

Probabilistic results summary : RESRAD Default

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Table of Contents

Part VI: Uncertainty Analysis

RESRAD Uncertainty Analysis Results

Probabilistic Input .....	2
Total Dose .....	3
Total Risk .....	4
Dose vs Pathway: Ground External .....	5
Dose vs Pathway: Inhalation (w/o Radon) .....	6
Dose vs Pathway: Radon (Water Ind.) .....	7
Dose vs Pathway: Plant (Water Ind.) .....	8
Dose vs Pathway: Meat (Water Ind.) .....	9
Dose vs Pathway: Milk (Water Ind.) .....	10
Dose vs Pathway: Soil Ingestion .....	11
Dose vs Pathway: Water Ingestion .....	12
Dose vs Pathway: Fish Ingestion .....	13
Dose vs Pathway: Radon (Water Dep.) .....	14
Dose vs Pathway: Plant (Water Dep.) .....	15
Dose vs Pathway: Meat (Water Dep.) .....	16
Dose vs Pathway: Milk (Water Dep.) .....	17
Cumulative Probability Summary.....	18
Summary of dose at graphical times, reptition 1.....	19
Summary of dose at graphical times, reptition 2.....	20
Summary of dose at graphical times, reptition 3.....	21
Peak of the mean dose at graphical times.....	22
Correlation and Regression coefficients (if any).....	23

Probabilistic results summary : RESRAD Default

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## Probabilistic Input

Number of Sample Runs: 3000

Number	Name	Distribution	Parameters								
1	VCV	CONTINUOUS LOGARITHMIC4	5.E-8	0	.0007	.22	.005	.95	.2	1	
2	DENSCZ	TRUNCATED NORMAL	1.52	.23	.001	.999					
3	VCZ	CONTINUOUS LOGARITHMIC4	5.E-8	0	.0007	.22	.005	.95	.2	1	
4	TPCZ	TRUNCATED NORMAL	.425	.0867	.001	.999					
5	HCCZ	LOGUNIFORM	786	17000							
6	BCZ	BOUNDED LOGNORMAL-N	1.06	.66	.5	30					
7	EVAPTR	UNIFORM	.5	.75							
8	WIND	BOUNDED LOGNORMAL-N	1.445	.2419	1.4	13					
9	RUNOFF	UNIFORM	.1	.8							
10	DENSAQ	TRUNCATED NORMAL	1.51	.16	.001	.999					
11	TPSZ	TRUNCATED NORMAL	.43	.06	.001	.999					
12	EPSZ	TRUNCATED NORMAL	.383	.061	.001	.999					
13	HCSZ	LOGUNIFORM	786	17000							
14	HGWT	BOUNDED LOGNORMAL-N	-5.11	1.77	.00007	.5					
15	DWIBWT	TRIANGULAR	6	10	30						
16	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119
17	SHF3	UNIFORM	.15	.95							
18	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1					
19	DM	TRIANGULAR	0	.15	.6						
20	DROOT	UNIFORM	.3	4							
21	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999					
22	WLAM	TRIANGULAR	5.1	18	84						
23	RWET(2)	TRIANGULAR	.06	.67	.95						
24	BRTF(27,1)	LOGNORMAL-N	-2.53	.916291							
25	BRTF(27,2)	LOGNORMAL-N	-3.51	1.029619							
26	BRTF(27,3)	LOGNORMAL-N	-6.21	.7							
27	BRTF(55,1)	LOGNORMAL-N	-3.22	.993252							
28	BRTF(55,2)	LOGNORMAL-N	-3	.405465							
29	BRTF(55,3)	LOGNORMAL-N	-4.61	.47							
30	BRTF(63,1)	LOGNORMAL-N	-6.21	1.098612							
31	BRTF(63,2)	LOGNORMAL-N	-6.21	1.029619							
32	BRTF(63,3)	LOGNORMAL-N	-9.72	.91629							
33	BRTF(1,1)	LOGNORMAL-N	1.57	1.098612							
34	BRTF(1,2)	LOGNORMAL-N	-4.42	1							
35	BRTF(1,3)	LOGNORMAL-N	-4.6	.9							
36	BRTF(28,1)	LOGNORMAL-N	-3	.916291							
37	BRTF(28,2)	LOGNORMAL-N	-5.3	.916291							
38	BRTF(28,3)	LOGNORMAL-N	-3.91	.69315							
39	BRTF(38,1)	LOGNORMAL-N	-1.2	.993252							
40	BRTF(38,2)	LOGNORMAL-N	-4.61	.405465							
41	BRTF(38,3)	LOGNORMAL-N	-6.21	.47							

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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-137										
Min	0.00E+00	7.42E-01	7.42E-01	5.88E-01	3.69E-01	7.26E-02	1.93E-05	2.93E-13	0.00E+00	0.00E+00
Max	6.69E+01	5.34E+00	3.14E+00	3.06E+00	2.92E+00	3.70E+00	3.22E+00	7.69E-01	1.34E-02	1.26E-09
Avg	2.44E-01	1.25E+00	1.25E+00	1.21E+00	1.15E+00	9.45E-01	4.31E-01	9.79E-02	7.61E-04	5.55E-11
Std	2.90E+00	2.96E-01	2.76E-01	2.69E-01	2.60E-01	2.41E-01	1.79E-01	5.80E-02	6.33E-04	7.47E-11
ΣALL										
Min	0.00E+00	7.42E-01	7.42E-01	5.88E-01	3.69E-01	7.26E-02	1.93E-05	2.93E-13	0.00E+00	0.00E+00
Max	6.69E+01	5.34E+00	3.14E+00	3.06E+00	2.92E+00	3.70E+00	3.22E+00	7.69E-01	1.34E-02	1.26E-09
Avg	2.44E-01	1.25E+00	1.25E+00	1.21E+00	1.15E+00	9.45E-01	4.31E-01	9.79E-02	7.61E-04	5.55E-11
Std	2.90E+00	2.96E-01	2.76E-01	2.69E-01	2.60E-01	2.41E-01	1.79E-01	5.80E-02	6.33E-04	7.47E-11

