

Probabilistic results summary : RESRAD Default

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Probabilistic Input

Number of Sample Runs: 3000

Number	Name	Distribution	Parameters							
1	DENSCV	TRUNCATED NORMAL	1.51	.159	.001	.999				
2	VCZ	CONTINUOUS LOGARITHMIC4	5.E-8	0	.0007	.22	.005	.95	.2	1
3	TPCZ	TRUNCATED NORMAL	.43	.06	.001	.999				
4	HCCZ	LOGUNIFORM	786	17000						
5	BCZ	TRUNCATED LOGNORMAL-N	-.0235	.216	.001	.999				
6	EVAPTR	UNIFORM	.5	.75						
7	WIND	BOUNDED LOGNORMAL-N	1.445	.2419	1.4	13				
8	RUNOFF	UNIFORM	.1	.8						
9	DENSAQ	TRUNCATED NORMAL	1.51	.16	.001	.999				
10	TPSZ	TRUNCATED NORMAL	.43	.06	.001	.999				
11	EPSZ	TRUNCATED NORMAL	.383	.061	.001	.999				
12	HCSZ	LOGUNIFORM	786	17000						
13	HGWT	BOUNDED LOGNORMAL-N	-5.11	1.77	.00007	.5				
14	DWIBWT	TRIANGULAR	6	10	30					
15	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003 .8119
16	DM	TRIANGULAR	0	.15	.6					
17	DROOT	UNIFORM	.3	4						
18	WLAM	TRIANGULAR	5.1	18	84					
19	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999				
20	RWET(2)	TRIANGULAR	.06	.67	.95					
21	SHF3	UNIFORM	.15	.95						
22	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1				
23	VCV	CONTINUOUS LOGARITHMIC4	5.E-8	0	.0007	.22	.005	.95	.2	1
24	TPUZ(1)	TRUNCATED NORMAL	.43	.06	.001	.999				
25	EPUZ(1)	TRUNCATED NORMAL	.383	.061	.001	.999				
26	HCUZ(1)	LOGUNIFORM	786	17000						
27	BUZ(1)	TRUNCATED LOGNORMAL-N	-.0253	.216	.001	.999				
28	BRTF(27,1)	LOGNORMAL-N	-2.53	.916291						
29	BRTF(27,2)	LOGNORMAL-N	-3.51	1.029619						
30	BRTF(27,3)	LOGNORMAL-N	-6.21	.7						
31	BRTF(55,1)	LOGNORMAL-N	-3.22	.993252						
32	BRTF(55,2)	LOGNORMAL-N	-3	.405465						
33	BRTF(55,3)	LOGNORMAL-N	-4.61	.47						
34	BRTF(28,1)	LOGNORMAL-N	-3	.916291						
35	BRTF(28,2)	LOGNORMAL-N	-5.3	.916291						
36	BRTF(28,3)	LOGNORMAL-N	-3.91	.69315						
37	BRTF(38,1)	LOGNORMAL-N	-1.2	.993252						
38	BRTF(38,2)	LOGNORMAL-N	-4.61	.405465						
39	BRTF(38,3)	LOGNORMAL-N	-6.21	.47						
40	DENSCZ	TRUNCATED NORMAL	1.51	.16	.001	.999				
41	DENSUZ(1)	TRUNCATED NORMAL	1.51	.16	.001	.999				

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Probabilistic Total Dose Summary

