

Contaminated Zone Dimensions Initial Soil Concentrations, pCi/g
 Area: 10000.00 square meters Pu-238 1.000E+00
 Thickness: 1.00 meters
 Cover Depth: 0.00 meters

0
 Total Dose TDOSE(t), mrem/yr
 Basic Radiation Dose Limit = 2.500E+01 mrem/yr
 Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)
 t (years): 0.000E+00 1.000E+00 3.000E+00 1.000E+01 3.500E+01 1.500E+02 3.000E+02 1.000E+03 1.000E+04
 TDOSE(t): 8.284E-01 8.208E-01 8.059E-01 7.556E-01 6.005E-01 2.093E-01 1.191E-01 1.084E-03 3.894E-07
 M(t): 3.314E-02 3.283E-02 3.223E-02 3.023E-02 2.402E-02 8.370E-03 4.765E-03 4.336E-05 1.557E-08

0
 Maximum TDOSE(t): 8.284E-01 mrem/yr at t = 0.000E+00 years
 1RESRAD, Version 6.1 T« Limit = 0.5 year 06/18/2002 14:30 Page 10
 Summary : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 File : NEW PU238.RAD

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years
 Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pu-238	8.663E-05	0.0001	5.130E-03	0.0062	0.000E+00	0.0000	7.641E-01	0.9224	1.329E-02	0.0160	4.447E-04	0.0005	4.537E-02	0.0548
Total	8.663E-05	0.0001	5.130E-03	0.0062	0.000E+00	0.0000	7.641E-01	0.9224	1.329E-02	0.0160	4.447E-04	0.0005	4.537E-02	0.0548

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years
 Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pu-238	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.284E-01	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	8.284E-01	1.0000

0*Sum of all water independent and dependent pathways.
 1RESRAD, Version 6.1 T« Limit = 0.5 year 06/18/2002 14:30 Page 11
 Summary : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 File : NEW PU238.RAD

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years
 Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pu-238	8.584E-05	0.0001	5.083E-03	0.0062	0.000E+00	0.0000	7.571E-01	0.9224	1.317E-02	0.0160	4.407E-04	0.0005	4.496E-02	0.0548
Total	8.584E-05	0.0001	5.083E-03	0.0062	0.000E+00	0.0000	7.571E-01	0.9224	1.317E-02	0.0160	4.407E-04	0.0005	4.496E-02	0.0548

Dose/Source Ratios Summed Over All Pathways
 Parent and Progeny Principal Radionuclide Contributions Indicated

OParent (i)	Product (j)	Branch Fraction*	DSR(j,t) (mrem/yr)/(pCi/g)								
AAAAAAA	AAAAAAA	AAAAAAA	t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
Pu-238	Pu-238	1.000E+00	8.284E-01	8.208E-01	8.059E-01	7.556E-01	6.005E-01	2.086E-01	1.185E-01	1.081E-03	0.000E+00
Pu-238	U-234	1.000E+00	1.797E-07	5.398E-07	1.236E-06	3.441E-06	3.379E-05	6.284E-04	6.613E-04	2.036E-06	0.000E+00
Pu-238	Th-230	1.000E+00	4.218E-13	2.746E-12	1.388E-11	1.160E-10	1.105E-09	9.442E-09	1.658E-08	1.578E-08	1.016E-09
Pu-238	Ra-226	1.000E+00	6.166E-15	9.523E-14	1.116E-12	2.861E-11	9.518E-10	4.408E-08	2.121E-07	8.416E-07	3.736E-07
Pu-238	Pb-210	1.000E+00	4.270E-17	1.139E-15	2.557E-14	1.738E-12	1.684E-10	1.779E-08	8.574E-08	2.239E-07	1.475E-08
Pu-238	aDSR(j)		8.284E-01	8.208E-01	8.059E-01	7.556E-01	6.005E-01	2.093E-01	1.191E-01	1.084E-03	3.894E-07
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

*Branch Fraction is the cumulative factor for the j't principal radionuclide daughter: CUMBRF(j) = BRF(1)*BRF(2)* ... BRF(j).
 The DSR includes contributions from associated (half-life 6 0.5 yr) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g
 Basic Radiation Dose Limit = 2.500E+01 mrem/yr

ONuclide (i)	t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Pu-238	3.018E+01	3.046E+01	3.102E+01	3.308E+01	4.163E+01	1.195E+02	2.098E+02	2.306E+04	6.421E+07
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)
 and Single Radionuclide Soil Guidelines G(i,t) in pCi/g
 at tmin = time of minimum single radionuclide soil guideline
 and at tmax = time of maximum total dose = 0.000E+00 years

ONuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Pu-238	1.000E+00	0.000E+00	8.284E-01	3.018E+01	8.284E-01	3.018E+01
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

Individual Nuclide Dose Summed Over All Pathways
 Parent Nuclide and Branch Fraction Indicated

ONuclide (j)	Parent (i)	BRF(i)	DOSE(j,t), mrem/yr								
AAAAAAA	AAAAAAA	AAAAAAA	t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
Pu-238	Pu-238	1.000E+00	8.284E-01	8.208E-01	8.059E-01	7.556E-01	6.005E-01	2.086E-01	1.185E-01	1.081E-03	0.000E+00
OU-234	Pu-238	1.000E+00	1.797E-07	5.398E-07	1.236E-06	3.441E-06	3.379E-05	6.284E-04	6.613E-04	2.036E-06	0.000E+00
OTh-230	Pu-238	1.000E+00	4.218E-13	2.746E-12	1.388E-11	1.160E-10	1.105E-09	9.442E-09	1.658E-08	1.578E-08	1.016E-09
ORa-226	Pu-238	1.000E+00	6.166E-15	9.523E-14	1.116E-12	2.861E-11	9.518E-10	4.408E-08	2.121E-07	8.416E-07	3.736E-07
OPb-210	Pu-238	1.000E+00	4.270E-17	1.139E-15	2.557E-14	1.738E-12	1.684E-10	1.779E-08	8.574E-08	2.239E-07	1.475E-08
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

BRF(i) is the branch fraction of the parent nuclide.

Individual Nuclide Soil Concentration
 Parent Nuclide and Branch Fraction Indicated

ONuclide Parent (j)	BRF(i)	S(j,t), pCi/g
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1 RESRAD Regression and Correlation output 05/20/02 23:23

Title: SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

Input File : NEW PU238.RAD

Sensitive Parameter Summary Table

Plant transfer factor for Pu (+,+,+,+,+,+)

Meat transfer factor for Pu (+,+,+)

Mass loading for inhalation (+,+)

Indoor dust filtration factor (+,+)

1 RESRAD, Version 6.1 T_{1/2} Limit = 0.5 year 05/20/2002 15:10 Page 23
 Probabilistic results summary : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 one File: NEW PU238.RAD

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	7.051E-01
2	0.000E+00	7.164E-01
3	0.000E+00	7.033E-01

1 RESRAD Regression and Correlation output 05/20/02 23:23 Page: Coef 1
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU238.RAD

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

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Thickness of Unsaturated zone 1	26	0.04	31	0.00	9	-0.10	13	0.00
Indoor dust filtration factor	4	0.31	8	0.00	4	0.27	7	0.00
Wind Speed	5	-0.17	11	0.00	7	-0.11	11	0.00
Inhalation rate	6	0.15	12	0.00	5	0.21	8	0.00
Mass loading for inhalation	3	0.34	6	0.00	3	0.27	6	0.00
Meat transfer factor for Pb	10	-0.07	17	0.00	8	0.11	12	0.00
Plant transfer factor for Pu	1	1.00	1	1.00	1	1.00	1	1.00
Meat transfer factor for Pu	2	0.77	2	0.01	2	0.73	2	0.01
Milk transfer factor for U	60	0.01	60	0.00	10	-0.10	14	0.00
Kd of Pu-238 in Contaminated Zone	21	0.04	25	0.00	6	0.11	10	0.00
		1.00		1.00		1.00		1.00

R-SQUARE

-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.

