01	16	0.00	17	0.01	17	0.00
Contaminated zone b parameter	12	0.02	14	0.00	10	0.02	15	0.00
Evapotranspiration coefficient	14	0.01	11	0.00	16	-0.01	9	0.00
Depth of roots	10	-0.04	12	0.00	18	0.00	18	0.00
Mass loading for inhalation	16	0.00	18	0.00	9	-0.02	14	0.00
Irrigation	11	0.02	7	0.00	11	0.02	4	0.00
Kd of Eu-154 in Contaminated Zone	4	-0.65	3	0.00	3	-0.17	2	-0.01
Plant transfer factor for Eu	2	0.96	2	0.01	13	0.02	6	0.00
Meat transfer factor for Eu	3	0.69	4	0.00	2	0.22	3	0.00
Milk transfer factor for Eu	9	0.06	10	0.00	8	0.03	13	0.00
Fish transfer factor for Eu	6	0.16	6	0.00	7	0.03	12	0.00
R-SQUARE		1.00		1.00		1.00		1.00

-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

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004	.9495	.00006	.9937	.000076	.9983	.0001	1
14	RI	UNIFORM	.252	.618								
15	DCACTC(1)	LOGUNIFORM	200	5000								
16	BRTF(63,1)	LOGUNIFORM	.0000106	.00331								
17	BRTF(63,2)	TRUNCATED LOGNORMAL-N	-6.21	1	.001	.999						
18	BRTF(63,3)	TRUNCATED LOGNORMAL-N	-9.72	.9	.001	.999						
19	BBIO(63,1)	LOGNORMAL-N	3.9	1.1								

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : Eu155-concrete-SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	14	-0.01	17	0.00	14	0.01	14	0.00
External gamma shielding factor	1	1.00	1	1.00	1	1.00	1	1.00
Depth of soil mixing layer	18	0.00	19	0.00	18	0.00	18	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	8	-0.12	9	0.00	12	0.02	13	0.00
Wet foliar interception fraction of leafy vegetables	7	0.12	8	0.00	5	0.06	9	0.00
Weathering removal constant of all vegetation	5	-0.38	5	-0.01	4	-0.15	4	-0.01
Density of contaminated zone	17	0.00	13	0.00	11	-0.02	7	-0.01
Contaminated zone total porosity	19	0.00	15	0.00	8	-0.02	5	-0.01
Contaminated zone hydraulic conductivity	13	-0.01	16	0.00	19	0.00	19	0.00
Contaminated zone b parameter	12	0.02	14	0.00	15	0.01	15	0.00
Evapotranspiration coefficient	15	0.01	11	0.00	17	0.00	16	0.00
Depth of roots	10	-0.04	12	0.00	16	-0.01	17	0.00
Mass loading for inhalation	16	0.00	18	0.00	6	-0.03	10	0.00
Irrigation	11	0.02	7	0.00	13	0.01	8	0.00
Kd of Eu-155 in Contaminated Zone	4	-0.66	3	-0.01	3	-0.19	2	-0.07
Plant transfer factor for Eu	2	0.96	2	0.06	9	0.02	6	0.01
Meat transfer factor for Eu	3	0.69	4	0.01	2	0.23	3	0.01
Milk transfer factor for Eu	9	0.06	10	0.00	10	0.02	12	0.00
Fish transfer factor for Eu	6	0.16	6	0.00	7	0.03	11	0.00
R-SQUARE		1.00		1.00		1.00		1.00

-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

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004	.9495	.00006	.9937	.000076	.9983	.0001	1
14	RI	UNIFORM	.252	.618								
15	DCACTC(1)	UNIFORM	7	18								
16	BRTF(26,1)	UNIFORM	.244	1.32								
17	BRTF(26,2)	TRUNCATED LOGNORMAL-N	-3.51	.4	.001	.999						
18	BRTF(26,3)	TRUNCATED LOGNORMAL-N	-8.11	.7	.001	.999						
19	BBIO(26,1)	LOGNORMAL-N	5.3	1.1								

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : Fe55-concrete-SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	16	0.00	18	0.00	10	-0.04	12	-0.01
External gamma shielding factor	12	0.01	14	0.00	14	-0.02	17	0.00
Depth of soil mixing layer	10	0.05	10	0.01	11	-0.04	14	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	8	-0.07	9	-0.01	7	-0.11	8	-0.01
Wet foliar interception fraction of leafy vegetables	7	0.12	8	0.02	8	0.11	9	0.01
Weathering removal constant of all vegetation	3	-0.55	4	-0.09	3	-0.54	4	-0.08
Density of contaminated zone	17	0.00	13	0.00	18	-0.01	11	-0.01
Contaminated zone total porosity	15	-0.01	11	-0.01	17	-0.01	10	-0.01
Contaminated zone hydraulic conductivity	14	-0.01	16	0.00	13	0.03	16	0.00
Contaminated zone b parameter	13	0.01	15	0.00	12	0.03	15	0.00
Evapotranspiration coefficient	19	0.00	17	0.00	19	0.01	13	0.01
Depth of roots	18	0.00	19	0.00	15	-0.02	18	0.00
Mass loading for inhalation	11	-0.02	12	0.00	16	-0.01	19	0.00
Irrigation	9	0.06	6	0.06	9	0.06	5	0.05
Kd of Fe-55 in Contaminated Zone	6	-0.24	3	-0.24	6	-0.24	3	-0.21
Plant transfer factor for Fe	2	0.60	1	0.71	2	0.66	1	0.75
Meat transfer factor for Fe	1	0.91	2	0.30	1	0.89	2	0.25
Milk transfer factor for Fe	5	0.33	7	0.05	5	0.30	7	0.04
Fish transfer factor for Fe	4	0.41	5	0.06	4	0.31	6	0.04
R-SQUARE		0.98		0.98		0.98		0.98