Nuclide (j)	Peak Time	Peak Dose	DOSE(j,t), mrem/yr							
			t= 0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134										
Min	0.00E+00	1.50E+00	1.50E+00	1.07E+00	5.46E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.79E+01	2.79E+01	1.99E+01	1.01E+01	9.39E-01	3.00E-05	5.54E-14	0.00E+00	0.00E+00
Avg	0.00E+00	3.65E+00	3.65E+00	2.60E+00	1.33E+00	1.25E-01	4.30E-06	8.64E-15	0.00E+00	0.00E+00
Std	0.00E+00	1.67E+00	1.67E+00	1.19E+00	6.06E-01	5.83E-02	2.08E-06	4.18E-15	0.00E+00	0.00E+00
ΣALL										
Min	0.00E+00	1.50E+00	1.50E+00	1.07E+00	5.46E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.79E+01	2.79E+01	1.99E+01	1.01E+01	9.39E-01	3.00E-05	5.54E-14	0.00E+00	0.00E+00
Avg	0.00E+00	3.65E+00	3.65E+00	2.60E+00	1.33E+00	1.25E-01	4.30E-06	8.64E-15	0.00E+00	0.00E+00
Std	0.00E+00	1.67E+00	1.67E+00	1.19E+00	6.06E-01	5.83E-02	2.08E-06	4.18E-15	0.00E+00	0.00E+00

ΣALL is total dose summed for all nuclides.

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Probabilistic Risk Summary

Nuclide (j)	t=	RISK(j,t)							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		3.89E-06	2.70E-06	1.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		6.85E-05	4.88E-05	2.48E-05	2.30E-06	7.37E-11	1.37E-19	3.12E-39	1.19E-39
Avg		9.37E-06	6.69E-06	3.41E-06	3.20E-07	1.11E-11	2.23E-20	1.48E-42	4.40E-43
Std		4.17E-06	2.98E-06	1.52E-06	1.46E-07	5.23E-12	1.06E-20	0.00E+00	0.00E+00
ΣALL									
Min		3.89E-06	2.70E-06	1.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		6.85E-05	4.88E-05	2.48E-05	2.30E-06	7.37E-11	1.37E-19	3.12E-39	1.19E-39
Avg		9.37E-06	6.69E-06	3.41E-06	3.20E-07	1.11E-11	2.23E-20	1.48E-42	4.40E-43
Std		4.17E-06	2.98E-06	1.52E-06	1.46E-07	5.23E-12	1.06E-20	0.00E+00	0.00E+00

ΣALL is total risk summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Ground External

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		1.19E+00	8.49E-01	4.34E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		6.00E+00	4.29E+00	2.19E+00	2.09E-01	7.43E-06	1.54E-14	0.00E+00	0.00E+00
Avg		2.54E+00	1.81E+00	9.26E-01	8.72E-02	3.04E-06	6.24E-15	0.00E+00	0.00E+00
Std		8.88E-01	6.35E-01	3.24E-01	3.20E-02	1.20E-06	2.58E-15	0.00E+00	0.00E+00
ΣALL									
Min		1.19E+00	8.49E-01	4.34E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		6.00E+00	4.29E+00	2.19E+00	2.09E-01	7.43E-06	1.54E-14	0.00E+00	0.00E+00
Avg		2.54E+00	1.81E+00	9.26E-01	8.72E-02	3.04E-06	6.24E-15	0.00E+00	0.00E+00
Std		8.88E-01	6.35E-01	3.24E-01	3.20E-02	1.20E-06	2.58E-15	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Inhalation (w/o Radon)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		1.50E-09	1.07E-09	5.48E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		2.87E-06	2.05E-06	1.05E-06	9.99E-08	3.57E-12	7.47E-21	0.00E+00	0.00E+00
Avg		4.40E-07	3.15E-07	1.61E-07	1.51E-08	5.29E-13	1.08E-21	0.00E+00	0.00E+00
Std		2.90E-07	2.08E-07	1.06E-07	1.02E-08	3.67E-13	7.69E-22	0.00E+00	0.00E+00
ΣALL									
Min		1.50E-09	1.07E-09	5.48E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		2.87E-06	2.05E-06	1.05E-06	9.99E-08	3.57E-12	7.47E-21	0.00E+00	0.00E+00
Avg		4.40E-07	3.15E-07	1.61E-07	1.51E-08	5.29E-13	1.08E-21	0.00E+00	0.00E+00
Std		2.90E-07	2.08E-07	1.06E-07	1.02E-08	3.67E-13	7.69E-22	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Radon (Water Ind.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Plant (Water Ind.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		2.68E-03	1.90E-03	9.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		7.06E+00	5.02E+00	2.54E+00	2.34E-01	7.99E-06	1.66E-14	0.00E+00	0.00E+00
Avg		3.04E-01	2.17E-01	1.10E-01	1.02E-02	3.41E-07	6.39E-16	0.00E+00	0.00E+00
Std		4.47E-01	3.18E-01	1.61E-01	1.50E-02	5.07E-07	9.76E-16	0.00E+00	0.00E+00
ΣALL									
Min		2.68E-03	1.90E-03	9.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		7.06E+00	5.02E+00	2.54E+00	2.34E-01	7.99E-06	1.66E-14	0.00E+00	0.00E+00
Avg		3.04E-01	2.17E-01	1.10E-01	1.02E-02	3.41E-07	6.39E-16	0.00E+00	0.00E+00
Std		4.47E-01	3.18E-01	1.61E-01	1.50E-02	5.07E-07	9.76E-16	0.00E+00	0.00E+00