ΣALL is total dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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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-137									
Min		1.49E-05	1.30E-05	8.17E-06	1.61E-06	4.60E-10	7.51E-18	0.00E+00	0.00E+00
Max		6.91E-05	6.74E-05	6.42E-05	7.95E-05	7.23E-05	1.72E-05	3.01E-07	2.85E-14
Avg		2.62E-05	2.54E-05	2.40E-05	1.98E-05	9.06E-06	2.06E-06	1.61E-08	1.20E-15
Std		6.27E-06	6.11E-06	5.87E-06	5.36E-06	3.93E-06	1.28E-06	1.39E-08	1.65E-15
ΣALL									
Min		1.49E-05	1.30E-05	8.17E-06	1.61E-06	4.60E-10	7.51E-18	0.00E+00	0.00E+00
Max		6.91E-05	6.74E-05	6.42E-05	7.95E-05	7.23E-05	1.72E-05	3.01E-07	2.85E-14
Avg		2.62E-05	2.54E-05	2.40E-05	1.98E-05	9.06E-06	2.06E-06	1.61E-08	1.20E-15
Std		6.27E-06	6.11E-06	5.87E-06	5.36E-06	3.93E-06	1.28E-06	1.39E-08	1.65E-15

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-137									
Min		2.57E-23	2.37E-23	1.41E-23	2.33E-24	9.01E-28	0.00E+00	0.00E+00	0.00E+00
Max		2.98E-22	4.16E-21	1.10E-18	3.23E-10	5.45E-01	2.16E-01	1.98E-03	1.45E-10
Avg		5.58E-23	7.06E-23	1.78E-21	1.87E-13	3.61E-03	1.72E-03	2.16E-05	5.46E-12
Std		2.34E-23	1.71E-22	2.98E-20	6.30E-12	3.57E-02	1.28E-02	1.35E-04	1.74E-11
ΣALL									
Min		2.57E-23	2.37E-23	1.41E-23	2.33E-24	9.01E-28	0.00E+00	0.00E+00	0.00E+00
Max		2.98E-22	4.16E-21	1.10E-18	3.23E-10	5.45E-01	2.16E-01	1.98E-03	1.45E-10
Avg		5.58E-23	7.06E-23	1.78E-21	1.87E-13	3.61E-03	1.72E-03	2.16E-05	5.46E-12
Std		2.34E-23	1.71E-22	2.98E-20	6.30E-12	3.57E-02	1.28E-02	1.35E-04	1.74E-11

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-137									
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	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.05E-07	1.05E-07	8.45E-10	6.47E-17	
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-09	6.17E-10	6.95E-12	1.82E-18	
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.49E-08	5.03E-09	4.74E-11	6.36E-18	
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	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.05E-07	1.05E-07	8.45E-10	6.47E-17	
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.40E-09	6.17E-10	6.95E-12	1.82E-18	
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.49E-08	5.03E-09	4.74E-11	6.36E-18	

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-137									
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

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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-137									
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		3.98E-01	3.84E-01	3.59E-01	6.97E-01	6.32E-01	1.50E-01	1.86E-03	3.08E-10
Avg		2.65E-03	2.66E-03	2.70E-03	3.09E-03	3.58E-03	1.33E-03	1.78E-05	4.06E-12
Std		1.51E-02	1.49E-02	1.51E-02	2.03E-02	2.48E-02	8.44E-03	8.40E-05	1.30E-11
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		3.98E-01	3.84E-01	3.59E-01	6.97E-01	6.32E-01	1.50E-01	1.86E-03	3.08E-10
Avg		2.65E-03	2.66E-03	2.70E-03	3.09E-03	3.58E-03	1.33E-03	1.78E-05	4.06E-12
Std		1.51E-02	1.49E-02	1.51E-02	2.03E-02	2.48E-02	8.44E-03	8.40E-05	1.30E-11

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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-137									
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	0.00E+00
Max	4.16E-01	4.02E-01	3.75E-01	5.38E-01	6.12E-01	1.62E-01	2.61E-03	2.25E-10	
Avg	2.00E-03	2.01E-03	2.04E-03	2.37E-03	3.18E-03	1.17E-03	1.52E-05	3.48E-12	
Std	1.30E-02	1.27E-02	1.28E-02	1.66E-02	2.38E-02	7.90E-03	8.20E-05	1.12E-11	
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	0.00E+00
Max	4.16E-01	4.02E-01	3.75E-01	5.38E-01	6.12E-01	1.62E-01	2.61E-03	2.25E-10	
Avg	2.00E-03	2.01E-03	2.04E-03	2.37E-03	3.18E-03	1.17E-03	1.52E-05	3.48E-12	
Std	1.30E-02	1.27E-02	1.28E-02	1.66E-02	2.38E-02	7.90E-03	8.20E-05	1.12E-11	

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File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\BFM SENSITIVITY ANALYSIS\INPUT FILES\ZION BFM SENSITIVITY.RAD

## 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-137									
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		6.25E-01	6.11E-01	5.84E-01	1.22E+00	1.15E+00	3.00E-01	5.74E-03	5.29E-10
Avg		3.21E-03	3.23E-03	3.28E-03	3.78E-03	4.72E-03	1.87E-03	2.48E-05	5.66E-12
Std		2.03E-02	2.01E-02	2.09E-02	2.99E-02	3.71E-02	1.34E-02	1.56E-04	2.13E-11
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		6.25E-01	6.11E-01	5.84E-01	1.22E+00	1.15E+00	3.00E-01	5.74E-03	5.29E-10
Avg		3.21E-03	3.23E-03	3.28E-03	3.78E-03	4.72E-03	1.87E-03	2.48E-05	5.66E-12
Std		2.03E-02	2.01E-02	2.09E-02	2.99E-02	3.71E-02	1.34E-02	1.56E-04	2.13E-11

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File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\BFM SENSITIVITY ANALYSIS\INPUT FILES\ZION BFM SENSITIVITY.RAD

## 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-137									
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	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.74E-04	6.90E-05	6.71E-07	6.17E-14	
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.64E-06	1.15E-06	1.38E-08	3.78E-15	
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.50E-05	8.09E-06	8.25E-08	1.12E-14	
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	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.74E-04	6.90E-05	6.71E-07	6.17E-14	
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.64E-06	1.15E-06	1.38E-08	3.78E-15	
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.50E-05	8.09E-06	8.25E-08	1.12E-14	

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File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\BFM SENSITIVITY ANALYSIS\INPUT FILES\ZION BFM SENSITIVITY.RAD