-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

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number 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	UNIFORM	1.41	1.67								
13	TPCZ	UNIFORM	.24	.36								
14	HCCZ	LOGUNIFORM	10000	10000000								
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	DCACTU1(1)	TRUNCATED LOGNORMAL-N	-2.81	.5	.001	.999						
30	DCACTS(1)	TRUNCATED LOGNORMAL-N	-2.81	.5	.001	.999						
31	BRTF(1,1)	TRUNCATED LOGNORMAL-N	1.57	1.1	.001	.999						
32	BRTF(1,2)	TRUNCATED LOGNORMAL-N	-4.42	1	.001	.999						
33	BRTF(1,3)	TRUNCATED LOGNORMAL-N	-4.6	.9	.001	.999						
34	BBIO(1,1)	LOGNORMAL-N	0	.1								

Title : Yankee Rowe Sensitivity Analysis=concrete grading
Input File : H-3_graded concrete.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	18	0.02	22	0.00	14	0.03	19	0.00
External gamma shielding factor	31	0.00	32	0.00	17	0.02	24	0.00
Well pump intake depth	5	-0.11	12	-0.02	5	-0.12	8	-0.02
Depth of soil mixing layer	29	0.00	30	0.00	22	-0.02	29	0.00
Depth of roots	1	-0.66	3	-0.16	1	-0.73	2	-0.17
Wet weight crop yield of fruit, grain and non-leafy vegetables	20	-0.02	24	0.00	21	-0.02	28	0.00
Wet foliar interception fraction of leafy vegetables	13	-0.03	20	-0.01	25	-0.01	32	0.00
Weathering removal constant of all vegetation	26	-0.01	28	0.00	27	-0.01	34	0.00
Mass loading for inhalation	33	0.00	33	0.00	20	-0.02	27	0.00
Thickness of contaminated zone	2	0.60	1	0.93	2	0.66	1	0.92
Thickness of Unsaturated zone 1	16	-0.02	11	-0.03	10	-0.04	5	-0.04
Density of contaminated zone	9	0.06	7	0.07	7	0.06	4	0.07
Contaminated zone total porosity	27	0.00	18	0.01	31	0.00	22	0.00
Contaminated zone hydraulic conductivity	34	0.00	34	0.00	19	-0.02	26	0.00
Density of saturated zone	25	0.01	8	0.04	33	0.00	16	0.01
Saturated zone total porosity	32	0.00	19	0.01	32	0.00	13	-0.01
Saturated zone effective porosity	22	0.01	9	0.04	29	0.01	10	0.02
Saturated zone hydraulic conductivity	3	-0.18	10	-0.03	3	-0.19	6	-0.03
Density of Unsaturated zone 1	12	-0.03	2	-0.19	34	0.00	21	0.00
Total Porosity of Unsaturated zone 1	17	-0.02	6	-0.08	30	0.01	11	0.02
Effective Porosity of Unsaturated zone 1	11	-0.04	4	-0.12	28	-0.01	7	-0.02
Hydraulic Conductivity of Unsaturated zone 1	8	0.07	16	0.01	8	0.06	14	0.01
Contaminated zone b parameter	21	-0.01	25	0.00	23	0.01	30	0.00
Saturated zone b parameter	28	0.00	29	0.00	24	-0.01	31	0.00
Well pumping rate	14	-0.03	13	-0.02	13	-0.03	9	-0.02
b Parameter of Unsaturated zone 1	15	-0.03	21	-0.01	12	-0.03	18	-0.01
Irrigation	4	-0.15	5	-0.10	4	-0.17	3	-0.09
Evapotranspiration coefficient	6	-0.09	14	-0.02	6	-0.09	12	-0.01
Kd of H-3 in Unsaturated Zone 1	7	-0.07	15	-0.01	9	-0.05	15	-0.01
Kd of H-3 in Saturated Zone	23	0.01	26	0.00	18	0.02	25	0.00
Plant transfer factor for H	19	0.02	23	0.00	11	-0.04	17	-0.01
Meat transfer factor for H	30	0.00	31	0.00	16	-0.02	23	0.00
Milk transfer factor for H	24	0.01	27	0.00	26	-0.01	33	0.00
Fish transfer factor for H	10	0.05	17	0.01	15	0.03	20	0.00
R-SQUARE		0.97		0.97		0.97		0.97

-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

Probabilistic results summary : YR concrete-H3-cellar area-SA
File : H3-concrete-cellar-area-SA.RAD

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters											
1	SHF3	UNIFORM	.15	.95										
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1								
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	DENSCZ	UNIFORM	1.41	1.67										
8	TPCZ	UNIFORM	.24	.36										
9	HCCZ	LOGUNIFORM	10000	10000000										
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9								
11	EVAPTR	UNIFORM	.5	.75										
12	DROOT	UNIFORM	.3	3.8										
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004	.9495	.00006	.9937	.000076	.9983	.0001	1
14	RI	UNIFORM	.252	.618										
15	BRTF(1,1)	TRUNCATED LOGNORMAL-N	1.57	1.1	.001	.999								
16	BRTF(1,2)	TRUNCATED LOGNORMAL-N	-4.42	1	.001	.999								
17	BRTF(1,3)	TRUNCATED LOGNORMAL-N	-4.6	.9	.001	.999								
18	BBIO(1,1)	LOGNORMAL-N	0	.1										