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Probabilistic Dose vs Pathway(i): Meat (Water Ind.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		4.01E-02	2.86E-02	1.46E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		5.22E+00	3.71E+00	1.88E+00	1.73E-01	6.00E-06	1.25E-14	0.00E+00	0.00E+00
Avg		3.37E-01	2.40E-01	1.22E-01	1.14E-02	3.86E-07	7.48E-16	0.00E+00	0.00E+00
Std		3.79E-01	2.70E-01	1.37E-01	1.28E-02	4.37E-07	8.47E-16	0.00E+00	0.00E+00
ΣALL									
Min		4.01E-02	2.86E-02	1.46E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		5.22E+00	3.71E+00	1.88E+00	1.73E-01	6.00E-06	1.25E-14	0.00E+00	0.00E+00
Avg		3.37E-01	2.40E-01	1.22E-01	1.14E-02	3.86E-07	7.48E-16	0.00E+00	0.00E+00
Std		3.79E-01	2.70E-01	1.37E-01	1.28E-02	4.37E-07	8.47E-16	0.00E+00	0.00E+00

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Probabilistic Dose vs Pathway(i): Milk (Water Ind.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		2.34E-02	1.67E-02	8.53E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		1.53E+01	1.09E+01	5.52E+00	5.13E-01	1.62E-05	2.51E-14	0.00E+00	0.00E+00
Avg		4.67E-01	3.33E-01	1.69E-01	1.58E-02	5.30E-07	1.01E-15	0.00E+00	0.00E+00
Std		6.93E-01	4.94E-01	2.51E-01	2.35E-02	7.90E-07	1.48E-15	0.00E+00	0.00E+00
ΣALL									
Min		2.34E-02	1.67E-02	8.53E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		1.53E+01	1.09E+01	5.52E+00	5.13E-01	1.62E-05	2.51E-14	0.00E+00	0.00E+00
Avg		4.67E-01	3.33E-01	1.69E-01	1.58E-02	5.30E-07	1.01E-15	0.00E+00	0.00E+00
Std		6.93E-01	4.94E-01	2.51E-01	2.35E-02	7.90E-07	1.48E-15	0.00E+00	0.00E+00

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Probabilistic Dose vs Pathway(i): Soil Ingestion

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		8.81E-04	6.29E-04	2.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		8.81E-04	6.30E-04	3.22E-04	3.07E-05	1.10E-09	2.30E-18	0.00E+00	0.00E+00
Avg		8.81E-04	6.29E-04	3.21E-04	3.02E-05	1.06E-09	2.16E-18	0.00E+00	0.00E+00
Std		3.78E-08	8.43E-08	9.58E-07	3.24E-06	1.84E-10	4.54E-19	0.00E+00	0.00E+00
ΣALL									
Min		8.81E-04	6.29E-04	2.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		8.81E-04	6.30E-04	3.22E-04	3.07E-05	1.10E-09	2.30E-18	0.00E+00	0.00E+00
Avg		8.81E-04	6.29E-04	3.21E-04	3.02E-05	1.06E-09	2.16E-18	0.00E+00	0.00E+00
Std		3.78E-08	8.43E-08	9.58E-07	3.24E-06	1.84E-10	4.54E-19	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