1 RESRAD Regression and Correlation output 05/20/02 23:23 Page: Coef 2
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU238.RAD

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

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Depth of roots	33	0.04	35	0.00	7	-0.09	12	0.00
Contaminated zone hydraulic conductivity	23	0.05	27	0.00	10	0.08	15	0.00
Indoor dust filtration factor	4	0.45	4	0.00	5	0.17	9	0.00
Inhalation rate	5	0.38	5	0.00	3	0.19	7	0.00
Mass loading for inhalation	3	0.57	3	0.00	4	0.19	8	0.00
Plant transfer factor for Pu	1	1.00	1	1.00	1	1.00	1	1.00
Meat transfer factor for Pu	2	0.92	2	0.01	2	0.63	2	0.01
Milk transfer factor for U	42	0.03	43	0.00	9	-0.08	13	0.00
Indoor dust filtration factor	40	0.03	40	0.00	6	-0.12	11	0.00
Kd of U-234 in Unsaturated Zone 1	10	-0.09	14	0.00	8	0.08	14	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 variation in the dependent variable (Dose) explained by regression on the independent variables.

1 RESRAD Regression and Correlation output 05/20/02 23:23 Page: Coef 3
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU238.RAD

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

	PCC 3	SRC 3	PRCC 3	SRRC 3
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Indoor dust filtration factor	4 0.53	4 0.00	4 0.25	8 0.00
Wind Speed	5 -0.36	11 0.00	5 -0.20	9 0.00
Humidity in air	8 0.11	15 0.00	8 -0.11	12 0.00
Inhalation rate	6 0.32	12 0.00	9 0.11	13 0.00
Mass loading for inhalation	3 0.54	3 0.00	3 0.27	6 0.00
Milk transfer factor for Pb	71 0.00	71 0.00	6 0.13	10 0.00
Plant transfer factor for Pu	1 1.00	1 1.00	1 1.00	1 1.00
Meat transfer factor for Pu	2 0.94	2 0.01	2 0.71	2 0.01
Plant transfer factor for Th	28 -0.05	31 0.00	7 -0.11	11 0.00
Kd of Th-230 in Contaminated Zone	63 0.01	63 0.00	10 0.08	14 0.00
R-SQUARE	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>	<u>1.00</u>

-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.

1 RESRAD Regression and Correlation output 05/20/02 23:23 Page: Coef 4
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU238.RAD

Coefficients for peak All Pathways Dose
 Coefficient =
 Repetition =

	PCC 1	SRC 1	PRCC 1	SRRC 1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Saturated zone hydraulic gradient	4 0.10	11 0.04	6 0.12	13 0.02
Well pump intake depth	3 -0.11	9 -0.05	8 -0.10	15 -0.02
Humidity in air	2 0.12	8 0.05	9 0.09	16 0.02
Mass loading for inhalation	36 0.02	37 0.01	10 0.08	17 0.02
Plant transfer factor for Pu	1 0.89	1 0.89	1 0.98	1 0.98
Milk transfer factor for U	12 -0.07	15 -0.03	7 -0.11	14 -0.02
Kd of Pu-238 in Contaminated Zone	64 -0.01	64 0.00	3 -0.17	10 -0.03
Kd of Pu-238 in Unsaturated Zone 1	52 -0.01	50 -0.01	2 -0.20	9 -0.04
Kd of Pu-238 in Saturated Zone	69 0.00	69 0.00	5 -0.13	12 -0.02
Kd of Th-230 in Unsaturated Zone 1	48 -0.01	48 -0.01	4 -0.14	11 -0.03
R-SQUARE	<u>0.81</u>	<u>0.81</u>	<u>0.96</u>	<u>0.96</u>

-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.

1 RESRAD Regression and Correlation output 05/20/02 23:23 Page: Coef 5
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU238.RAD

Coefficients for peak All Pathways Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		2		2		2		2	
Repetition =									
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Evapotranspiration coefficient		10	-0.07	16	-0.01	7	-0.10	14	-0.02
Density of Unsaturated zone 1		4	0.09	2	0.15	9	0.10	2	0.16
Well pump intake depth		7	-0.08	13	-0.02	6	-0.10	13	-0.02
Wet foliar interception fraction of leafy vegetables		23	0.04	26	0.01	10	0.09	16	0.02
Precipitation		14	0.05	19	0.01	8	0.10	15	0.02
Plant transfer factor for Pu		1	0.97	1	0.98	1	0.98	1	0.97
Kd of Pu-238 in Contaminated Zone		33	-0.03	34	-0.01	3	-0.19	9	-0.04
Kd of Pu-238 in Unsaturated Zone 1		24	-0.04	25	-0.01	2	-0.20	8	-0.04
Kd of Pu-238 in Saturated Zone		48	-0.02	49	0.00	4	-0.15	10	-0.03
Kd of Ra-226 in Contaminated Zone		35	-0.03	36	-0.01	5	-0.12	11	-0.03
R-SQUARE		0.96		0.96		0.96		0.96	

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

1 RESRAD Regression and Correlation output 05/20/02 23:23 Page: Coef 6
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU238.RAD

Coefficients for peak All Pathways Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		3		3		3		3	
Repetition =									
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Density of contaminated zone		25	0.03	6	0.07	9	0.08	5	0.05
Contaminated zone total porosity		35	-0.02	7	-0.05	7	-0.08	4	-0.06
Wet weight crop yield of fruit, grain and non-leafy vegetables		52	-0.01	55	0.00	8	-0.08	14	-0.01
Fish transfer factor for Pb		26	-0.03	28	-0.01	6	-0.09	12	-0.01
Plant transfer factor for Pu		1	0.95	1	0.96	1	1.00	1	0.99
Meat transfer factor for Pu		18	-0.05	21	-0.01	3	0.14	10	0.01
Milk transfer factor for Pu		57	0.01	59	0.00	5	0.09	13	0.01
Milk transfer factor for Th		50	0.01	52	0.00	10	0.08	15	0.01
Kd of Pu-238 in Contaminated Zone		51	-0.01	53	0.00	4	-0.14	11	-0.01
Kd of Pu-238 in Unsaturated Zone 1		37	-0.02	39	-0.01	2	-0.16	9	-0.02
R-SQUARE		0.92		0.92		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 variation in the dependent variable (Dose) explained by regression on the independent variables.