## 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-137									
Min		4.62E-01	3.40E-01	1.85E-01	2.18E-02	1.97E-06	2.50E-14	0.00E+00	0.00E+00
Max		5.24E-01	5.12E-01	4.88E-01	4.15E-01	2.05E-01	5.17E-02	5.07E-04	4.74E-11
Avg		5.20E-01	5.05E-01	4.77E-01	3.93E-01	1.75E-01	3.85E-02	2.86E-04	1.54E-11
Std		3.80E-03	1.11E-02	2.25E-02	4.32E-02	4.33E-02	1.47E-02	1.70E-04	1.44E-11
ΣALL									
Min		4.62E-01	3.40E-01	1.85E-01	2.18E-02	1.97E-06	2.50E-14	0.00E+00	0.00E+00
Max		5.24E-01	5.12E-01	4.88E-01	4.15E-01	2.05E-01	5.17E-02	5.07E-04	4.74E-11
Avg		5.20E-01	5.05E-01	4.77E-01	3.93E-01	1.75E-01	3.85E-02	2.86E-04	1.54E-11
Std		3.80E-03	1.11E-02	2.25E-02	4.32E-02	4.33E-02	1.47E-02	1.70E-04	1.44E-11

ΣALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\BFM SENSITIVITY ANALYSIS\INPUT FILES\ZION BFM 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-137									
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\BFM SENSITIVITY ANALYSIS\INPUT FILES\ZION BFM 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-137									
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\BFM SENSITIVITY ANALYSIS\INPUT FILES\ZION BFM 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-137									
Min		8.23E-03	8.01E-03	7.59E-03	1.65E-03	2.00E-07	2.54E-15	0.00E+00	0.00E+00
Max		2.53E-01	2.47E-01	2.36E-01	2.00E-01	9.86E-02	2.47E-02	2.37E-04	2.04E-11
Avg		4.85E-02	4.71E-02	4.45E-02	3.66E-02	1.63E-02	3.59E-03	2.66E-05	1.44E-12
Std		2.81E-02	2.73E-02	2.59E-02	2.17E-02	1.05E-02	2.61E-03	2.37E-05	1.74E-12
ΣALL									
Min		8.23E-03	8.01E-03	7.59E-03	1.65E-03	2.00E-07	2.54E-15	0.00E+00	0.00E+00
Max		2.53E-01	2.47E-01	2.36E-01	2.00E-01	9.86E-02	2.47E-02	2.37E-04	2.04E-11
Avg		4.85E-02	4.71E-02	4.45E-02	3.66E-02	1.63E-02	3.59E-03	2.66E-05	1.44E-12
Std		2.81E-02	2.73E-02	2.59E-02	2.17E-02	1.05E-02	2.61E-03	2.37E-05	1.74E-12

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-137									
Min		6.10E-02	5.96E-02	5.69E-02	6.89E-03	6.22E-07	7.90E-15	0.00E+00	0.00E+00
Max		1.25E+00	1.22E+00	1.17E+00	9.90E-01	4.86E-01	1.21E-01	1.13E-03	9.05E-11
Avg		3.08E-01	2.99E-01	2.83E-01	2.32E-01	1.03E-01	2.28E-02	1.69E-04	9.19E-12
Std		1.37E-01	1.34E-01	1.27E-01	1.08E-01	5.46E-02	1.42E-02	1.37E-04	1.05E-11
ΣALL									
Min		6.10E-02	5.96E-02	5.69E-02	6.89E-03	6.22E-07	7.90E-15	0.00E+00	0.00E+00
Max		1.25E+00	1.22E+00	1.17E+00	9.90E-01	4.86E-01	1.21E-01	1.13E-03	9.05E-11
Avg		3.08E-01	2.99E-01	2.83E-01	2.32E-01	1.03E-01	2.28E-02	1.69E-04	9.19E-12
Std		1.37E-01	1.34E-01	1.27E-01	1.08E-01	5.46E-02	1.42E-02	1.37E-04	1.05E-11

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-137									
Min		6.51E-02	6.36E-02	5.78E-02	6.82E-03	6.16E-07	7.82E-15	0.00E+00	0.00E+00
Max		2.10E+00	2.05E+00	1.94E+00	1.63E+00	7.47E-01	1.67E-01	1.37E-03	1.06E-10
Avg		3.63E-01	3.53E-01	3.33E-01	2.74E-01	1.22E-01	2.69E-02	2.00E-04	1.08E-11
Std		2.01E-01	1.96E-01	1.86E-01	1.56E-01	7.68E-02	1.93E-02	1.77E-04	1.32E-11
ΣALL									
Min		6.51E-02	6.36E-02	5.78E-02	6.82E-03	6.16E-07	7.82E-15	0.00E+00	0.00E+00
Max		2.10E+00	2.05E+00	1.94E+00	1.63E+00	7.47E-01	1.67E-01	1.37E-03	1.06E-10
Avg		3.63E-01	3.53E-01	3.33E-01	2.74E-01	1.22E-01	2.69E-02	2.00E-04	1.08E-11
Std		2.01E-01	1.96E-01	1.86E-01	1.56E-01	7.68E-02	1.93E-02	1.77E-04	1.32E-11