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Probabilistic Dose vs Pathway(i): Water Ingestion

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\SOIL DCGL\SENSITIVITY ANALYSIS\RESRAD INPUT FILE\ZION SOIL SENSITIVITY.RAD

Probabilistic Dose vs Pathway(i): Fish Ingestion

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\SOIL DCGL\SENSITIVITY ANALYSIS\RESRAD INPUT FILE\ZION SOIL SENSITIVITY.RAD

Probabilistic Dose vs Pathway(i): Radon (Water Dep.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\SOIL DCGL\SENSITIVITY ANALYSIS\RESRAD INPUT FILE\ZION SOIL SENSITIVITY.RAD

Probabilistic Dose vs Pathway(i): Plant (Water Dep.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Probabilistic Dose vs Pathway(i): Meat (Water Dep.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Probabilistic Dose vs Pathway(i): Milk (Water Dep.)

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ΣALL									
Min		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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

ΣALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Cumulative Probability Summary for: Total Dose Over Pathways

Cumulative Probability	Dose(t), mrem/yr							
	t= 0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
0.025	1.87E+00	1.34E+00	6.81E-01	6.15E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.050	2.03E+00	1.45E+00	7.40E-01	6.82E-02	2.25E-06	4.39E-15	0.00E+00	0.00E+00
0.075	2.12E+00	1.51E+00	7.72E-01	7.23E-02	2.46E-06	4.90E-15	0.00E+00	0.00E+00
0.100	2.20E+00	1.57E+00	8.01E-01	7.48E-02	2.59E-06	5.20E-15	0.00E+00	0.00E+00
0.125	2.28E+00	1.63E+00	8.31E-01	7.73E-02	2.69E-06	5.41E-15	0.00E+00	0.00E+00
0.150	2.36E+00	1.68E+00	8.59E-01	8.04E-02	2.79E-06	5.59E-15	0.00E+00	0.00E+00
0.175	2.42E+00	1.73E+00	8.83E-01	8.29E-02	2.89E-06	5.83E-15	0.00E+00	0.00E+00
0.200	2.47E+00	1.76E+00	9.00E-01	8.50E-02	2.96E-06	6.00E-15	0.00E+00	0.00E+00
0.225	2.53E+00	1.81E+00	9.22E-01	8.67E-02	3.03E-06	6.17E-15	0.00E+00	0.00E+00
0.250	2.60E+00	1.86E+00	9.47E-01	8.93E-02	3.10E-06	6.31E-15	0.00E+00	0.00E+00
0.275	2.65E+00	1.89E+00	9.66E-01	9.09E-02	3.18E-06	6.44E-15	0.00E+00	0.00E+00
0.300	2.71E+00	1.94E+00	9.88E-01	9.29E-02	3.24E-06	6.61E-15	0.00E+00	0.00E+00
0.325	2.78E+00	1.99E+00	1.01E+00	9.55E-02	3.33E-06	6.77E-15	0.00E+00	0.00E+00