***** Statistics Report *****

Plant Trans Factor for Pu

Sample size (N)	5000
No. missing	0
Minimum	3.58000000E-005
Maximum	0.0275
Std deviation	0.0017
Mean	0.0015
Geometric mean	NaN
Quadratic mean	0.0023
Harmonic mean	0.0007
Sum	7.5903
Absolute Sum	7.5903
Median	0.0010
Percentiles:	
10	0.0003
25	0.0005
50	0.0010
75	0.0018 ✓
90	0.0032
Quartiles:	
First quartile:	0.0005
Second quartile:	0.0010
Third quartile:	0.0018
95.00% Confidence Interval:	
lower limit	0.0015
upper limit	0.0016

***** The End *****

***** Statistics Report *****

Meat Trans Factor for Pu

Sample size (N)	5000
No. missing	0
Minimum	2.29000000E-005
Maximum	0.0004
Std deviation	4.59080030E-005
<u>Mean</u>	<u>0.0001</u>
Geometric mean	NaN
Quadratic mean	0.0001
Harmonic mean	9.21506036E-005
Sum	0.5430
Absolute Sum	0.5430
Median	1.00000000E-004
Percentiles:	
10	5.95000000E-005
<u>25</u>	<u>7.61000000E-005</u>
50	1.00000000E-004
<u>75</u>	<u>0.0001</u> ✓
90	0.0002
Quartiles:	
First quartile:	7.61000000E-005
Second quartile:	1.00000000E-004
Third quartile:	0.0001
95.00% Confidence Interval:	
lower limit	0.0001
upper limit	0.0001

***** The End *****

***** Statistics Report *****

Mass Loading for Inhalation

Sample size (N)	5000
No. missing	0
Minimum	7.44000000E-008
Maximum	9.79000000E-005
Std deviation	1.00478597E-005
Mean	2.45395491E-005
Geometric mean	NaN
Quadratic mean	2.65165752E-005
Harmonic mean	1.78820836E-005
Sum	0.1227
Absolute Sum	0.1227
Median	2.35000000E-005
Percentiles:	
10	1.36000000E-005
25	1.84000000E-005
50	2.35000000E-005
75	2.87000000E-005 ✓
90	3.64000000E-005
Quartiles:	
First quartile:	1.84000000E-005
Second quartile:	2.35000000E-005
Third quartile:	2.87000000E-005
95.00% Confidence Interval:	
lower limit	2.42609743E-005
upper limit	2.48181239E-005

***** The End *****

***** Statistics Report *****

Indoor Dust Filtration Fact

Sample size (N)	5000
No. missing	0
Minimum	0.1501
Maximum	0.9499
Std deviation	0.2310
Mean	0.5500
Geometric mean	NaN
Quadratic mean	0.5965
Harmonic mean	0.4334
Sum	2750.0015
Absolute Sum	2750.0015
Median	0.5498
Percentiles:	
10	0.2299
25	0.3500
50	0.5498
75	0.7500 ✓
90	0.8701
Quartiles:	
First quartile:	0.3500
Second quartile:	0.5498
Third quartile:	0.7500
95.00% Confidence Interval:	
lower limit	0.5436
upper limit	0.5564

***** The End *****

Contaminated Zone Dimensions Initial Soil Concentrations, pCi/g
 Area: 10000.00 square meters Pu-238 1.000E+00
 Thickness: 1.00 meters
 Cover Depth: 0.00 meters

0
 Total Dose TDOSE(t), mrem/yr
 Basic Radiation Dose Limit = 4.000E+00 mrem/yr
 Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)
 t (years): 0.000E+00 1.000E+00 3.000E+00 1.000E+01 3.500E+01 1.500E+02 3.000E+02 1.000E+03 1.000E+04
 TDOSE(t): 0.000E+00 0.000E+00 0.000E+00 3.468E-07 6.378E-05 1.480E-01 1.337E-01 4.514E-04 4.196E-08
 M(t): 0.000E+00 0.000E+00 0.000E+00 8.671E-08 1.594E-05 3.701E-02 3.343E-02 1.128E-04 1.049E-08
 OMaximum TDOSE(t): 1.702E-01 mrem/yr at t = 200.4 ± 0.4 years

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 2.004E+02 years
 Water Independent Pathways (Inhalation excludes radon)

Radio-Nuclide	Ground	Inhalation	Radon	Plant	Meat	Milk	Soil
	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.
Pu-238	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000
Total	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 2.004E+02 years
 Water Dependent Pathways

Radio-Nuclide	Water	Fish	Radon	Plant	Meat	Milk	All Pathways*
	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.
Pu-238	1.702E-01 1.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	1.702E-01 1.0000
Total	1.702E-01 1.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	1.702E-01 1.0000

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years
 Water Independent Pathways (Inhalation excludes radon)

Radio-Nuclide	Ground	Inhalation	Radon	Plant	Meat	Milk	Soil
	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.
Pu-238	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000
Total	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

Dose/Source Ratios Summed Over All Pathways
 Parent and Progeny Principal Radionuclide Contributions Indicated

OParent (i)	Product (j)	Branch Fraction*	DSR(j,t) (mrem/yr)/(pCi/g)																		
AAAAAAA	AAAAAAA	AAAAAAA	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	
Pu-238	Pu-238	1.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.477E-01	1.336E-01	4.510E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pu-238	U-234	1.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.468E-07	6.378E-05	3.273E-04	1.437E-04	2.637E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pu-238	Th-230	1.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.757E-14	5.864E-12	1.639E-10	3.217E-10	3.952E-10	3.625E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pu-238	Ra-226	1.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.348E-14	2.323E-11	7.945E-09	3.999E-08	1.038E-07	4.000E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pu-238	Pb-210	1.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.132E-15	1.853E-13	1.814E-10	1.307E-09	4.160E-09	1.599E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Pu-238	hDSR(j)		0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.468E-07	6.378E-05	1.480E-01	1.337E-01	4.514E-04	4.196E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

*Branch Fraction is the cumulative factor for the j't principal radionuclide daughter: CUMBRF(j) = BRF(1)*BRF(2)* ... BRF(j).
 The DSR includes contributions from associated (half-life < 0.5 yr) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g
 Basic Radiation Dose Limit = 4.000E+00 mrem/yr

ONuclide (i)	t = 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Pu-238	*1.711E+13	*1.711E+13	*1.711E+13	1.153E+07	6.272E+04	2.702E+01	2.991E+01	8.862E+03	9.533E+07
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)
 and Single Radionuclide Soil Guidelines G(i,t) in pCi/g
 at tmin = time of minimum single radionuclide soil guideline
 and at tmax = time of maximum total dose = 200.4 ± 0.4 years

ONuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Pu-238	1.000E+00	200.4 ± 0.4	1.702E-01	2.351E+01	1.702E-01	2.351E+01
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

Individual Nuclide Dose Summed Over All Pathways
 Parent Nuclide and Branch Fraction Indicated

ONuclide (j)	Parent (i)	BRF(i)	DOSE(j,t), mrem/yr																	
AAAAAAA	AAAAAAA	AAAAAAA	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Pu-238	Pu-238	1.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.477E-01	1.336E-01	4.510E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OU-234	Pu-238	1.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	3.468E-07	6.378E-05	3.273E-04	1.437E-04	2.637E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OTh-230	Pu-238	1.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.757E-14	5.864E-12	1.639E-10	3.217E-10	3.952E-10	3.625E-10	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ORa-226	Pu-238	1.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.348E-14	2.323E-11	7.945E-09	3.999E-08	1.038E-07	4.000E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
OPb-210	Pu-238	1.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.132E-15	1.853E-13	1.814E-10	1.307E-09	4.160E-09	1.599E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

BRF(1) is the branch fraction of the parent nuclide.