Title : YR concrete-H3-cellar area-SA
Input File : H3-concrete-cellar-area-SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	7	0.03	7	0.00	5	0.02	7	0.00
External gamma shielding factor	13	0.01	14	0.00	14	-0.01	15	0.00
Depth of soil mixing layer	5	0.04	5	0.00	12	0.01	13	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	14	-0.01	15	0.00	9	-0.02	11	0.00
Wet foliar interception fraction of leafy vegetables	11	-0.02	11	0.00	6	0.02	8	0.00
Weathering removal constant of all vegetation	9	-0.02	9	0.00	3	0.04	4	0.01
Density of contaminated zone	2	0.71	2	0.65	2	0.52	2	0.63
Contaminated zone total porosity	17	0.00	13	0.00	15	0.00	5	-0.01
Contaminated zone hydraulic conductivity	18	0.00	18	0.00	8	0.02	10	0.00
Contaminated zone b parameter	10	0.02	10	0.00	16	0.00	16	0.00
Evapotranspiration coefficient	3	-0.05	3	-0.03	10	-0.02	3	-0.02
Depth of roots	12	0.02	12	0.00	18	0.00	18	0.00
Mass loading for inhalation	16	0.00	17	0.00	11	-0.01	12	0.00
Irrigation	1	-0.75	1	-0.73	1	-0.58	1	-0.74
Plant transfer factor for H	4	-0.05	4	0.00	13	-0.01	14	0.00
Meat transfer factor for H	6	0.03	6	0.00	4	-0.03	6	0.00
Milk transfer factor for H	8	-0.03	8	0.00	7	0.02	9	0.00
Fish transfer factor for H	15	0.00	16	0.00	17	0.00	17	0.00
R-SQUARE		0.99		0.99		0.98		0.98

-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

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters										
1	SHF3	UNIFORM	.15	.95									
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1							
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	DENSCZ	UNIFORM	1.41	1.67									
8	TPCZ	UNIFORM	.24	.36									
9	HCCZ	LOGUNIFORM	10000	10000000									
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9							
11	EVAPTR	UNIFORM	.5	.75									
12	DROOT	UNIFORM	.3	3.8									
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004	.9495	.00006	.9937	.000076	.9983	.0001	1
14	RI	UNIFORM	.252	.618									
15	DCACTC(1)	LOGUNIFORM	100	1000									
16	BRTF(41,1)	LOGUNIFORM	.000187	.0114									
17	BRTF(41,2)	TRUNCATED LOGNORMAL-N	-13.82	.9	.001	.999							
18	BRTF(41,3)	TRUNCATED LOGNORMAL-N	-13.12	.7	.001	.999							
19	BBIO(41,1)	LOGNORMAL-N	5.7	1.1									

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : Nb94-concrete-SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	13	-0.02	16	0.00	13	0.01	15	0.00
External gamma shielding factor	1	1.00	1	1.00	1	1.00	1	1.00
Depth of soil mixing layer	19	0.00	19	0.00	18	0.00	18	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	7	-0.13	8	0.00	12	0.01	14	0.00
Wet foliar interception fraction of leafy vegetables	6	0.17	6	0.00	5	0.06	9	0.00
Weathering removal constant of all vegetation	5	-0.40	5	0.00	4	-0.15	5	0.00
Density of contaminated zone	15	0.01	10	0.00	10	-0.02	7	0.00
Contaminated zone total porosity	17	0.00	14	0.00	9	-0.02	6	0.00
Contaminated zone hydraulic conductivity	11	-0.02	13	0.00	19	0.00	19	0.00
Contaminated zone b parameter	16	0.00	17	0.00	7	0.02	10	0.00
Evapotranspiration coefficient	14	0.01	9	0.00	14	0.01	8	0.00
Depth of roots	9	-0.03	12	0.00	16	0.00	17	0.00
Mass loading for inhalation	18	0.00	18	0.00	8	-0.02	11	0.00
Irrigation	10	0.03	7	0.00	17	0.00	12	0.00
Kd of Nb-94 in Contaminated Zone	4	-0.59	3	0.00	3	-0.17	2	-0.01
Plant transfer factor for Nb	2	0.93	2	0.01	6	0.04	3	0.00
Meat transfer factor for Nb	12	-0.02	15	0.00	15	-0.01	16	0.00
Milk transfer factor for Nb	8	-0.03	11	0.00	11	-0.01	13	0.00
Fish transfer factor for Nb	3	0.72	4	0.00	2	0.20	4	0.00
R-SQUARE		1.00		1.00		1.00		1.00

-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

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004 .9495 .00006 .9937 .000076 .9983 .0001 1
14	RI	UNIFORM	.252	.618								
15	DCACTC(1)	UNIFORM	10	61								
16	BRTF(28,1)	UNIFORM	.0276	.696								
17	BRTF(28,2)	TRUNCATED LOGNORMAL-N	-5.3	.9	.001	.999						
18	BRTF(28,3)	TRUNCATED LOGNORMAL-N	-3.91	.7	.001	.999						
19	BBIO(28,1)	LOGNORMAL-N	4.6	1.1								