0.350	2.85E+00	2.04E+00	1.04E+00	9.79E-02	3.41E-06	6.93E-15	0.00E+00	0.00E+00
0.375	2.91E+00	2.08E+00	1.06E+00	1.00E-01	3.50E-06	7.08E-15	0.00E+00	0.00E+00
0.400	2.99E+00	2.13E+00	1.09E+00	1.03E-01	3.58E-06	7.26E-15	0.00E+00	0.00E+00
0.425	3.05E+00	2.18E+00	1.11E+00	1.05E-01	3.67E-06	7.43E-15	0.00E+00	0.00E+00
0.450	3.13E+00	2.24E+00	1.14E+00	1.08E-01	3.76E-06	7.62E-15	0.00E+00	0.00E+00
0.475	3.20E+00	2.29E+00	1.17E+00	1.10E-01	3.86E-06	7.80E-15	0.00E+00	0.00E+00
0.500	3.28E+00	2.34E+00	1.19E+00	1.13E-01	3.94E-06	7.99E-15	0.00E+00	0.00E+00
0.525	3.35E+00	2.39E+00	1.22E+00	1.15E-01	4.03E-06	8.15E-15	0.00E+00	0.00E+00
0.550	3.43E+00	2.45E+00	1.25E+00	1.18E-01	4.12E-06	8.38E-15	0.00E+00	0.00E+00
0.575	3.51E+00	2.51E+00	1.28E+00	1.21E-01	4.22E-06	8.55E-15	0.00E+00	0.00E+00
0.600	3.59E+00	2.56E+00	1.31E+00	1.24E-01	4.33E-06	8.79E-15	0.00E+00	0.00E+00
0.625	3.68E+00	2.63E+00	1.34E+00	1.27E-01	4.43E-06	9.03E-15	0.00E+00	0.00E+00
0.650	3.77E+00	2.69E+00	1.37E+00	1.30E-01	4.55E-06	9.24E-15	0.00E+00	0.00E+00
0.675	3.87E+00	2.76E+00	1.41E+00	1.33E-01	4.65E-06	9.50E-15	0.00E+00	0.00E+00
0.700	3.94E+00	2.82E+00	1.44E+00	1.36E-01	4.78E-06	9.70E-15	0.00E+00	0.00E+00
0.725	4.06E+00	2.90E+00	1.48E+00	1.40E-01	4.92E-06	9.95E-15	0.00E+00	0.00E+00
0.750	4.20E+00	3.00E+00	1.53E+00	1.45E-01	5.06E-06	1.03E-14	0.00E+00	0.00E+00
0.775	4.33E+00	3.09E+00	1.58E+00	1.49E-01	5.22E-06	1.06E-14	0.00E+00	0.00E+00
0.800	4.49E+00	3.20E+00	1.63E+00	1.54E-01	5.42E-06	1.10E-14	0.00E+00	0.00E+00
0.825	4.67E+00	3.34E+00	1.70E+00	1.61E-01	5.64E-06	1.14E-14	0.00E+00	0.00E+00
0.850	4.91E+00	3.51E+00	1.78E+00	1.69E-01	5.88E-06	1.19E-14	0.00E+00	0.00E+00
0.875	5.18E+00	3.70E+00	1.89E+00	1.79E-01	6.23E-06	1.25E-14	0.00E+00	0.00E+00
0.900	5.47E+00	3.90E+00	1.99E+00	1.88E-01	6.54E-06	1.33E-14	0.00E+00	0.00E+00
0.925	5.85E+00	4.18E+00	2.14E+00	2.02E-01	7.04E-06	1.42E-14	0.00E+00	0.00E+00
0.950	6.40E+00	4.57E+00	2.33E+00	2.21E-01	7.69E-06	1.56E-14	0.00E+00	0.00E+00
0.975	7.61E+00	5.44E+00	2.72E+00	2.55E-01	8.90E-06	1.81E-14	0.00E+00	0.00E+00
1.000	2.79E+01	1.99E+01	1.01E+01	9.39E-01	3.00E-05	5.54E-14	0.00E+00	0.00E+00

Probabilistic results summary : RESRAD Default

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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	3.658E+00
2	0.000E+00	3.631E+00
3	0.000E+00	3.648E+00