Individual Nuclide Soil Concentration
 Parent Nuclide and Branch Fraction Indicated

1 RESRAD Regression and Correlation output 05/26/02 01:02

Title: SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

Input File : NEW PU238 DW.RAD

Sensitive Parameter Summary Table

Kd of Pu-238 in Unsaturated Zone 1 (-,-,-,-,-)

Thickness of Unsaturated zone 1 (-,-,-,-,-)

Kd of U-234 in Unsaturated Zone 1 (-,-,-,-)

Kd of Pu-238 in Contaminated Zone (-,-,-)

Kd of Pu-238 in Saturated Zone (-,-,-)

Kd of U-234 in Contaminated Zone (-,-)

Well pump intake depth (-,-)

Kd of U-234 in Saturated Zone (-)

Saturated zone hydraulic conductivity (-)

Milk transfer factor for Th (+)

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	1.202E+02	2.965E-02
2	1.738E+02	2.087E-02
3	1.202E+02	1.081E-02

1 RESRAD Regression and Correlation output 05/26/02 01:02 Page: Coef 1
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU238 DW.RAD

Coefficients for peak of mean dose time Dose

Coefficient = Repetition =	PCC		SRC		PRCC		SRRC	
	1	1	1	1	1	1	1	1
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Density of contaminated zone	36	0.03	4	0.19	8	-0.14	1	-0.59
Thickness of Unsaturated zone 1	1	-0.15	5	-0.15	2	-0.52	7	-0.36
Evapotranspiration coefficient	14	-0.06	21	-0.06	10	0.13	17	0.08
Kd of Pb-210 in Unsaturated Zone 1	39	-0.03	38	-0.03	5	-0.23	12	-0.14
Kd of Pu-238 in Unsaturated Zone 1	23	-0.04	29	-0.04	3	-0.52	8	-0.35
Kd of Pu-238 in Saturated Zone	17	-0.05	23	-0.05	6	-0.18	14	-0.11
Kd of Th-230 in Unsaturated Zone 1	38	-0.03	43	-0.03	7	-0.16	15	-0.10
Kd of U-234 in Contaminated Zone	40	-0.02	20	-0.06	4	-0.24	11	-0.14
Kd of U-234 in Unsaturated Zone 1	35	-0.03	42	-0.03	1	-0.63	4	-0.47
Kd of U-234 in Saturated Zone	51	0.01	54	0.01	9	-0.14	16	-0.08
R-SQUARE		0.13		0.13		0.67		0.67

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

1 RESRAD Regression and Correlation output 05/26/02 01:02 Page: Coef 2
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU238 DW.RAD

Coefficients for peak of mean dose time Dose

Coefficient = Repetition =	PCC		SRC		PRCC		SRRC	
	2	2	2	2	2	2	2	2
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Thickness of Unsaturated zone 1	11	-0.08	18	-0.07	3	-0.47	3	-0.34
Evapotranspiration coefficient	37	-0.04	38	-0.04	6	-0.14	13	-0.09
Hydraulic Conductivity of Unsaturated zone 1	71	0.00	71	0.00	8	-0.14	15	-0.09
Wind Speed	7	0.08	14	0.08	5	0.16	12	0.10
Meat transfer factor for Th	43	-0.03	45	-0.03	9	-0.13	16	-0.08
Kd of Pu-238 in Unsaturated Zone 1	42	-0.03	44	-0.03	2	-0.56	1	-0.43
Kd of Ra-226 in Saturated Zone	41	0.03	39	0.04	10	-0.13	17	-0.08
Kd of U-234 in Contaminated Zone	64	-0.01	66	-0.01	7	-0.14	14	-0.09
Kd of U-234 in Unsaturated Zone 1	65	-0.01	49	-0.02	1	-0.56	2	-0.42
Kd of U-234 in Saturated Zone	46	-0.02	48	-0.02	4	-0.18	8	-0.12
R-SQUARE		0.18		0.18		0.61		0.61

-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.

1 RESRAD Regression and Correlation output 05/26/02 01:02 Page: Coef 3
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU238 DW.RAD

Coefficients for peak of mean dose time Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		3		3		3		3	
Repetition =									
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	
Saturated zone effective porosity	11	0.09	4	0.31	10	0.12	1	0.63	
Saturated zone hydraulic conductivity	66	0.00	66	0.00	8	0.13	15	0.08	
Thickness of Unsaturated zone 1	58	-0.01	59	-0.01	3	-0.43	8	-0.31	
Thickness of evasion layer of C-14 in soil	47	-0.02	48	-0.02	7	-0.13	14	-0.08	
Plant transfer factor for Pu	53	0.02	53	0.01	6	-0.17	13	-0.11	
Milk transfer factor for Ra	20	-0.07	23	-0.07	9	-0.13	16	-0.08	
Kd of Pu-238 in Unsaturated Zone 1	16	-0.08	19	-0.08	2	-0.45	7	-0.32	
Kd of U-234 in Contaminated Zone	15	0.08	18	0.08	4	-0.19	11	-0.13	
Kd of U-234 in Unsaturated Zone 1	37	-0.04	38	-0.04	1	-0.63	4	-0.51	
Kd of U-234 in Saturated Zone	46	-0.02	47	-0.02	5	-0.19	12	-0.12	
R-SQUARE		0.20		0.20		0.61		0.61	

-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.

1 RESRAD Regression and Correlation output 05/26/02 01:02 Page: Coef 4
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU238 DW.RAD

Coefficients for peak All Pathways Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	
Thickness of Unsaturated zone 1	1	-0.14	3	-0.14	2	-0.55	2	-0.30	
Well pump intake depth	21	-0.05	26	-0.05	6	-0.31	8	-0.15	
Contaminated zone field capacity	65	0.00	66	0.00	10	-0.17	13	-0.08	
Precipitation	32	0.03	37	0.03	9	0.19	12	0.09	
Kd of Pu-238 in Contaminated Zone	45	-0.02	50	-0.02	3	-0.53	3	-0.29	
Kd of Pu-238 in Unsaturated Zone 1	36	-0.03	42	-0.03	1	-0.80	1	-0.62	
Kd of Pu-238 in Saturated Zone	16	-0.05	21	-0.05	4	-0.44	4	-0.23	
Kd of U-234 in Contaminated Zone	28	-0.03	6	-0.08	5	-0.39	6	-0.19	
Kd of U-234 in Unsaturated Zone 1	52	-0.02	56	-0.02	8	-0.20	11	-0.10	
Kd of U-234 in Saturated Zone	53	0.01	58	0.02	7	-0.28	9	-0.13	
R-SQUARE		0.13		0.13		0.80		0.80	

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

1 RESRAD Regression and Correlation output 05/26/02 01:02 Page: Coef 5
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

Coefficients for peak All Pathways Dose		PCC	SRC	PRCC	SRRC	
Coefficient =		2	2	2	2	
Repetition =						
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff
Saturated zone hydraulic conductivity	50	0.03	55	0.02	7	-0.17
Thickness of Unsaturated zone 1	6	-0.09	11	-0.08	3	-0.41
Effective Porosity of Unsaturated zone 1	24	-0.06	2	-0.43	8	-0.17
Well pump intake depth	14	-0.07	20	-0.07	6	-0.22
Kd of Pu-238 in Contaminated Zone	9	-0.08	14	-0.08	2	-0.43
Kd of Pu-238 in Unsaturated Zone 1	38	-0.04	41	-0.04	1	-0.76
Kd of Pu-238 in Saturated Zone	28	-0.05	32	-0.05	4	-0.36
Kd of U-234 in Contaminated Zone	59	-0.01	63	-0.01	5	-0.35
Kd of U-234 in Unsaturated Zone 1	71	0.00	71	0.00	10	-0.15
Kd of U-234 in Saturated Zone	52	-0.02	56	-0.02	9	-0.16
R-SQUARE		0.19		0.19		0.72