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	8.65E-01	8.39E-01	7.81E-01	5.78E-01	8.18E-02	1.50E-03	1.29E-09	0.00E+00
0.050	9.01E-01	8.74E-01	8.19E-01	6.48E-01	1.60E-01	8.58E-03	2.58E-07	2.43E-23
0.075	9.26E-01	9.02E-01	8.45E-01	6.79E-01	2.11E-01	1.88E-02	3.91E-06	3.82E-19
0.100	9.50E-01	9.22E-01	8.67E-01	7.04E-01	2.54E-01	2.81E-02	1.39E-05	3.03E-17
0.125	9.67E-01	9.41E-01	8.87E-01	7.24E-01	2.87E-01	3.75E-02	3.88E-05	1.08E-15
0.150	9.90E-01	9.62E-01	9.04E-01	7.38E-01	3.07E-01	4.80E-02	7.81E-05	9.22E-15
0.175	1.01E+00	9.78E-01	9.23E-01	7.53E-01	3.24E-01	5.57E-02	1.23E-04	5.92E-14
0.200	1.02E+00	9.96E-01	9.38E-01	7.66E-01	3.33E-01	6.28E-02	1.87E-04	2.58E-13
0.225	1.04E+00	1.01E+00	9.54E-01	7.82E-01	3.44E-01	6.84E-02	2.46E-04	6.42E-13
0.250	1.06E+00	1.02E+00	9.65E-01	7.95E-01	3.52E-01	7.40E-02	3.24E-04	1.56E-12
0.275	1.07E+00	1.04E+00	9.80E-01	8.06E-01	3.59E-01	7.76E-02	3.81E-04	2.78E-12
0.300	1.09E+00	1.05E+00	9.94E-01	8.15E-01	3.68E-01	8.08E-02	4.45E-04	4.84E-12
0.325	1.10E+00	1.07E+00	1.01E+00	8.28E-01	3.75E-01	8.35E-02	4.93E-04	7.19E-12
0.350	1.11E+00	1.08E+00	1.02E+00	8.40E-01	3.81E-01	8.56E-02	5.44E-04	1.05E-11
0.375	1.13E+00	1.09E+00	1.04E+00	8.53E-01	3.88E-01	8.76E-02	5.94E-04	1.38E-11
0.400	1.14E+00	1.10E+00	1.05E+00	8.65E-01	3.94E-01	8.99E-02	6.44E-04	1.74E-11
0.425	1.15E+00	1.12E+00	1.06E+00	8.78E-01	4.02E-01	9.19E-02	6.80E-04	2.15E-11
0.450	1.17E+00	1.13E+00	1.07E+00	8.88E-01	4.09E-01	9.35E-02	7.19E-04	2.65E-11
0.475	1.19E+00	1.15E+00	1.09E+00	8.98E-01	4.16E-01	9.55E-02	7.52E-04	3.20E-11
0.500	1.20E+00	1.17E+00	1.10E+00	9.11E-01	4.23E-01	9.77E-02	7.82E-04	3.77E-11
0.525	1.21E+00	1.18E+00	1.12E+00	9.23E-01	4.29E-01	9.96E-02	8.11E-04	4.23E-11
0.550	1.23E+00	1.19E+00	1.13E+00	9.38E-01	4.35E-01	1.02E-01	8.40E-04	4.64E-11
0.575	1.24E+00	1.21E+00	1.14E+00	9.50E-01	4.41E-01	1.04E-01	8.65E-04	5.10E-11
0.600	1.26E+00	1.22E+00	1.16E+00	9.62E-01	4.49E-01	1.06E-01	8.86E-04	5.45E-11
0.625	1.28E+00	1.24E+00	1.17E+00	9.74E-01	4.56E-01	1.08E-01	9.12E-04	5.87E-11
0.650	1.30E+00	1.26E+00	1.19E+00	9.87E-01	4.65E-01	1.10E-01	9.43E-04	6.41E-11
0.675	1.32E+00	1.28E+00	1.21E+00	1.01E+00	4.73E-01	1.13E-01	9.76E-04	6.79E-11
0.700	1.34E+00	1.30E+00	1.23E+00	1.02E+00	4.81E-01	1.15E-01	9.98E-04	7.22E-11
0.725	1.36E+00	1.32E+00	1.25E+00	1.04E+00	4.91E-01	1.17E-01	1.03E-03	7.66E-11
0.750	1.39E+00	1.35E+00	1.28E+00	1.07E+00	5.03E-01	1.20E-01	1.06E-03	8.09E-11
0.775	1.41E+00	1.38E+00	1.30E+00	1.09E+00	5.16E-01	1.24E-01	1.09E-03	8.56E-11
0.800	1.45E+00	1.40E+00	1.33E+00	1.11E+00	5.26E-01	1.26E-01	1.11E-03	9.07E-11
0.825	1.48E+00	1.44E+00	1.36E+00	1.14E+00	5.41E-01	1.30E-01	1.15E-03	9.70E-11
0.850	1.51E+00	1.47E+00	1.39E+00	1.17E+00	5.57E-01	1.34E-01	1.20E-03	1.05E-10
0.875	1.55E+00	1.51E+00	1.43E+00	1.20E+00	5.75E-01	1.39E-01	1.25E-03	1.18E-10
0.900	1.60E+00	1.55E+00	1.47E+00	1.23E+00	5.97E-01	1.46E-01	1.33E-03	1.33E-10
0.925	1.66E+00	1.62E+00	1.54E+00	1.29E+00	6.23E-01	1.52E-01	1.42E-03	1.51E-10
0.950	1.76E+00	1.70E+00	1.62E+00	1.35E+00	6.72E-01	1.66E-01	1.58E-03	1.85E-10
0.975	1.92E+00	1.86E+00	1.77E+00	1.49E+00	7.93E-01	2.03E-01	1.97E-03	2.34E-10
1.000	3.14E+00	3.06E+00	2.92E+00	3.70E+00	3.22E+00	7.69E-01	1.34E-02	1.26E-09