Title : RESRAD Default

Input File : ZION SOIL SENSITIVITY.RAD

Coefficients for peak All Pathways Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
	1		1		1		1	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Density of cover material	28	-0.02	29	-0.01	34	0.01	34	0.00
Contaminated zone erosion rate	9	-0.05	9	-0.02	12	0.04	12	0.01
Contaminated zone total porosity	13	0.04	13	0.02	31	0.01	31	0.00
Contaminated zone hydraulic conductivity	26	-0.02	26	-0.01	9	-0.04	9	-0.02
Contaminated zone b parameter	37	0.00	37	0.00	24	0.02	24	0.01
Evapotranspiration coefficient	39	0.00	39	0.00	35	-0.01	35	0.00
Wind Speed	27	-0.02	27	-0.01	19	0.03	19	0.01
Runoff coefficient	10	0.04	10	0.02	32	0.01	32	0.00
Density of saturated zone	40	0.00	40	0.00	40	0.00	40	0.00
Saturated zone total porosity	15	0.03	15	0.01	6	0.07	6	0.03
Saturated zone effective porosity	7	-0.06	7	-0.02	33	0.01	33	0.00
Saturated zone hydraulic conductivity	21	-0.02	21	-0.01	18	0.03	18	0.01
Saturated zone hydraulic gradient	16	0.03	16	0.01	22	0.02	22	0.01
Well pump intake depth	38	0.00	38	0.00	29	-0.02	29	-0.01
Mass loading for inhalation	12	0.04	12	0.02	25	0.02	25	0.01
Depth of soil mixing layer	6	0.06	6	0.03	11	-0.04	11	-0.01
Depth of roots	3	-0.52	3	-0.27	3	-0.60	3	-0.26
Weathering removal constant of all vegetation	20	0.02	20	0.01	20	0.02	20	0.01
Wet weight crop yield of fruit, grain and non-leafy vegetables	18	-0.03	19	-0.01	15	0.03	15	0.01
Wet foliar interception fraction of leafy vegetables	19	0.03	18	0.01	14	-0.03	14	-0.01
Indoor dust filtration factor	34	-0.01	34	0.00	10	-0.04	10	-0.01
External gamma shielding factor	2	0.76	2	0.52	1	0.90	1	0.72
Cover erosion rate	33	0.01	33	0.00	23	0.02	23	0.01
Total Porosity of Unsaturated zone 1	32	-0.01	32	-0.01	37	0.00	37	0.00
Effective Porosity of Unsaturated zone 1	25	-0.02	25	-0.01	41	0.00	41	0.00
Hydraulic Conductivity of Unsaturated zone 1	30	-0.01	30	-0.01	30	-0.01	30	0.00
b Parameter of Unsaturated zone 1	41	0.00	41	0.00	27	-0.02	27	-0.01
Plant transfer factor for Co	35	-0.01	35	0.00	28	0.02	28	0.01
Meat transfer factor for Co	11	0.04	11	0.02	26	0.02	26	0.01
Milk transfer factor for Co	36	0.01	36	0.00	39	0.00	39	0.00
Plant transfer factor for Cs	1	0.83	1	0.67	2	0.83	2	0.52
Meat transfer factor for Cs	5	0.20	5	0.09	5	0.22	5	0.08
Milk transfer factor for Cs	4	0.32	4	0.15	4	0.34	4	0.13
Plant transfer factor for Ni	29	0.02	28	0.01	13	0.04	13	0.01
Meat transfer factor for Ni	8	0.05	8	0.02	38	0.00	38	0.00
Milk transfer factor for Ni	24	0.02	24	0.01	7	0.06	7	0.02
Plant transfer factor for Sr	23	-0.02	23	-0.01	36	0.00	36	0.00
Meat transfer factor for Sr	31	0.01	31	0.01	8	0.05	8	0.02
Milk transfer factor for Sr	14	-0.03	14	-0.01	16	-0.03	16	-0.01
Density of contaminated zone	22	0.02	22	0.01	17	-0.03	17	-0.01
Density of Unsaturated zone 1	17	0.03	17	0.01	21	-0.02	21	-0.01
R-SQUARE		0.81		0.81		0.88		0.88

-Rank is set to zero if the dose is zero or the correlation matrix is singular.