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

1 RESRAD Regression and Correlation output 05/26/02 01:02 Page: Coef 6
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU238 DW.RAD

Coefficients for peak All Pathways Dose		PCC	SRC	PRCC	SRRC	
Coefficient =		3	3	3	3	
Repetition =						
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff
Saturated zone hydraulic conductivity	54	0.02	57	0.01	6	-0.26
Thickness of Unsaturated zone 1	37	0.04	41	0.03	2	-0.51
Well pump intake depth	41	0.04	43	0.03	7	-0.26
Plant transfer factor for Th	58	0.01	59	0.01	10	-0.18
Milk transfer factor for Th	61	-0.01	62	-0.01	9	0.25
Kd of Pu-238 in Contaminated Zone	43	-0.03	44	-0.03	3	-0.40
Kd of Pu-238 in Unsaturated Zone 1	12	-0.07	16	-0.07	1	-0.82
Kd of Pu-238 in Saturated Zone	7	-0.09	13	-0.09	4	-0.32
Kd of U-234 in Contaminated Zone	23	0.06	25	0.06	5	-0.30
Kd of U-234 in Unsaturated Zone 1	57	-0.01	56	-0.02	8	-0.25
R-SQUARE		0.21		0.21		0.77

-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.

***** Statistics Report *****

Kd of Pu in Unsat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.9950
Maximum	888884.0000
Std deviation	25639.2325
Mean	5636.9318
Geometric mean	NaN
Quadratic mean	26249.0718
Harmonic mean	163.8473
Sum	28184659.2247
Absolute Sum	28184659.2247
Median	952.4420
Percentiles:	
10	84.4586
25	266.3835 (ANL=160)
50	952.4420
75	3410.1350
90	10756.2200
Quartiles:	
First quartile:	266.3835
Second quartile:	952.4420
Third quartile:	3410.1350
95.00% Confidence Interval:	
lower limit	4926.0895
upper limit	6347.7742

***** The End *****

***** Statistics Report *****

Thickness of Unsat Zone

Sample size (N)	5000
No. missing	0
Minimum	7.02000000E-005
Maximum	0.4999
Std deviation	0.1444
Mean	0.2500
Geometric mean	NaN
Quadratic mean	0.2887
Harmonic mean	0.0523
Sum	1250.0006
Absolute Sum	1250.0006
Median	0.2499
Percentiles:	
10	0.0499
25	0.1250 ✓
50	0.2499
75	0.3750
90	0.4501
Quartiles:	
First quartile:	0.1250
Second quartile:	0.2499
Third quartile:	0.3750
95.00% Confidence Interval:	
lower limit	0.2460
upper limit	0.2540

***** The End *****

***** Statistics Report *****

Kd of U in Unsat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0015
Maximum	10500000.0000
Std deviation	219309.2340
Mean	14088.8754
Geometric mean	NaN
Quadratic mean	219739.4302
Harmonic mean	1.2517
Sum	70444376.8780
Absolute Sum	70444376.8780
Median	126.2665
Percentiles:	
10	2.2844
25	15.3082 (ANL=16)
50	126.2665
75	1043.8750
90	6995.9760
Quartiles:	
First quartile:	15.3082
Second quartile:	126.2665
Third quartile:	1043.8750
95.00% Confidence Interval:	
lower limit	8008.5731
upper limit	20169.1777

***** The End *****

***** Statistics Report *****

Kd of Pu in C-Z

Sample size (N)	5000
No. missing	0
Minimum	0.9950
Maximum	888884.0000
Std deviation	25639.2325
Mean	5636.9318
Geometric mean	NaN
Quadratic mean	26249.0718
Harmonic mean	163.8473
Sum	28184659.2247
Absolute Sum	28184659.2247
Median	952.4420
Percentiles:	
10	84.4586
25	266.3835 (ANL=160)
50	952.4420
75	3410.1350
90	10756.2200
Quartiles:	
First quartile:	266.3835
Second quartile:	952.4420
Third quartile:	3410.1350
95.00% Confidence Interval:	
lower limit	4926.0895
upper limit	6347.7742

***** The End *****

***** Statistics Report *****

Kd of Pu in Sat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.9950
Maximum	888884.0000
Std deviation	25639.2325
Mean	5636.9318
Geometric mean	NaN
Quadratic mean	26249.0718
Harmonic mean	163.8473
Sum	28184659.2247
Absolute Sum	28184659.2247
Median	952.4420
Percentiles:	
10	84.4586
25	266.3835 (ANL=160)
50	952.4420
75	3410.1350
90	10756.2200
Quartiles:	
First quartile:	266.3835
Second quartile:	952.4420
Third quartile:	3410.1350
95.00% Confidence Interval:	
lower limit	4926.0895
upper limit	6347.7742

***** The End *****

***** Statistics Report *****

Kd of U in Contaminated Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0015
Maximum	10500000.0000
Std deviation	219309.2340
Mean	14088.8754
Geometric mean	NaN
Quadratic mean	219739.4302
Harmonic mean	1.2517
Sum	70444376.8780
Absolute Sum	70444376.8780
Median	126.2665
Percentiles:	
10	2.2844
25	15.3082 (ANL=16)
50	126.2665
75	1043.8750
90	6995.9760
Quartiles:	
First quartile:	15.3082
Second quartile:	126.2665
Third quartile:	1043.8750
95.00% Confidence Interval:	
lower limit	8008.5731
upper limit	20169.1777

***** The End *****

***** Statistics Report *****

Well Pump Intake Depth

Sample size (N)	5000
No. missing	0
Minimum	10.0056
Maximum	49.9944
Std deviation	11.5483
<u>Mean</u>	<u>30.0000</u>
Geometric mean	NaN
Quadratic mean	32.1456
Harmonic mean	24.8532
Sum	150000.0759
Absolute Sum	150000.0759
Median	29.9919
Percentiles:	
10	13.9940
<u>25</u>	<u>19.9981</u> ✓
50	29.9919
<u>75</u>	<u>39.9983</u>
90	46.0044
Quartiles:	
First quartile:	19.9981
Second quartile:	29.9919
Third quartile:	39.9983
95.00% Confidence Interval:	
lower limit	29.6798
upper limit	30.3202

***** The End *****

***** Statistics Report *****

Kd of Uranium in Saturated Zone

Sample size (N)	5000
Number missing	0
Minimum	0.0015
Maximum	10500000.0000
Std deviation	219309.2340
Variance	4.80965401E+010
<u>Mean</u>	<u>14088.8754</u>
Geometric mean	NaN
Quadratic mean	219739.4302
Harmonic mean	1.2517
Sum	70444376.8780
Absolute Sum	70444376.8780
Median	126.2665
Percentiles:	
10	2.2844
<u>25</u>	<u>15.3082 (ANL=16)</u>
50	126.2665
<u>75</u>	<u>1043.8750</u>
90	6995.9760
Quartiles:	
First quartile:	15.3082
Second quartile:	126.2665
Third quartile:	1043.8750
95.00% Confidence Interval:	
lower limit	8008.5731
upper limit	20169.1777