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : Ni63-concrete-SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	19	0.00	19	0.00	16	-0.01	17	0.00
External gamma shielding factor	6	0.03	10	0.01	15	-0.01	16	0.00
Depth of soil mixing layer	7	0.03	11	0.01	7	-0.04	10	-0.01
Wet weight crop yield of fruit, grain and non-leafy vegetables	14	0.01	15	0.00	12	-0.02	13	-0.01
Wet foliar interception fraction of leafy vegetables	18	0.00	18	0.00	9	0.03	12	0.01
Weathering removal constant of all vegetation	3	-0.19	4	-0.07	3	-0.31	4	-0.07
Density of contaminated zone	8	0.03	5	0.07	11	-0.03	7	-0.04
Contaminated zone total porosity	9	0.03	6	0.06	10	-0.03	6	-0.04
Contaminated zone hydraulic conductivity	10	-0.02	12	-0.01	17	-0.01	18	0.00
Contaminated zone b parameter	12	-0.01	13	0.00	19	-0.01	19	0.00
Evapotranspiration coefficient	15	0.00	9	0.01	18	-0.01	9	-0.01
Depth of roots	13	0.01	14	0.00	8	-0.03	11	-0.01
Mass loading for inhalation	16	0.00	16	0.00	14	0.02	15	0.00
Irrigation	11	0.01	7	0.03	6	0.04	5	0.06
Kd of Ni-63 in Contaminated Zone	5	-0.06	3	-0.15	5	-0.08	3	-0.12
Plant transfer factor for Ni	2	0.20	2	0.50	2	0.41	1	0.68
Meat transfer factor for Ni	4	0.09	8	0.03	4	0.18	8	0.04
Milk transfer factor for Ni	1	0.88	1	0.67	1	0.93	2	0.57
Fish transfer factor for Ni	17	0.00	17	0.00	13	0.02	14	0.00
R-SQUARE		0.87		0.87		0.95		0.95

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the

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Part VI: Uncertainty Analysis

Probabilistic Input
0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004 .9495 .00006 .9937 .000076 .9983 .0001 1
14	RI	UNIFORM	.252	.618								
15	DCACTC(1)	LOGNORMAL-N	10.77	.88								
16	BRTF(82,1)	LOGNORMAL-N	-15.48	1.57								
17	BRTF(82,2)	TRUNCATED LOGNORMAL-N	-7.13	.7	.001	.999						
18	BRTF(82,3)	TRUNCATED LOGNORMAL-N	-8.11	.9	.001	.999						
19	BBIO(82,1)	LOGNORMAL-N	5.7	1.1								
20	DCACTC(2)	LOGUNIFORM	500	5000								
21	BRTF(94,1)	LOGUNIFORM	.0000106	.000644								
22	BRTF(94,2)	TRUNCATED LOGNORMAL-N	-9.21	.2	.001	.999						
23	BRTF(94,3)	TRUNCATED LOGNORMAL-N	-13.82	.5	.001	.999						
24	BBIO(94,1)	LOGNORMAL-N	3.4	1.1								
25	BRTF(88,1)	TRUNCATED LOGNORMAL-N	-3.22	.9	.001	.999						
26	BRTF(88,2)	TRUNCATED LOGNORMAL-N	-6.91	.7	.001	.999						
27	BRTF(88,3)	TRUNCATED LOGNORMAL-N	-6.91	.5	.001	.999						
28	BBIO(88,1)	LOGNORMAL-N	3.9	1.1								
29	DCACTC(4)	LOGUNIFORM	500	5000								
30	BRTF(90,1)	LOGUNIFORM	.0000106	.000644								
31	BRTF(90,2)	TRUNCATED LOGNORMAL-N	-9.21	1	.001	.999						
32	BRTF(90,3)	TRUNCATED LOGNORMAL-N	-12.21	.9	.001	.999						
33	BBIO(90,1)	LOGNORMAL-N	4.6	1.1								
34	DCACTC(5)	LOGNORMAL-N	4.99	2.37								
35	BRTF(92,1)	LOGNORMAL-N	-5.17	4.23								
36	BRTF(92,2)	TRUNCATED LOGNORMAL-N	-7.13	.7	.001	.999						
37	BRTF(92,3)	TRUNCATED LOGNORMAL-N	-7.82	.6	.001	.999						
38	BBIO(92,1)	LOGNORMAL-N	2.3	1.1								