-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Title : RESRAD Default

Input File : ZION SOIL SENSITIVITY.RAD

Coefficients for peak All Pathways Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	2		2		2		2	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Density of cover material	16	0.04	16	0.01	27	0.02	27	0.01
Contaminated zone erosion rate	36	0.00	36	0.00	40	0.00	40	0.00
Contaminated zone total porosity	25	-0.03	25	-0.01	14	-0.04	14	-0.01
Contaminated zone hydraulic conductivity	18	-0.04	18	-0.01	32	0.01	32	0.00
Contaminated zone b parameter	8	0.06	8	0.02	6	0.09	6	0.03
Evapotranspiration coefficient	17	0.04	17	0.01	29	-0.01	29	0.00
Wind Speed	23	-0.03	23	-0.01	38	0.01	38	0.00
Runoff coefficient	31	0.01	31	0.00	21	0.03	21	0.01
Density of saturated zone	28	-0.02	28	-0.01	34	-0.01	34	0.00
Saturated zone total porosity	34	0.00	34	0.00	19	-0.03	19	-0.01
Saturated zone effective porosity	11	0.05	11	0.02	13	-0.04	13	-0.02
Saturated zone hydraulic conductivity	41	0.00	41	0.00	30	0.01	30	0.00
Saturated zone hydraulic gradient	6	0.12	6	0.04	31	0.01	31	0.00
Well pump intake depth	7	0.07	7	0.02	33	-0.01	33	0.00
Mass loading for inhalation	29	0.01	29	0.01	26	0.02	26	0.01
Depth of soil mixing layer	39	0.00	39	0.00	10	-0.06	10	-0.02
Depth of roots	3	-0.59	3	-0.25	3	-0.57	3	-0.25
Weathering removal constant of all vegetation	10	-0.05	10	-0.02	11	-0.05	11	-0.02
Wet weight crop yield of fruit, grain and non-leafy vegetables	37	0.00	37	0.00	7	-0.06	7	-0.02
Wet foliar interception fraction of leafy vegetables	21	0.03	21	0.01	39	0.00	39	0.00
Indoor dust filtration factor	27	-0.02	27	-0.01	8	-0.06	8	-0.02
External gamma shielding factor	2	0.85	2	0.57	1	0.90	1	0.72
Cover erosion rate	26	-0.02	26	-0.01	36	-0.01	36	0.00
Total Porosity of Unsaturated zone 1	22	0.03	22	0.01	28	-0.01	28	-0.01
Effective Porosity of Unsaturated zone 1	14	0.04	14	0.01	16	0.03	16	0.01
Hydraulic Conductivity of Unsaturated zone 1	20	-0.03	20	-0.01	37	-0.01	37	0.00
b Parameter of Unsaturated zone 1	40	0.00	40	0.00	18	0.03	18	0.01
Plant transfer factor for Co	32	0.01	32	0.00	41	0.00	41	0.00
Meat transfer factor for Co	30	-0.01	30	0.00	17	0.03	17	0.01
Milk transfer factor for Co	13	-0.04	13	-0.01	23	0.02	23	0.01
Plant transfer factor for Cs	1	0.89	1	0.70	2	0.82	2	0.52
Meat transfer factor for Cs	5	0.20	5	0.07	5	0.16	5	0.06
Milk transfer factor for Cs	4	0.34	4	0.13	4	0.29	4	0.11
Plant transfer factor for Ni	38	0.00	38	0.00	22	-0.02	22	-0.01
Meat transfer factor for Ni	33	-0.01	33	0.00	35	0.01	35	0.00
Milk transfer factor for Ni	24	-0.03	24	-0.01	9	0.06	9	0.02
Plant transfer factor for Sr	12	-0.04	12	-0.02	20	-0.03	20	-0.01
Meat transfer factor for Sr	35	0.00	35	0.00	25	-0.02	25	-0.01
Milk transfer factor for Sr	15	-0.04	15	-0.01	24	-0.02	24	-0.01
Density of contaminated zone	9	-0.06	9	-0.02	12	0.05	12	0.02
Density of Unsaturated zone 1	19	-0.04	19	-0.01	15	0.03	15	0.01
R-SQUARE		0.88		0.88		0.87		0.87

-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.