***** The End *****

***** Statistics Report *****

Sat Zone Hydraulic Conductivity

Sample size (N)	5000
No. missing	0
Minimum	15.7156
Maximum	909.4060
Std deviation	258.0881
Mean	462.5604
Geometric mean	NaN
Quadratic mean	529.6775
Harmonic mean	219.8750
Sum	2312801.7788
Absolute Sum	2312801.7788
Median	462.3790
Percentiles:	
10	104.8508
25	239.0330 ✓
50	462.3790
75	686.0087
90	820.2343
Quartiles:	
First quartile:	239.0330
Second quartile:	462.3790
Third quartile:	686.0087
95.00% Confidence Interval:	
lower limit	455.4049
upper limit	469.7158

***** The End *****

***** Statistics Report *****

Milk Transfer Factor for Thorium

Sample size (N)	5000
Number missing	0
Minimum	1.79000000E-007
Maximum	0.0001
Std deviation	8.63663952E-006
Variance	7.45915422E-011
Mean	7.57721800E-006
Geometric mean	NaN
Quadratic mean	1.14887274E-005
Harmonic mean	3.27702637E-006
Sum	0.0379
Absolute Sum	0.0379
Median	4.97500000E-006
Percentiles:	
10	1.54000000E-006
25	2.68250000E-006
50	4.97500000E-006
75	9.23750000E-006 ✓
90	1.61000000E-005
Quartiles:	
First quartile:	2.68250000E-006
Second quartile:	4.97500000E-006
Third quartile:	9.23750000E-006
95.00% Confidence Interval:	
lower limit	7.33776899E-006
upper limit	7.81666701E-006

***** The End *****

Contaminated Zone Dimensions
 Initial Soil Concentrations, pCi/g
 Area: 10000.00 square meters Pu-239 1.000E+00
 Thickness: 1.00 meters
 Cover Depth: 0.00 meters

0
 Total Dose TDOSE(t), mrem/yr
 Basic Radiation Dose Limit = 2.500E+01 mrem/yr
 Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)
 M(t): 3.736E-02 3.731E-02 3.721E-02 3.687E-02 3.567E-02 3.064E-02 7.195E-02 7.848E-02 0.000E+00
 TDOSE(t): 9.340E-01 9.328E-01 9.303E-01 9.218E-01 8.918E-01 7.660E-01 1.799E+00 1.962E+00 0.000E+00
 t (years): 0.000E+00 1.000E+00 3.000E+00 1.000E+01 3.500E+01 1.500E+02 3.000E+02 1.000E+03 1.000E+04
 OMaximum TDOSE(t): 3.633E+00 mrem/yr at t = 642 ± 1 years

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 6.423E+02 years
 Water Independent Pathways (Inhalation excludes radon)

Radio-Nuclide	Ground	Inhalation	Radon	Plant	Meat	Milk	Soil
	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.
Pu-239	7.051E-05 0.0000	8.402E-03 0.0023	0.000E+00 0.0000	3.140E-01 0.0864	6.146E-03 0.0017	2.066E-04 0.0001	2.156E-02 0.0059
Total	7.051E-05 0.0000	8.402E-03 0.0023	0.000E+00 0.0000	3.140E-01 0.0864	6.146E-03 0.0017	2.066E-04 0.0001	2.156E-02 0.0059

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 6.423E+02 years
 Water Dependent Pathways

Radio-Nuclide	Water	Fish	Radon	Plant	Meat	Milk	All Pathways*
	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.
Pu-239	2.818E+00 0.7757	2.132E-02 0.0059	0.000E+00 0.0000	4.362E-01 0.1200	6.841E-03 0.0019	2.193E-04 0.0001	3.633E+00 1.0000
Total	2.818E+00 0.7757	2.132E-02 0.0059	0.000E+00 0.0000	4.362E-01 0.1200	6.841E-03 0.0019	2.193E-04 0.0001	3.633E+00 1.0000

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years
 Water Independent Pathways (Inhalation excludes radon)

Radio-Nuclide	Ground	Inhalation	Radon	Plant	Meat	Milk	Soil
	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.
Pu-239	1.648E-04 0.0002	1.964E-02 0.0210	0.000E+00 0.0000	8.486E-01 0.9085	1.476E-02 0.0158	4.939E-04 0.0005	5.039E-02 0.0540
Total	1.648E-04 0.0002	1.964E-02 0.0210	0.000E+00 0.0000	8.486E-01 0.9085	1.476E-02 0.0158	4.939E-04 0.0005	5.039E-02 0.0540

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

1 RESRAD Regression and Correlation output 05/24/02 16:31

Title: SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

Input File : NEW PU239.RAD

Sensitive Parameter Summary Table

Plant transfer factor for Pu (+,+,+,+,+,+)

Kd of Pu-239 in Contaminated Zone (+,+) (-,-,-)

Kd of Pu-239 in Saturated Zone (-,-,-,-,-)

Kd of Pu-239 in Unsaturated Zone 1 (-,-,-,-,-)

Meat transfer factor for Pu (+)

Well pump intake depth (-,-)

Saturated zone hydraulic conductivity (-)

Indoor dust filtration factor (+)

1 RESRAD, Version 6.1 T_k Limit = 0.5 year 05/24/2002 15:29 Page 23
 Probabilistic results summary : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 one File: NEW PU239.RAD

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	5.248E+02	7.881E-01
2	0.000E+00	7.797E-01
3	5.248E+02	7.957E-01

1 RESRAD Regression and Correlation output 05/24/02 16:31 Page: Coef 1
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU239.RAD

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

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	1	1	1	1	1	1	1	1
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Thickness of Unsaturated zone 1	14	-0.07	20	-0.05	5	-0.15	11	-0.09
Saturated zone hydraulic gradient	27	-0.04	33	-0.02	9	0.11	15	0.06
Well pump intake depth	3	-0.15	8	-0.10	7	-0.11	13	-0.06
Mass loading for inhalation	64	0.00	64	0.00	6	0.12	12	0.07
Field Capacity of Unsaturated zone 1	6	0.11	14	0.07	10	0.11	16	0.06
Plant transfer factor for Pu	1	0.68	1	0.66	1	0.77	1	0.70
Kd of Pa-231 in Contaminated Zone	30	-0.04	35	-0.02	8	-0.11	14	-0.06
Kd of Pu-239 in Contaminated Zone	50	-0.02	51	-0.01	4	0.25	10	0.15
Kd of Pu-239 in Unsaturated Zone 1	16	-0.07	23	-0.05	2	-0.39	5	-0.25
Kd of Pu-239 in Saturated Zone	8	-0.11	13	-0.07	3	-0.25	9	-0.15
R-SQUARE	0.60		0.60		0.67		0.67	

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

1 RESRAD Regression and Correlation output 05/24/02 16:31 Page: Coef 2
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU239.RAD

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

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	2	2	2	2	2	2	2	2
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Indoor dust filtration factor	4	0.39	5	0.00	3	0.28	9	0.00
Wind Speed	5	-0.35	6	0.00	9	-0.12	16	0.00
Inhalation rate	6	0.27	10	0.00	4	0.24	11	0.00
External gamma shielding factor	21	-0.09	28	0.00	10	0.12	17	0.00
Mass loading for inhalation	3	0.49	3	0.00	5	0.20	12	0.00
Field Capacity of Unsaturated zone 1	22	0.08	29	0.00	7	0.13	14	0.00
Meat transfer factor for Ac	62	0.00	62	0.00	8	0.12	15	0.00
Plant transfer factor for Pu	1	1.00	1	1.00	1	1.00	1	1.00
Meat transfer factor for Pu	2	0.94	2	0.01	2	0.71	2	0.02
Meat transfer factor for U	30	0.05	35	0.00	6	0.16	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 variation in the dependent variable (Dose) explained by regression on the independent variables.