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : Pu238-concrete-SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	33	-0.01	33	0.00	27	-0.01	32	0.00
External gamma shielding factor	21	-0.03	24	0.00	21	-0.02	25	0.00
Depth of soil mixing layer	11	0.03	17	0.01	26	0.01	31	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	6	-0.20	6	-0.04	4	-0.36	6	-0.04
Wet foliar interception fraction of leafy vegetables	5	0.26	5	0.05	3	0.41	4	0.04
Weathering removal constant of all vegetation	3	-0.52	3	-0.11	2	-0.74	2	-0.11
Density of contaminated zone	22	-0.02	9	-0.03	16	0.02	8	0.01
Contaminated zone total porosity	20	-0.03	7	-0.03	19	0.02	9	0.01
Contaminated zone hydraulic conductivity	16	0.03	21	0.00	12	0.03	15	0.00
Contaminated zone b parameter	28	0.02	28	0.00	37	0.00	38	0.00
Evapotranspiration coefficient	24	0.02	10	0.03	30	0.00	21	0.00
Depth of roots	17	-0.03	22	0.00	25	-0.01	30	0.00
Mass loading for inhalation	27	0.02	27	0.00	7	0.06	11	0.01
Irrigation	19	0.03	8	0.03	6	0.09	3	0.05
Kd of Pb-210 in Contaminated Zone	30	0.01	30	0.00	28	0.00	16	0.00
Plant transfer factor for Pb	8	0.05	12	0.01	34	0.00	27	0.00
Meat transfer factor for Pb	9	0.05	13	0.01	13	0.03	17	0.00
Milk transfer factor for Pb	31	0.01	31	0.00	15	-0.03	19	0.00
Fish transfer factor for Pb	32	-0.01	32	0.00	24	-0.01	29	0.00
Kd of Pu-238 in Contaminated Zone	2	-0.70	2	-0.26	1	-0.83	1	-0.95
Plant transfer factor for Pu	1	0.94	1	0.76	8	0.06	5	0.04
Meat transfer factor for Pu	29	0.01	29	0.00	18	0.02	22	0.00
Milk transfer factor for Pu	35	0.01	35	0.00	9	0.04	12	0.00
Fish transfer factor for Pu	7	0.13	11	0.02	5	0.19	7	0.02
Plant transfer factor for Ra	37	0.00	37	0.00	31	0.00	34	0.00
Meat transfer factor for Ra	14	0.03	20	0.01	10	0.04	13	0.00
Milk transfer factor for Ra	10	-0.04	15	-0.01	36	0.00	36	0.00
Fish transfer factor for Ra	38	0.00	38	0.00	35	0.00	35	0.00
Kd of Th-230 in Contaminated Zone	25	0.02	19	0.01	32	0.00	24	0.00
Plant transfer factor for Th	15	0.03	14	0.01	38	0.00	37	0.00
Meat transfer factor for Th	26	0.02	26	0.00	14	0.03	18	0.00
Milk transfer factor for Th	23	-0.02	25	0.00	23	-0.01	28	0.00
Fish transfer factor for Th	34	0.01	34	0.00	29	0.00	33	0.00
Kd of U-234 in Contaminated Zone	12	-0.03	16	-0.01	33	0.00	26	0.00
Plant transfer factor for U	4	0.36	4	0.07	22	0.01	10	0.01
Meat transfer factor for U	18	-0.03	23	0.00	11	-0.03	14	0.00
Milk transfer factor for U	13	0.03	18	0.01	20	0.02	23	0.00
Fish transfer factor for U	36	0.01	36	0.00	17	0.02	20	0.00
R-SQUARE		0.97		0.97		0.99		0.99

-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

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004 .9495 .00006 .9937 .000076 .9983 .0001 1
14	RI	UNIFORM	.252	.618								
15	DCACTC(1)	LOGUNIFORM	200	5000								
16	BRTF(89,1)	LOGUNIFORM	.0000106	.00331								
17	BRTF(89,2)	TRUNCATED LOGNORMAL-N	-10.82	1	.001	.999						
18	BRTF(89,3)	TRUNCATED LOGNORMAL-N	-13.12	.9	.001	.999						
19	BBIO(89,1)	LOGNORMAL-N	2.7	1.1								
20	DCACTC(2)	LOGUNIFORM	100	1000								
21	BRTF(91,1)	LOGUNIFORM	.000187	.0114								
22	BRTF(91,2)	TRUNCATED LOGNORMAL-N	-12.21	1	.001	.999						
23	BRTF(91,3)	TRUNCATED LOGNORMAL-N	-12.21	.9	.001	.999						
24	BBIO(91,1)	LOGNORMAL-N	2.3	1.1								
25	DCACTC(3)	LOGUNIFORM	500	5000								
26	BRTF(94,1)	LOGUNIFORM	.0000106	.000644								
27	BRTF(94,2)	TRUNCATED LOGNORMAL-N	-9.21	.2	.001	.999						
28	BRTF(94,3)	TRUNCATED LOGNORMAL-N	-13.82	.5	.001	.999						
29	BBIO(94,1)	LOGNORMAL-N	3.4	1.1								
30	DCACTC(4)	LOGNORMAL-N	4.99	2.37								
31	BRTF(92,1)	LOGNORMAL-N	-5.17	4.23								
32	BRTF(92,2)	TRUNCATED LOGNORMAL-N	-7.13	.7	.001	.999						
33	BRTF(92,3)	TRUNCATED LOGNORMAL-N	-7.82	.6	.001	.999						
34	BBIO(92,1)	LOGNORMAL-N	2.3	1.1								