Title : RESRAD Default

Input File : ZION SOIL SENSITIVITY.RAD

Coefficients for peak All Pathways Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	3		3		3		3	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Density of cover material	39	0.00	39	0.00	8	0.05	8	0.02
Contaminated zone erosion rate	20	0.02	20	0.01	14	0.04	14	0.01
Contaminated zone total porosity	19	0.03	19	0.01	15	0.04	15	0.01
Contaminated zone hydraulic conductivity	35	-0.01	35	0.00	37	0.00	37	0.00
Contaminated zone b parameter	28	-0.02	28	-0.01	35	0.01	35	0.00
Evapotranspiration coefficient	9	-0.05	9	-0.02	26	0.01	26	0.01
Wind Speed	18	-0.03	18	-0.01	23	-0.02	23	-0.01
Runoff coefficient	34	-0.01	34	0.00	18	0.03	18	0.01
Density of saturated zone	6	0.06	6	0.02	31	0.01	31	0.00
Saturated zone total porosity	41	0.00	41	0.00	6	0.08	6	0.03
Saturated zone effective porosity	40	0.00	40	0.00	30	0.01	30	0.00
Saturated zone hydraulic conductivity	15	-0.03	15	-0.01	10	-0.04	10	-0.01
Saturated zone hydraulic gradient	26	0.02	26	0.01	33	-0.01	33	0.00
Well pump intake depth	31	-0.01	31	0.00	20	-0.02	20	-0.01
Mass loading for inhalation	7	-0.05	7	-0.02	21	-0.02	21	-0.01
Depth of soil mixing layer	17	-0.03	17	-0.01	11	-0.04	11	-0.01
Depth of roots	3	-0.59	3	-0.24	3	-0.60	3	-0.26
Weathering removal constant of all vegetation	23	-0.02	23	-0.01	28	-0.01	28	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	13	-0.03	13	-0.01	22	0.02	22	0.01
Wet foliar interception fraction of leafy vegetables	8	0.05	8	0.02	36	0.01	36	0.00
Indoor dust filtration factor	22	-0.02	22	-0.01	34	0.01	34	0.00
External gamma shielding factor	2	0.83	2	0.50	1	0.90	1	0.71
Cover erosion rate	21	-0.02	21	-0.01	32	0.01	32	0.00
Total Porosity of Unsaturated zone 1	38	-0.01	38	0.00	41	0.00	41	0.00
Effective Porosity of Unsaturated zone 1	27	0.02	27	0.01	27	0.01	27	0.01
Hydraulic Conductivity of Unsaturated zone 1	16	0.03	16	0.01	12	-0.04	12	-0.01
b Parameter of Unsaturated zone 1	25	0.02	25	0.01	29	0.01	29	0.00
Plant transfer factor for Co	29	0.02	29	0.01	25	0.02	25	0.01
Meat transfer factor for Co	12	-0.03	12	-0.01	17	0.03	17	0.01
Milk transfer factor for Co	11	0.04	11	0.01	24	-0.02	24	-0.01
Plant transfer factor for Cs	1	0.91	1	0.74	2	0.83	2	0.51
Meat transfer factor for Cs	5	0.23	5	0.08	5	0.29	5	0.11
Milk transfer factor for Cs	4	0.33	4	0.12	4	0.35	4	0.13
Plant transfer factor for Ni	14	0.03	14	0.01	16	0.03	16	0.01
Meat transfer factor for Ni	33	-0.01	33	0.00	13	-0.04	13	-0.01
Milk transfer factor for Ni	30	-0.02	30	-0.01	9	-0.05	9	-0.02
Plant transfer factor for Sr	32	-0.01	32	0.00	38	0.00	38	0.00
Meat transfer factor for Sr	24	0.02	24	0.01	39	0.00	39	0.00
Milk transfer factor for Sr	10	-0.04	10	-0.01	19	0.03	19	0.01
Density of contaminated zone	37	-0.01	37	0.00	40	0.00	40	0.00
Density of Unsaturated zone 1	36	-0.01	36	0.00	7	0.05	7	0.02
R-SQUARE		0.89		0.89		0.88		0.88

-Rank is set to zero if the dose is zero or the correlation matrix is singular.

-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.