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\BFM SENSITIVITY ANALYSIS\INPUT FILES\ZION BFM SENSITIVITY.RAD

## Summary of dose at graphical times, reptition 1

Time Years	Dose statistics at graphical times, mrem/yr							
	Minimum	Maximum	Mean	Median	90%	95%	97.5%	99%
0.00E+00	7.54E-01	2.64E+00	1.25E+00	1.19E+00	1.60E+00	1.77E+00	1.92E+00	2.14E+00
1.00E+00	6.11E-01	2.58E+00	1.21E+00	1.16E+00	1.55E+00	1.72E+00	1.87E+00	2.09E+00
1.30E+00	5.76E-01	2.56E+00	1.20E+00	1.15E+00	1.54E+00	1.71E+00	1.86E+00	2.08E+00
1.70E+00	5.33E-01	2.54E+00	1.19E+00	1.13E+00	1.52E+00	1.69E+00	1.83E+00	2.06E+00
2.22E+00	4.80E-01	2.50E+00	1.17E+00	1.12E+00	1.50E+00	1.66E+00	1.80E+00	2.03E+00
2.89E+00	4.17E-01	2.46E+00	1.15E+00	1.10E+00	1.47E+00	1.64E+00	1.75E+00	2.00E+00
3.00E+00	4.08E-01	2.46E+00	1.14E+00	1.09E+00	1.47E+00	1.63E+00	1.75E+00	2.00E+00
3.78E+00	3.46E-01	2.41E+00	1.12E+00	1.07E+00	1.44E+00	1.60E+00	1.71E+00	1.96E+00
4.92E+00	2.68E-01	2.34E+00	1.08E+00	1.03E+00	1.40E+00	1.55E+00	1.65E+00	1.91E+00
6.42E+00	1.90E-01	2.26E+00	1.04E+00	9.95E-01	1.35E+00	1.50E+00	1.59E+00	1.84E+00
8.38E+00	1.19E-01	2.16E+00	9.85E-01	9.45E-01	1.28E+00	1.43E+00	1.52E+00	1.76E+00
1.00E+01	7.99E-02	2.07E+00	9.42E-01	9.04E-01	1.23E+00	1.37E+00	1.46E+00	1.70E+00
1.09E+01	6.33E-02	2.03E+00	9.18E-01	8.82E-01	1.20E+00	1.34E+00	1.45E+00	1.66E+00
1.43E+01	2.71E-02	2.09E+00	8.40E-01	8.13E-01	1.11E+00	1.24E+00	1.33E+00	1.56E+00
1.86E+01	8.62E-03	2.23E+00	7.50E-01	7.29E-01	1.01E+00	1.12E+00	1.23E+00	1.43E+00
2.42E+01	1.86E-03	2.78E+00	6.48E-01	6.33E-01	8.77E-01	9.86E-01	1.10E+00	1.28E+00
3.16E+01	2.70E-04	2.32E+00	5.37E-01	5.27E-01	7.38E-01	8.39E-01	9.73E-01	1.14E+00
4.05E+01	2.29E-05	1.87E+00	4.29E-01	4.23E-01	5.99E-01	6.81E-01	7.93E-01	9.47E-01
4.12E+01	1.82E-05	1.83E+00	4.21E-01	4.15E-01	5.88E-01	6.69E-01	7.79E-01	9.67E-01
5.38E+01	3.94E-07	2.08E+00	3.07E-01	3.03E-01	4.37E-01	4.93E-01	5.82E-01	7.28E-01
7.02E+01	2.65E-09	1.39E+00	2.04E-01	2.02E-01	2.97E-01	3.33E-01	3.99E-01	5.31E-01
9.15E+01	3.90E-12	8.19E-01	1.20E-01	1.20E-01	1.78E-01	2.04E-01	2.46E-01	3.37E-01
1.00E+02	2.93E-13	7.64E-01	9.80E-02	9.77E-02	1.46E-01	1.67E-01	2.03E-01	3.15E-01
1.19E+02	7.89E-16	6.76E-01	6.11E-02	6.11E-02	9.26E-02	1.06E-01	1.34E-01	2.04E-01
1.56E+02	1.20E-20	3.85E-01	2.52E-02	2.52E-02	3.96E-02	4.58E-02	5.56E-02	9.49E-02
1.03E+02	6.21E-27	1.28E-01	7.97E-03	8.07E-03	1.30E-02	1.49E-02	1.87E-02	2.89E-02
2.65E+02	0.00E+00	3.03E-02	1.79E-03	1.83E-03	3.04E-03	3.61E-03	4.56E-03	6.63E-03
3.00E+02	0.00E+00	1.34E-02	7.70E-04	7.80E-04	1.33E-03	1.58E-03	2.00E-03	2.90E-03
3.46E+02	0.00E+00	4.62E-03	2.59E-04	2.60E-04	4.58E-04	5.48E-04	6.89E-04	9.91E-04
4.51E+02	0.00E+00	3.99E-04	2.13E-05	2.08E-05	3.95E-05	4.75E-05	5.99E-05	8.41E-05
5.88E+02	0.00E+00	1.63E-05	8.30E-07	7.59E-07	1.62E-06	1.98E-06	2.47E-06	3.84E-06
7.67E+02	0.00E+00	2.53E-07	1.28E-08	1.06E-08	2.71E-08	3.45E-08	4.49E-08	5.74E-08
1.00E+03	0.00E+00	1.26E-09	5.69E-11	3.94E-11	1.30E-10	1.73E-10	2.23E-10	3.13E-10

Probabilistic results summary : RESRAD Default

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## Summary of dose at graphical times, reptition 2

Time Years	Dose statistics at graphical times, mrem/yr							
	Minimum	Maximum	Mean	Median	90%	95%	97.5%	99%
0.00E+00	7.57E-01	2.98E+00	1.25E+00	1.20E+00	1.60E+00	1.74E+00	1.91E+00	2.15E+00
1.00E+00	7.40E-01	2.90E+00	1.21E+00	1.17E+00	1.55E+00	1.69E+00	1.86E+00	2.10E+00
1.30E+00	7.17E-01	2.88E+00	1.20E+00	1.16E+00	1.53E+00	1.68E+00	1.84E+00	2.08E+00
1.70E+00	6.52E-01	2.85E+00	1.19E+00	1.14E+00	1.51E+00	1.65E+00	1.83E+00	2.06E+00
2.22E+00	5.75E-01	2.82E+00	1.17E+00	1.13E+00	1.49E+00	1.63E+00	1.80E+00	2.04E+00
2.89E+00	4.88E-01	2.77E+00	1.15E+00	1.11E+00	1.46E+00	1.61E+00	1.77E+00	2.00E+00
3.00E+00	4.76E-01	2.76E+00	1.14E+00	1.10E+00	1.46E+00	1.60E+00	1.77E+00	2.00E+00
3.78E+00	3.95E-01	2.71E+00	1.12E+00	1.08E+00	1.43E+00	1.57E+00	1.74E+00	1.95E+00
4.92E+00	2.99E-01	2.63E+00	1.08E+00	1.05E+00	1.39E+00	1.52E+00	1.69E+00	1.89E+00
6.42E+00	2.08E-01	2.53E+00	1.04E+00	1.01E+00	1.34E+00	1.46E+00	1.62E+00	1.83E+00
8.38E+00	1.23E-01	2.41E+00	9.86E-01	9.52E-01	1.28E+00	1.39E+00	1.55E+00	1.74E+00
1.00E+01	7.88E-02	2.31E+00	9.44E-01	9.13E-01	1.23E+00	1.34E+00	1.47E+00	1.67E+00
1.09E+01	6.12E-02	2.26E+00	9.21E-01	8.90E-01	1.21E+00	1.32E+00	1.44E+00	1.63E+00
1.43E+01	2.47E-02	2.07E+00	8.42E-01	8.19E-01	1.12E+00	1.23E+00	1.33E+00	1.51E+00
1.86E+01	7.58E-03	2.13E+00	7.52E-01	7.33E-01	1.01E+00	1.09E+00	1.20E+00	1.39E+00
2.42E+01	1.62E-03	2.34E+00	6.50E-01	6.36E-01	8.77E-01	9.70E-01	1.10E+00	1.29E+00
3.16E+01	2.17E-04	2.97E+00	5.40E-01	5.28E-01	7.36E-01	8.13E-01	9.56E-01	1.16E+00
4.05E+01	1.93E-05	2.42E+00	4.33E-01	4.24E-01	5.97E-01	6.72E-01	7.99E-01	1.01E+00
4.12E+01	1.57E-05	2.37E+00	4.25E-01	4.16E-01	5.87E-01	6.60E-01	7.90E-01	9.91E-01
5.38E+01	5.13E-07	2.30E+00	3.11E-01	3.04E-01	4.36E-01	4.92E-01	5.89E-01	7.83E-01
7.02E+01	5.91E-09	1.56E+00	2.07E-01	2.03E-01	2.96E-01	3.34E-01	3.96E-01	6.23E-01
9.15E+01	1.75E-11	9.40E-01	1.22E-01	1.21E-01	1.78E-01	2.02E-01	2.54E-01	3.91E-01
1.00E+02	1.74E-12	7.69E-01	9.85E-02	9.78E-02	1.46E-01	1.64E-01	2.06E-01	3.10E-01
1.19E+02	8.82E-15	4.86E-01	6.11E-02	6.07E-02	9.21E-02	1.03E-01	1.32E-01	1.97E-01
1.56E+02	4.40E-19	2.06E-01	2.50E-02	2.53E-02	3.94E-02	4.49E-02	5.63E-02	8.41E-02
1.03E+02	1.08E-24	6.71E-02	7.90E-03	8.08E-03	1.29E-02	1.48E-02	1.80E-02	2.82E-02
2.65E+02	0.00E+00	1.55E-02	1.78E-03	1.83E-03	3.05E-03	3.50E-03	4.83E-03	6.67E-03
3.00E+02	0.00E+00	6.77E-03	7.63E-04	7.80E-04	1.34E-03	1.56E-03	2.10E-03	2.93E-03
3.46E+02	0.00E+00	2.31E-03	2.56E-04	2.60E-04	4.61E-04	5.35E-04	7.26E-04	9.98E-04
4.51E+02	0.00E+00	1.92E-04	2.08E-05	2.01E-05	3.98E-05	4.80E-05	6.72E-05	8.32E-05
5.88E+02	0.00E+00	7.46E-06	8.01E-07	7.30E-07	1.68E-06	1.99E-06	2.76E-06	3.45E-06
7.67E+02	0.00E+00	1.08E-07	1.23E-08	9.62E-09	2.71E-08	3.48E-08	4.76E-08	6.31E-08
1.00E+03	0.00E+00	6.37E-10	5.49E-11	3.42E-11	1.37E-10	1.87E-10	2.28E-10	3.90E-10