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : Pu239-concrete-SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	7	0.05	11	0.01	8	0.09	11	0.01
External gamma shielding factor	33	0.00	33	0.00	12	0.05	17	0.00
Depth of soil mixing layer	18	0.02	20	0.00	19	0.01	25	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	5	-0.21	7	-0.04	4	-0.55	6	-0.04
Wet foliar interception fraction of leafy vegetables	4	0.25	4	0.05	3	0.59	5	0.04
Weathering removal constant of all vegetation	3	-0.50	3	-0.10	2	-0.87	2	-0.10
Density of contaminated zone	9	-0.03	5	-0.04	28	0.01	18	0.00
Contaminated zone total porosity	10	-0.03	6	-0.04	30	0.00	19	0.00
Contaminated zone hydraulic conductivity	11	-0.03	13	-0.01	9	-0.07	13	0.00
Contaminated zone b parameter	24	0.01	25	0.00	34	0.00	34	0.00
Evapotranspiration coefficient	21	0.02	10	0.02	14	-0.02	8	-0.01
Depth of roots	26	0.01	27	0.00	27	-0.01	31	0.00
Mass loading for inhalation	34	0.00	34	0.00	16	0.02	22	0.00
Irrigation	16	0.03	8	0.04	6	0.15	3	0.06
Kd of Ac-227 in Contaminated Zone	31	0.00	31	0.00	22	0.01	12	0.01
Plant transfer factor for Ac	30	0.01	28	0.00	26	0.01	14	0.00
Meat transfer factor for Ac	13	-0.03	15	-0.01	17	0.02	23	0.00
Milk transfer factor for Ac	12	0.03	14	0.01	18	0.02	24	0.00
Fish transfer factor for Ac	32	0.00	32	0.00	29	0.00	32	0.00
Kd of Pa-231 in Contaminated Zone	27	0.01	22	0.00	31	0.00	21	0.00
Plant transfer factor for Pa	19	0.02	18	0.01	32	0.00	27	0.00
Meat transfer factor for Pa	23	-0.01	24	0.00	33	0.00	33	0.00
Milk transfer factor for Pa	22	-0.01	23	0.00	24	-0.01	29	0.00
Fish transfer factor for Pa	25	-0.01	26	0.00	10	0.06	15	0.00
Kd of Pu-239 in Contaminated Zone	2	-0.69	2	-0.26	1	-0.91	1	-0.93
Plant transfer factor for Pu	1	0.94	1	0.77	7	0.14	4	0.06
Meat transfer factor for Pu	8	0.04	12	0.01	11	0.05	16	0.00
Milk transfer factor for Pu	14	0.03	16	0.01	21	-0.01	26	0.00
Fish transfer factor for Pu	6	0.14	9	0.02	5	0.27	7	0.02
Kd of U-235 in Contaminated Zone	15	0.03	17	0.01	20	0.01	10	0.01
Plant transfer factor for U	20	0.02	21	0.00	15	0.02	9	0.01
Meat transfer factor for U	29	-0.01	30	0.00	23	0.01	28	0.00
Milk transfer factor for U	28	-0.01	29	0.00	25	0.01	30	0.00
Fish transfer factor for U	17	-0.02	19	0.00	13	0.03	20	0.00
R-SQUARE		0.97		0.97		1.00		1.00

-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

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Part VI: Uncertainty Analysis

Probabilistic Input
0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004 .9495 .00006 .9937 .000076 .9983 .0001 1
14	RI	UNIFORM	.252	.618								
15	DCACTC(1)	LOGUNIFORM	200	5000								
16	BRTF(95,1)	LOGUNIFORM	.0000106	.00331								
17	BRTF(95,2)	TRUNCATED LOGNORMAL-N	-9.9	.2	.001	.999						
18	BRTF(95,3)	TRUNCATED LOGNORMAL-N	-13.12	.7	.001	.999						
19	BBIO(95,1)	LOGNORMAL-N	3.4	1.1								
20	DCACTC(2)	LOGUNIFORM	100	5000								
21	BRTF(93,1)	LOGUNIFORM	.0000106	.0114								
22	BRTF(93,2)	TRUNCATED LOGNORMAL-N	-6.91	.7	.001	.999						
23	BRTF(93,3)	TRUNCATED LOGNORMAL-N	-11.51	.7	.001	.999						
24	BBIO(93,1)	LOGNORMAL-N	3.4	1.1								
25	DCACTC(4)	LOGUNIFORM	500	5000								
26	BRTF(94,1)	LOGUNIFORM	.0000106	.000644								
27	BRTF(94,2)	TRUNCATED LOGNORMAL-N	-9.21	.2	.001	.999						
28	BRTF(94,3)	TRUNCATED LOGNORMAL-N	-13.82	.5	.001	.999						
29	BBIO(94,1)	LOGNORMAL-N	3.4	1.1								
30	DCACTC(5)	LOGUNIFORM	500	5000								
31	BRTF(90,1)	LOGUNIFORM	.0000106	.000644								
32	BRTF(90,2)	TRUNCATED LOGNORMAL-N	-9.21	1	.001	.999						
33	BRTF(90,3)	TRUNCATED LOGNORMAL-N	-12.21	.9	.001	.999						
34	BBIO(90,1)	LOGNORMAL-N	4.6	1.1								
35	DCACTC(6)	LOGNORMAL-N	4.99	2.37								
36	BRTF(92,1)	LOGNORMAL-N	-5.17	4.23								
37	BRTF(92,2)	TRUNCATED LOGNORMAL-N	-7.13	.7	.001	.999						
38	BRTF(92,3)	TRUNCATED LOGNORMAL-N	-7.82	.6	.001	.999						
39	BBIO(92,1)	LOGNORMAL-N	2.3	1.1								