1 RESRAD Regression and Correlation output 05/24/02 16:31 Page: Coef 3
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU239.RAD

Coefficients for peak of mean dose time Dose		PCC	SRC	PRCC	SRRC			
Coefficient =		3	3	3	3			
Repetition =								
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff		
Depth of roots	51	-0.02	54	-0.02	5	-0.21	12	-0.11
Hydraulic Conductivity of Unsaturated zone 1	11	-0.08	14	-0.08	8	-0.14	15	-0.07
Wet weight crop yield of fruit, grain and non-leafy vegetables	32	-0.04	36	-0.03	6	-0.15	13	-0.08
Saturated zone field capacity	8	0.10	12	0.09	9	0.13	16	0.06
Plant transfer factor for Pu	1	0.33	5	0.32	1	0.82	1	0.71
Kd of Pa-231 in Unsaturated Zone 1	43	-0.02	43	-0.02	10	0.12	17	0.06
Kd of Pa-231 in Saturated Zone	41	-0.02	41	-0.02	7	0.14	14	0.07
Kd of Pu-239 in Contaminated Zone	54	-0.01	55	-0.01	3	0.45	7	0.26
Kd of Pu-239 in Unsaturated Zone 1	47	-0.02	30	-0.04	2	-0.50	6	-0.29
Kd of Pu-239 in Saturated Zone	64	0.00	64	0.00	4	-0.28	10	-0.15
R-SQUARE		0.25	0.25	0.75	0.75			

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

1 RESRAD Regression and Correlation output 05/24/02 16:31 Page: Coef 4
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU239.RAD

Coefficients for peak All Pathways Dose		PCC	SRC	PRCC	SRRC			
Coefficient =		1	1	1	1			
Repetition =								
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff		
Saturated zone hydraulic conductivity	12	-0.09	17	-0.07	6	-0.19	12	-0.09
Contaminated zone hydraulic conductivity	44	-0.03	46	-0.03	7	-0.17	13	-0.08
Saturated zone hydraulic gradient	40	-0.04	44	-0.03	9	-0.13	15	-0.06
Well pump intake depth	3	-0.17	9	-0.15	5	-0.28	9	-0.14
Inhalation rate	28	0.06	32	0.05	10	0.12	16	0.06
Plant transfer factor for Pu	1	0.34	4	0.33	1	0.84	1	0.73
Meat transfer factor for U	4	0.14	10	0.12	8	0.17	14	0.08
Kd of Pu-239 in Contaminated Zone	7	-0.12	11	-0.11	2	-0.54	2	-0.31
Kd of Pu-239 in Unsaturated Zone 1	60	-0.01	60	-0.01	4	-0.29	8	-0.14
Kd of Pu-239 in Saturated Zone	26	-0.06	27	-0.05	3	-0.42	5	-0.22
R-SQUARE		0.34	0.34	0.78	0.78			

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

1 RESRAD Regression and Correlation output 05/24/02 16:31 Page: Coef 5
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU239.RAD

Coefficients for peak All Pathways Dose
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	2		2		2		2	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Depth of roots	2	-0.15	11	-0.12	8	-0.15	11	-0.07
Saturated zone hydraulic conductivity	4	-0.14	10	-0.12	7	-0.15	10	-0.07
Thickness of Unsaturated zone 1	12	-0.08	19	-0.07	6	-0.17	9	-0.08
Contaminated zone b parameter	6	0.11	14	0.09	9	0.13	12	0.06
Evapotranspiration coefficient	21	-0.06	27	-0.05	10	-0.12	13	-0.05
Well pump intake depth	3	-0.15	9	-0.12	5	-0.21	6	-0.10
Plant transfer factor for Pu	1	0.54	1	0.52	1	0.86	1	0.76
Kd of Pu-239 in Contaminated Zone	7	-0.11	13	-0.09	2	-0.54	2	-0.29
Kd of Pu-239 in Unsaturated Zone 1	8	-0.11	15	-0.09	4	-0.24	5	-0.12
Kd of Pu-239 in Saturated Zone	5	-0.12	12	-0.10	3	-0.49	4	-0.26
R-SQUARE		0.42		0.42		0.79		0.79

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

1 RESRAD Regression and Correlation output 05/24/02 16:31 Page: Coef 6
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU239.RAD

Coefficients for peak All Pathways Dose
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	3		3		3		3	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Depth of roots	59	0.00	59	0.00	9	-0.13	15	-0.06
Saturated zone hydraulic conductivity	2	-0.25	6	-0.24	4	-0.30	8	-0.15
Runoff coefficient	48	0.01	49	0.01	8	-0.16	14	-0.08
Saturated zone hydraulic gradient	13	-0.06	17	-0.06	7	-0.17	13	-0.08
Well pump intake depth	3	-0.17	9	-0.15	6	-0.25	11	-0.12
Plant transfer factor for Pu	1	0.31	5	0.29	1	0.84	1	0.73
Kd of Pa-231 in Saturated Zone	54	-0.01	55	-0.01	10	0.13	16	0.06
Kd of Pu-239 in Contaminated Zone	7	-0.08	12	-0.08	3	-0.45	6	-0.24
Kd of Pu-239 in Unsaturated Zone 1	47	-0.02	34	-0.03	5	-0.25	10	-0.13
Kd of Pu-239 in Saturated Zone	15	-0.05	19	-0.05	2	-0.46	4	-0.25
R-SQUARE		0.25		0.25		0.78		0.78

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

***** Statistics Report *****

Plant Trans Factor for Pu

Sample size (N)	5000
No. missing	0
Minimum	3.58000000E-005
Maximum	0.0275
Std deviation	0.0017
Mean	0.0015
Geometric mean	NaN
Quadratic mean	0.0023
Harmonic mean	0.0007
Sum	7.5903
Absolute Sum	7.5903
Median	0.0010
Percentiles:	
10	0.0003
25	0.0005
50	0.0010
75	0.0018 ✓
90	0.0032
Quartiles:	
First quartile:	0.0005
Second quartile:	0.0010
Third quartile:	0.0018
95.00% Confidence Interval:	
lower limit	0.0015
upper limit	0.0016

***** The End *****

***** Statistics Report *****

Kd of Pu in C-Z

Sample size (N)	5000
No. missing	0
Minimum	0.9950
Maximum	888884.0000
Std deviation	25639.2325
Mean	5636.9318
Geometric mean	NaN
Quadratic mean	26249.0718
Harmonic mean	163.8473
Sum	28184659.2247
Absolute Sum	28184659.2247
Median	952.4420
Percentiles:	
10	84.4586
25	266.3835 (ANL=160)
50	952.4420
75	3410.1350
90	10756.2200
Quartiles:	
First quartile:	266.3835
Second quartile:	952.4420
Third quartile:	3410.1350
95.00% Confidence Interval:	
lower limit	4926.0895
upper limit	6347.7742

***** The End *****

***** Statistics Report *****

Kd of Pu in Sat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.9950
Maximum	888884.0000
Std deviation	25639.2325
Mean	5636.9318
Geometric mean	NaN
Quadratic mean	26249.0718
Harmonic mean	163.8473
Sum	28184659.2247
Absolute Sum	28184659.2247
Median	952.4420
Percentiles:	
10	84.4586
25	266.3835 (ANL=160)
50	952.4420
75	3410.1350
90	10756.2200
Quartiles:	
First quartile:	266.3835
Second quartile:	952.4420
Third quartile:	3410.1350
95.00% Confidence Interval:	
lower limit	4926.0895
upper limit	6347.7742