Probabilistic results summary : RESRAD Default

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## Summary of dose at graphical times, reptition 3

Time Years	Dose statistics at graphical times, mrem/yr							
	Minimum	Maximum	Mean	Median	90%	95%	97.5%	99%
0.00E+00	7.42E-01	3.14E+00	1.25E+00	1.20E+00	1.60E+00	1.77E+00	1.93E+00	2.18E+00
1.00E+00	5.88E-01	3.06E+00	1.21E+00	1.17E+00	1.56E+00	1.73E+00	1.88E+00	2.12E+00
1.30E+00	5.48E-01	3.04E+00	1.20E+00	1.16E+00	1.54E+00	1.72E+00	1.87E+00	2.11E+00
1.70E+00	5.00E-01	3.01E+00	1.19E+00	1.15E+00	1.53E+00	1.71E+00	1.85E+00	2.09E+00
2.22E+00	4.43E-01	2.97E+00	1.17E+00	1.13E+00	1.50E+00	1.68E+00	1.83E+00	2.06E+00
2.89E+00	3.79E-01	2.92E+00	1.15E+00	1.11E+00	1.47E+00	1.65E+00	1.80E+00	2.03E+00
3.00E+00	3.69E-01	2.92E+00	1.15E+00	1.11E+00	1.47E+00	1.65E+00	1.80E+00	2.03E+00
3.78E+00	3.09E-01	2.86E+00	1.12E+00	1.08E+00	1.44E+00	1.62E+00	1.76E+00	1.99E+00
4.92E+00	2.36E-01	2.79E+00	1.09E+00	1.05E+00	1.40E+00	1.55E+00	1.72E+00	1.94E+00
6.42E+00	1.67E-01	3.09E+00	1.04E+00	1.00E+00	1.35E+00	1.49E+00	1.66E+00	1.87E+00
8.38E+00	1.06E-01	3.44E+00	9.91E-01	9.54E-01	1.28E+00	1.40E+00	1.58E+00	1.80E+00
1.10E+01	7.26E-02	3.70E+00	9.48E-01	9.13E-01	1.24E+00	1.36E+00	1.51E+00	1.72E+00
1.09E+01	5.85E-02	3.84E+00	9.25E-01	8.92E-01	1.21E+00	1.33E+00	1.49E+00	1.68E+00
1.43E+01	2.70E-02	4.27E+00	8.47E-01	8.18E-01	1.12E+00	1.23E+00	1.37E+00	1.58E+00
1.86E+01	9.86E-03	4.91E+00	7.57E-01	7.32E-01	1.01E+00	1.10E+00	1.26E+00	1.49E+00
2.42E+01	2.65E-03	4.77E+00	6.55E-01	6.34E-01	8.78E-01	9.72E-01	1.09E+00	1.35E+00
3.16E+01	4.77E-04	3.99E+00	5.43E-01	5.28E-01	7.35E-01	8.14E-01	9.67E-01	1.25E+00
4.05E+01	6.07E-05	3.22E+00	4.33E-01	4.22E-01	5.96E-01	6.61E-01	8.06E-01	1.07E+00
4.12E+01	5.09E-05	3.16E+00	4.25E-01	4.15E-01	5.84E-01	6.50E-01	7.91E-01	1.10E+00
5.38E+01	2.75E-06	2.33E+00	3.09E-01	3.03E-01	4.34E-01	4.88E-01	6.01E-01	8.60E-01
7.02E+01	6.12E-08	1.57E+00	2.04E-01	2.02E-01	2.95E-01	3.33E-01	4.07E-01	5.61E-01
9.15E+01	4.28E-10	9.37E-01	1.20E-01	1.20E-01	1.76E-01	2.03E-01	2.50E-01	3.46E-01
1.00E+02	5.97E-11	7.63E-01	9.73E-02	9.77E-02	1.45E-01	1.67E-01	2.05E-01	2.86E-01
1.19E+02	6.60E-13	4.77E-01	6.04E-02	6.10E-02	9.22E-02	1.09E-01	1.34E-01	1.82E-01
1.56E+02	1.42E-16	1.98E-01	2.48E-02	2.52E-02	3.92E-02	4.62E-02	5.74E-02	7.66E-02
1.03E+02	0.00E+00	6.30E-02	7.79E-03	8.08E-03	1.28E-02	1.51E-02	1.84E-02	2.49E-02
2.65E+02	0.00E+00	1.41E-02	1.75E-03	1.84E-03	2.98E-03	3.59E-03	4.40E-03	6.02E-03
3.00E+02	0.00E+00	6.04E-03	7.51E-04	7.86E-04	1.32E-03	1.59E-03	1.95E-03	2.57E-03
3.46E+02	0.00E+00	2.01E-03	2.52E-04	2.63E-04	4.51E-04	5.51E-04	6.84E-04	9.51E-04
4.51E+02	0.00E+00	1.58E-04	2.06E-05	2.06E-05	3.95E-05	4.93E-05	6.12E-05	8.22E-05
5.88E+02	0.00E+00	5.70E-06	8.01E-07	7.57E-07	1.59E-06	2.13E-06	2.75E-06	3.65E-06
7.67E+02	0.00E+00	1.10E-07	1.23E-08	1.04E-08	2.65E-08	3.75E-08	5.22E-08	6.62E-08
1.00E+03	0.00E+00	4.99E-10	5.48E-11	3.81E-11	1.29E-10	1.91E-10	2.55E-10	3.25E-10