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : Pu241-concrete-SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	11	0.04	14	0.01	8	0.07	11	0.00
External gamma shielding factor	23	-0.01	24	0.00	10	0.06	12	0.00
Depth of soil mixing layer	25	-0.01	26	0.00	34	0.00	37	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	4	-0.16	4	-0.03	4	-0.51	6	-0.03
Wet foliar interception fraction of leafy vegetables	5	0.14	5	0.03	3	0.56	5	0.03
Weathering removal constant of all vegetation	3	-0.37	3	-0.08	2	-0.85	3	-0.07
Density of contaminated zone	39	0.00	33	0.00	28	0.01	17	0.00
Contaminated zone total porosity	35	0.00	20	-0.01	21	0.01	10	0.00
Contaminated zone hydraulic conductivity	29	-0.01	31	0.00	16	-0.02	22	0.00
Contaminated zone b parameter	9	0.05	13	0.01	14	0.04	18	0.00
Evapotranspiration coefficient	19	0.02	6	0.03	32	0.00	23	0.00
Depth of roots	7	-0.06	11	-0.01	15	-0.03	21	0.00
Mass loading for inhalation	34	0.00	36	0.00	12	0.05	14	0.00
Irrigation	21	0.01	8	0.02	7	0.12	4	0.04
Kd of Am-241 in Contaminated Zone	2	-0.65	2	-0.22	1	-0.95	1	-0.92
Plant transfer factor for Am	1	0.96	1	0.83	5	0.24	2	0.08
Meat transfer factor for Am	37	0.00	38	0.00	36	0.00	38	0.00
Milk transfer factor for Am	14	0.03	16	0.01	13	0.04	16	0.00
Fish transfer factor for Am	6	0.10	7	0.02	6	0.22	8	0.01
Kd of Np-237 in Contaminated Zone	22	0.01	22	0.00	35	0.00	27	0.00
Plant transfer factor for Np	17	0.02	18	0.01	39	0.00	36	0.00
Meat transfer factor for Np	28	-0.01	30	0.00	27	0.01	33	0.00
Milk transfer factor for Np	38	0.00	39	0.00	25	-0.01	32	0.00
Fish transfer factor for Np	16	0.03	19	0.01	33	0.00	35	0.00
Kd of Pu-241 in Contaminated Zone	33	0.01	28	0.00	9	-0.06	7	-0.02
Plant transfer factor for Pu	10	0.04	10	0.01	20	-0.01	9	0.00
Meat transfer factor for Pu	27	-0.01	29	0.00	17	0.02	24	0.00
Milk transfer factor for Pu	26	0.01	27	0.00	29	0.00	34	0.00
Fish transfer factor for Pu	24	0.01	25	0.00	11	0.05	13	0.00
Kd of Th-229 in Contaminated Zone	13	0.03	12	0.01	37	0.00	28	0.00
Plant transfer factor for Th	8	0.05	9	0.02	31	0.00	20	0.00
Meat transfer factor for Th	15	0.03	17	0.01	38	0.00	39	0.00
Milk transfer factor for Th	12	-0.03	15	-0.01	24	0.01	31	0.00
Fish transfer factor for Th	32	0.01	35	0.00	23	0.01	30	0.00
Kd of U-233 in Contaminated Zone	20	0.01	23	0.00	30	0.00	19	0.00
Plant transfer factor for U	31	-0.01	34	0.00	26	-0.01	15	0.00
Meat transfer factor for U	30	-0.01	32	0.00	18	-0.02	25	0.00
Milk transfer factor for U	36	0.00	37	0.00	19	-0.01	26	0.00
Fish transfer factor for U	18	0.02	21	0.00	22	0.01	29	0.00
R-SQUARE		0.96		0.96		1.00		1.00

-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

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004
	.9495	.00006	.9937	.000076	.9983	.0001	1					
14	RI	UNIFORM	.252	.618								
15	DCACTC(1)	LOGNORMAL-N	7.35	1.11								
16	BRTF(51,1)	LOGNORMAL-N	-9.37	1.98								
17	BRTF(51,2)	TRUNCATED LOGNORMAL-N	-6.91	.9	.001	.999						
18	BRTF(51,3)	TRUNCATED LOGNORMAL-N	-9.72	.9	.001	.999						
19	BBIO(51,1)	LOGNORMAL-N	4.6	1.1								

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : SB125-concrete-SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	12	0.02	14	0.00	7	0.04	9	0.00
External gamma shielding factor	1	1.00	1	1.00	1	1.00	1	1.00
Depth of soil mixing layer	10	0.02	13	0.00	15	0.01	17	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	14	-0.01	16	0.00	14	0.01	16	0.00
Wet foliar interception fraction of leafy vegetables	13	0.01	15	0.00	12	0.01	14	0.00
Weathering removal constant of all vegetation	5	-0.08	9	0.00	3	-0.07	6	0.00
Density of contaminated zone	16	0.01	7	0.00	5	-0.04	3	-0.01
Contaminated zone total porosity	15	0.01	6	0.00	6	-0.04	4	-0.01
Contaminated zone hydraulic conductivity	19	-0.01	19	0.00	10	0.01	12	0.00
Contaminated zone b parameter	18	-0.01	18	0.00	9	-0.01	11	0.00
Evapotranspiration coefficient	11	-0.02	5	0.00	18	0.00	10	0.00
Depth of roots	9	0.02	12	0.00	19	0.00	19	0.00
Mass loading for inhalation	7	-0.04	11	0.00	11	-0.01	13	0.00
Irrigation	8	0.02	4	0.00	17	0.01	7	0.00
Kd of Sb-125 in Contaminated Zone	3	-0.37	3	0.00	2	-0.07	2	-0.01
Plant transfer factor for Sb	2	0.92	2	0.02	8	0.02	5	0.00
Meat transfer factor for Sb	4	0.08	8	0.00	4	0.05	8	0.00
Milk transfer factor for Sb	17	0.01	17	0.00	13	0.01	15	0.00
Fish transfer factor for Sb	6	0.06	10	0.00	16	-0.01	18	0.00
R-SQUARE		1.00		1.00		1.00		1.00

-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

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Part VI: Uncertainty Analysis