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	Peak mean dose
	Years	mrem/yr
1	0.000E+00	1.246E+00
2	0.000E+00	1.248E+00
3	0.000E+00	1.250E+00

Title : RESRAD Default  
 Input File : ZION BFM SENSITIVITY.RAD

## Coefficients for peak All Pathways Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Cover erosion rate	4	0.41	4	0.14	13	0.05	13	0.02
Density of contaminated zone	18	-0.03	18	-0.01	22	-0.03	22	-0.01
Contaminated zone erosion rate	14	0.05	14	0.01	11	0.06	11	0.02
Contaminated zone total porosity	15	-0.04	15	-0.01	27	-0.02	27	-0.01
Contaminated zone hydraulic conductivity	26	0.02	26	0.01	18	0.04	18	0.01
Contaminated zone b parameter	41	0.00	41	0.00	37	0.01	37	0.00
Evapotranspiration coefficient	11	0.06	11	0.02	34	-0.01	34	0.00
Wind Speed	34	-0.01	34	0.00	15	0.04	15	0.01
Runoff coefficient	36	0.01	36	0.00	31	-0.01	31	0.00
Density of saturated zone	40	0.00	40	0.00	40	0.00	40	0.00
Saturated zone total porosity	24	-0.02	24	-0.01	30	-0.01	30	0.00
Saturated zone effective porosity	38	0.01	38	0.00	39	0.00	39	0.00
Saturated zone hydraulic conductivity	30	-0.01	30	0.00	16	-0.04	16	-0.01
Saturated zone hydraulic gradient	10	-0.07	10	-0.02	9	-0.06	9	-0.02
Well pump intake depth	17	-0.04	17	-0.01	14	-0.05	14	-0.01
Mass loading for inhalation	19	0.03	19	0.01	25	0.02	25	0.01
Indoor dust filtration factor	12	0.06	12	0.02	35	0.01	35	0.00
External gamma shielding factor	27	-0.02	27	-0.01	29	-0.01	29	0.00
Depth of soil mixing layer	28	0.02	28	0.01	12	-0.05	12	-0.02
Depth of roots	5	0.18	5	0.05	4	0.17	4	0.05
Wet weight crop yield of fruit, grain and non-leafy vegetables	6	-0.17	6	-0.05	5	-0.14	5	-0.04
Weathering removal constant of all vegetation	2	-0.85	2	-0.47	2	-0.87	2	-0.54
Wet foliar interception fraction of leafy vegetables	7	0.14	7	0.04	7	0.12	7	0.04
Plant transfer factor for Co	37	-0.01	37	0.00	33	-0.01	33	0.00
Meat transfer factor for Co	22	-0.02	22	-0.01	38	0.00	38	0.00
Milk transfer factor for Co	23	-0.02	23	-0.01	41	0.00	41	0.00
Plant transfer factor for Cs	8	0.13	8	0.04	6	0.14	6	0.04
Meat transfer factor for Cs	3	0.84	3	0.47	3	0.85	3	0.48
Milk transfer factor for Cs	1	0.91	1	0.64	1	0.90	1	0.61
Plant transfer factor for Eu	31	-0.01	31	0.00	32	-0.01	32	0.00
Meat transfer factor for Eu	9	0.08	9	0.02	26	-0.02	26	-0.01
Milk transfer factor for Eu	25	-0.02	25	-0.01	24	0.02	24	0.01
Plant transfer factor for H	33	0.01	33	0.00	36	-0.01	36	0.00
Meat transfer factor for H	32	-0.01	32	0.00	20	0.03	20	0.01
Milk transfer factor for H	13	0.05	13	0.02	19	0.03	19	0.01
Plant transfer factor for Ni	39	0.00	39	0.00	8	0.07	8	0.02
Meat transfer factor for Ni	16	-0.04	16	-0.01	23	-0.03	23	-0.01
Milk transfer factor for Ni	21	0.03	21	0.01	10	0.06	10	0.02
Plant transfer factor for Sr	20	0.03	20	0.01	21	0.03	21	0.01
Meat transfer factor for Sr	29	0.02	29	0.00	17	-0.04	17	-0.01
Milk transfer factor for Sr	35	0.01	35	0.00	28	0.01	28	0.00
R-SQUARE		0.91		0.91		0.91		0.91

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

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

Title : RESRAD Default  
 Input File : ZION BFM 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
Cover erosion rate	4	0.44	4	0.18	9	0.09	9	0.03
Density of contaminated zone	17	-0.03	17	-0.01	25	0.03	25	0.01
Contaminated zone erosion rate	23	0.02	23	0.01	14	0.04	14	0.01
Contaminated zone total porosity	19	-0.03	19	-0.01	35	0.00	35	0.00
Contaminated zone hydraulic conductivity	27	-0.02	27	-0.01	37	0.00	37	0.00
Contaminated zone b parameter	14	-0.05	14	-0.02	12	-0.05	12	-0.02
Evapotranspiration coefficient	24	-0.02	24	-0.01	31	0.01	31	0.00
Wind Speed	33	-0.01	33	0.00	21	0.03	21	0.01
Runoff coefficient	10	-0.05	10	-0.02	30	-0.01	30	0.00
Density of saturated zone	13	-0.05	13	-0.02	34	0.00	34	0.00
Saturated zone total porosity	25	0.02	25	0.01	23	0.03	23	0.01
Saturated zone effective porosity	31	0.02	31	0.01	29	-0.01	29	0.00
Saturated zone hydraulic conductivity	30	0.02	30	0.01	15	-0.04	15	-0.01
Saturated zone hydraulic gradient	8	-0.08	8	-0.03	8	-0.09	8	-0.03
Well pump intake depth	20	-0.03	20	-0.01	32	-0.01	32	0.00
Mass loading for inhalation	34	-0.01	34	0.00	18	0.04	18	0.01
Indoor dust filtration factor	18	0.03	18	0.01	13	0.04	13	0.01
External gamma shielding factor	37	0.01	37	0.00	24	-0.03	24	-0.01
Depth of soil mixing layer	32	-0.01	32	0.00	36	0.00	36	0.00
Depth of roots	9	0.06	9	0.02	6	0.11	6	0.04
Wet weight crop yield of fruit, grain and non-leafy vegetables	7	-0.12	7	-0.04	4	-0.14	4	-0.05
Weathering removal constant of all vegetation	2	-0.79	2	-0.46	2	-0.84	2	-0.51
Wet foliar interception fraction of leafy vegetables	6	0.17	6	0.06	5	0.12	5	0.04
Plant transfer factor for Co	41	0.00	41	0.00	41	0.00	41	0.00
Meat transfer factor for Co	16	0.04	16	0.01	20	0.03	20	0.01
Milk transfer factor for Co	35	-0.01	35	0.00	17	-0.04	17	-0.01
Plant transfer factor for Cs	5	0.18	5	0.07	7	0.09	7	0.03
Meat transfer factor for Cs	3	0.78	3	0.46	3	0.83	3	0.49
Milk transfer factor for Cs	1	0.87	1	0.64	1	0.88	1	0.61
Plant transfer factor for Eu	39	0.00	39	0.00	38	0.00	38	0.00
Meat transfer factor for Eu	12	-0.05	12	-0.02	28	-0.01	28	0.00
Milk transfer factor for Eu	29	0.02	29	0.01	22	0.03	22	0.01
Plant transfer factor for H	40	0.00	40	0.00	11	-0.06	11	-0.02
Meat transfer factor for H	36	-0.01	36	0.00	16	0.04	16	0.01
Milk transfer factor for H	11	-0.05	11	-0.02	39	0.00	39	0.00
Plant transfer factor for Ni	21	0.03	21	0.01	19	0.03	19	0.01
Meat transfer factor for Ni	38	-0.01	38	0.00	40	0.00	40	0.00
Milk transfer factor for Ni	26	0.02	26	0.01	26	-0.02	26	-0.01
Plant transfer factor for Sr	28	-0.02	28	-0.01	27	-0.01	27	0.00
Meat transfer factor for Sr	15	0.04	15	0.02	33	0.00	33	0.00
Milk transfer factor for Sr	22	-0.02	22	-0.01	10	0.07	10	0.02
R-SQUARE		0.87		0.87		0.89		0.89

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

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



Title : RESRAD Default  
 Input File : ZION BFM 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
Cover erosion rate	4	0.51	4	0.26	29	-0.01	29	0.00
Density of contaminated zone	34	-0.01	34	-0.01	13	0.03	13	0.01
Contaminated zone erosion rate	19	-0.03	19	-0.01	36	0.01	36	0.00
Contaminated zone total porosity	12	0.04	12	0.02	32	0.01	32	0.00
Contaminated zone hydraulic conductivity	16	-0.03	16	-0.01	30	-0.01	30	0.00
Contaminated zone b parameter	24	0.02	23	0.01	18	-0.03	18	-0.01
Evapotranspiration coefficient	35	0.01	35	0.00	10	-0.04	10	-0.01
Wind Speed	25	-0.02	25	-0.01	34	0.01	34	0.00
Runoff coefficient	30	0.01	30	0.01	7	0.07	7	0.02
Density of saturated zone	15	0.04	15	0.02	11	0.04	11	0.01
Saturated zone total porosity	39	-0.01	39	0.00	31	-0.01	31	0.00
Saturated zone effective porosity	17	0.03	17	0.01	35	-0.01	35	0.00
Saturated zone hydraulic conductivity	18	-0.03	18	-0.01	40	0.00	40	0.00
Saturated zone hydraulic gradient	8	-0.06	8	-0.03	22	0.02	22	0.01
Well pump intake depth	26	0.02	27	0.01	17	0.03	17	0.01
Mass loading for inhalation	28	-0.02	29	-0.01	39	0.00	39	0.00
Indoor dust filtration factor	36	0.01	36	0.00	37	0.01	37	0.00
External gamma shielding factor	13	-0.04	13	-0.02	23	-0.02	23	-0.01
Depth of soil mixing layer	40	0.00	40	0.00	33	0.01	33	0.00
Depth of roots	6	0.12	6	0.05	5	0.13	5	0.04
Wet weight crop yield of fruit, grain and non-leafy vegetables	7	-0.08	7	-0.03	8	-0.05	8	-0.01
Weathering removal constant of all vegetation	2	-0.71	2	-0.44	2	-0.85	2	-0.53
Wet foliar interception fraction of leafy vegetables	10	0.05	10	0.02	6	0.10	6	0.03
Plant transfer factor for Co	31	-0.01	31	-0.01	24	0.02	24	0.01
Meat transfer factor for Co	23	0.02	24	0.01	12	0.04	12	0.01
Milk transfer factor for Co	38	0.01	38	0.00	16	0.03	16	0.01
Plant transfer factor for Cs	5	0.25	5	0.11	4	0.15	4	0.05
Meat transfer factor for Cs	3	0.68	3	0.41	3	0.84	3	0.50
Milk transfer factor for Cs	1	0.81	1	0.60	1	0.88	1	0.60
Plant transfer factor for Eu	9	0.05	9	0.02	28	0.02	28	0.01
Meat transfer factor for Eu	41	0.00	41	0.00	9	-0.04	9	-0.01
Milk transfer factor for Eu	33	-0.01	33	-0.01	15	-0.03	15	-0.01
Plant transfer factor for H	32	0.01	32	0.01	20	0.02	20	0.01
Meat transfer factor for H	22	0.02	22	0.01	14	-0.03	14	-0.01
Milk transfer factor for H	29	-0.02	28	-0.01	26	-0.02	26	-0.01
Plant transfer factor for Ni	37	0.01	37	0.00	25	0.02	25	0.01
Meat transfer factor for Ni	14	-0.04	14	-0.02	19	0.03	19	0.01
Milk transfer factor for Ni	11	-0.04	11	-0.02	21	-0.02	21	-0.01
Plant transfer factor for Sr	27	0.02	26	0.01	27	0.02	27	0.01
Meat transfer factor for Sr	21	0.03	21	0.01	41	0.00	41	0.00
Milk transfer factor for Sr	20	0.03	20	0.01	38	0.00	38	0.00
R-SQUARE		0.81		0.81		0.90		0.90

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

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