Probabilistic Input
0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DCACTC(1)	UNIFORM	10	11								
13	BRTF(38,1)	UNIFORM	.587	.696								
14	BRTF(38,2)	TRUNCATED LOGNORMAL-N	-4.61	.4	.001	.999						
15	BRTF(38,3)	TRUNCATED LOGNORMAL-N	-6.21	.5	.001	.999						
16	BBIO(38,1)	LOGNORMAL-N	4.1	1.1								
17	DROOT	UNIFORM	.3	3.8								
18	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004	.9495	.00006	.9937	.000076	.9983	.0001	1
19	RI	UNIFORM	.252	.618								

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : Sr-90-concrete.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	13	0.02	14	0.00	11	-0.02	13	-0.01
External gamma shielding factor	18	0.01	19	0.00	13	0.01	15	0.00
Depth of soil mixing layer	12	0.03	12	0.01	17	0.01	17	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	6	-0.30	9	-0.06	6	-0.17	9	-0.05
Wet foliar interception fraction of leafy vegetables	5	0.34	8	0.08	4	0.21	7	0.07
Weathering removal constant of all vegetation	2	-0.86	2	-0.34	2	-0.76	2	-0.36
Density of contaminated zone	11	-0.04	11	-0.06	19	0.00	18	0.00
Contaminated zone total porosity	10	-0.04	10	-0.06	16	-0.01	11	-0.02
Contaminated zone hydraulic conductivity	15	-0.01	16	0.00	10	0.03	12	0.01
Contaminated zone b parameter	16	-0.01	17	0.00	14	0.01	16	0.00
Evapotranspiration coefficient	19	0.00	13	0.01	15	0.01	10	0.02
Kd of Sr-90 in Contaminated Zone	9	-0.08	6	-0.12	9	-0.08	6	-0.16
Plant transfer factor for Sr	8	0.17	4	0.24	8	0.10	5	0.21
Meat transfer factor for Sr	3	0.86	3	0.34	3	0.74	3	0.34
Milk transfer factor for Sr	1	0.96	1	0.72	1	0.91	1	0.67
Fish transfer factor for Sr	4	0.46	7	0.11	5	0.20	8	0.06
Depth of roots	14	0.02	15	0.00	12	0.01	14	0.00
Mass loading for inhalation	17	-0.01	18	0.00	18	0.00	19	0.00
Irrigation	7	0.17	5	0.24	7	0.10	4	0.21
R-SQUARE		0.96		0.96		0.91		0.91

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the

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Part VI: Uncertainty Analysis

Probabilistic Input

0Number of Sample Runs: 2000

Number	Name	Distribution	Parameters									
1	SHF3	UNIFORM	.15	.95								
2	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1						
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	DENSCZ	UNIFORM	1.41	1.67								
8	TPCZ	UNIFORM	.24	.36								
9	HCCZ	LOGUNIFORM	10000	10000000								
10	BCZ	BOUNDED LOGNORMAL-N	-.0253	.216	.501	1.9						
11	EVAPTR	UNIFORM	.5	.75								
12	DROOT	UNIFORM	.3	3.8								
13	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119	.00004 .9495 .00006 .9937 .000076 .9983 .0001 1
14	RI	UNIFORM	.252	.618								
15	DCACTC(1)	UNIFORM	6	21								
16	BRTF(43,1)	UNIFORM	.185	1.73								
17	BRTF(43,2)	TRUNCATED LOGNORMAL-N	-9.21	.7	.001	.999						
18	BRTF(43,3)	TRUNCATED LOGNORMAL-N	-6.91	.7	.001	.999						
19	BBIO(43,1)	LOGNORMAL-N	3	1.1								

Title : YR submerged concrete- Intruder (no cover) Scenario
Input File : Tc99-concrete-SA.RAD

Coefficients for peak of mean dose time Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	15	0.01	18	0.00	18	-0.01	18	0.00
External gamma shielding factor	10	0.03	13	0.00	19	0.00	19	0.00
Depth of soil mixing layer	9	0.04	12	0.01	10	-0.03	11	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	6	-0.09	7	-0.01	6	-0.15	9	-0.01
Wet foliar interception fraction of leafy vegetables	5	0.14	6	0.02	5	0.16	8	0.02
Weathering removal constant of all vegetation	3	-0.43	4	-0.06	3	-0.48	4	-0.05
Density of contaminated zone	16	0.01	8	0.01	9	-0.03	7	-0.02
Contaminated zone total porosity	18	0.01	11	0.01	8	-0.03	6	-0.02
Contaminated zone hydraulic conductivity	14	-0.02	17	0.00	17	-0.01	17	0.00
Contaminated zone b parameter	11	-0.03	14	0.00	13	0.02	14	0.00
Evapotranspiration coefficient	17	0.01	9	0.01	14	0.02	10	0.01
Depth of roots	19	0.00	19	0.00	11	-0.03	12	0.00
Mass loading for inhalation	13	-0.02	16	0.00	15	-0.02	15	0.00
Irrigation	8	0.05	5	0.04	7	0.04	5	0.02
Kd of Tc-99 in Contaminated Zone	4	-0.25	2	-0.21	4	-0.24	2	-0.16
Plant transfer factor for Tc	2	0.68	1	0.77	2	0.79	1	0.83
Meat transfer factor for Tc	12	0.02	15	0.00	12	0.02	13	0.00
Milk transfer factor for Tc	1	0.85	3	0.19	1	0.84	3	0.14
Fish transfer factor for Tc	7	0.05	10	0.01	16	0.01	16	0.00
R-SQUARE		0.99		0.99		0.99		0.99

-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