***** The End *****

***** Statistics Report *****

Kd of Pu in Unsat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.9950
Maximum	888884.0000
Std deviation	25639.2325
Mean	5636.9318
Geometric mean	NaN
Quadratic mean	26249.0718
Harmonic mean	163.8473
Sum	28184659.2247
Absolute Sum	28184659.2247
Median	952.4420
Percentiles:	
10	84.4586
25	266.3835 (ANL=160)
50	952.4420
75	3410.1350
90	10756.2200
Quartiles:	
First quartile:	266.3835
Second quartile:	952.4420
Third quartile:	3410.1350
95.00% Confidence Interval:	
lower limit	4926.0895
upper limit	6347.7742

***** The End *****

***** Statistics Report *****

Meat Trans Factor for Pu

Sample size (N)	5000
No. missing	0
Minimum	2.29000000E-005
Maximum	0.0004
Std deviation	4.59080030E-005
Mean	0.0001
Geometric mean	NaN
Quadratic mean	0.0001
Harmonic mean	9.21506036E-005
Sum	0.5430
Absolute Sum	0.5430
Median	1.00000000E-004
Percentiles:	
10	5.95000000E-005
25	7.61000000E-005
50	1.00000000E-004
75	0.0001
90	0.0002
Quartiles:	
First quartile:	7.61000000E-005
Second quartile:	1.00000000E-004
Third quartile:	0.0001
95.00% Confidence Interval:	
lower limit	0.0001
upper limit	0.0001

***** The End *****

***** Statistics Report *****

Well Pump Intake Depth

Sample size (N)	5000
No. missing	0
Minimum	10.0056
Maximum	49.9944
Std deviation	11.5483
<u>Mean</u>	<u>30.0000</u>
Geometric mean	NaN
Quadratic mean	32.1456
Harmonic mean	24.8532
Sum	150000.0759
Absolute Sum	150000.0759
Median	29.9919
Percentiles:	
10	13.9940
<u>25</u>	<u>19.9981</u> ✓
50	29.9919
<u>75</u>	<u>39.9983</u>
90	46.0044
Quartiles:	
First quartile:	19.9981
Second quartile:	29.9919
Third quartile:	39.9983
95.00% Confidence Interval:	
lower limit	29.6798
upper limit	30.3202

***** The End *****

***** Statistics Report *****

Sat Zone Hydraulic Conductivity

Sample size (N)	5000
No. missing	0
Minimum	15.7156
Maximum	909.4060
Std deviation	258.0881
Mean	462.5604
Geometric mean	NaN
Quadratic mean	529.6775
Harmonic mean	219.8750
Sum	2312801.7788
Absolute Sum	2312801.7788
Median	462.3790
Percentiles:	
10	104.8508
25	239.0330 ✓
50	462.3790
75	686.0087
90	820.2343
Quartiles:	
First quartile:	239.0330
Second quartile:	462.3790
Third quartile:	686.0087
95.00% Confidence Interval:	
lower limit	455.4049
upper limit	469.7158

***** The End *****

***** Statistics Report *****

Indoor Dust Filtration Fact

Sample size (N)	5000
No. missing	0
Minimum	0.1501
Maximum	0.9499
Std deviation	0.2310
Mean	0.5500
Geometric mean	NaN
Quadratic mean	0.5965
Harmonic mean	0.4334
Sum	2750.0015
Absolute Sum	2750.0015
Median	0.5498
Percentiles:	
10	0.2299
25	0.3500
50	0.5498
75	0.7500 ✓
90	0.8701
Quartiles:	
First quartile:	0.3500
Second quartile:	0.5498
Third quartile:	0.7500
95.00% Confidence Interval:	
lower limit	0.5436
upper limit	0.5564

***** The End *****

Contaminated Zone Dimensions
 Area: 10000.00 square meters
 Thickness: 1.00 meters
 Cover Depth: 0.00 meters

Initial Soil Concentrations, pCi/g
 Pu-239 1.000E+00

Total Dose TDOSE(t), mrem/yr
 Basic Radiation Dose Limit = 4.000E+00 mrem/yr

Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)
 M(t) = 0.000E+00 0.000E+00 0.000E+00 3.093E-11 5.736E-09 1.336E-01 3.934E-01 3.282E-01 0.000E+00

t (years):	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
TDOSE(t):	0.000E+00	0.000E+00	0.000E+00	1.237E-10	2.294E-08	5.343E-01	1.573E+00	1.313E+00	0.000E+00
M(t):	0.000E+00	0.000E+00	0.000E+00	3.093E-11	5.736E-09	1.336E-01	3.934E-01	3.282E-01	0.000E+00

Maximum TDOSE(t): 2.825E+00 mrem/yr at t = 556 ± 1 years

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 5.565E+02 years
 Water Independent Pathways (Inhalation excludes radon)

Radio-Nuclide	Ground	Inhalation	Radon	Plant	Meat	Milk	Soil
	mrem/yr	mrem/yr	mrem/yr	mrem/yr	mrem/yr	mrem/yr	mrem/yr
Pu-239	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Total	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 5.565E+02 years
 Water Dependent Pathways

Radio-Nuclide	Water	Fish	Radon	Plant	Meat	Milk	All Pathways*
	mrem/yr	mrem/yr	mrem/yr	mrem/yr	mrem/yr	mrem/yr	mrem/yr
Pu-239	2.825E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.825E+00
Total	2.825E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.825E+00

*Sum of all water independent and dependent pathways.

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years
 Water Independent Pathways (Inhalation excludes radon)

Radio-Nuclide	Ground	Inhalation	Radon	Plant	Meat	Milk	Soil
	mrem/yr	mrem/yr	mrem/yr	mrem/yr	mrem/yr	mrem/yr	mrem/yr
Pu-239	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Total	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

Dose/Source Ratios Summed Over All Pathways
 Parent and Progeny Principal Radionuclide Contributions Indicated

OParent (i)	Product (j)	Branch Fraction*	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA		0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
Pu-239	Pu-239	1.000E+00		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.343E-01	1.573E+00	1.313E+00	0.000E+00
Pu-239	U-235	1.000E+00		0.000E+00	0.000E+00	0.000E+00	1.143E-10	2.262E-08	1.954E-07	2.195E-07	7.470E-08	0.000E+00
Pu-239	Pa-231	1.000E+00		0.000E+00	0.000E+00	0.000E+00	2.126E-12	1.116E-10	4.871E-09	1.064E-08	6.584E-09	0.000E+00
Pu-239	Ac-227	1.000E+00		0.000E+00	0.000E+00	0.000E+00	7.284E-12	2.143E-10	1.135E-08	2.682E-08	1.782E-08	0.000E+00
Pu-239	ADSR(j)			0.000E+00	0.000E+00	0.000E+00	1.237E-10	2.294E-08	5.343E-01	1.573E+00	1.313E+00	0.000E+00
ffffff	ffffff	ffffff		ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

*Branch Fraction is the cumulative factor for the j't principal radionuclide daughter: CUMBRF(j) = BRF(1)*BRF(2)* ... BRF(j).
 The DSR includes contributions from associated (half-life 6 0.5 yr) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g
 Basic Radiation Dose Limit = 4.000E+00 mrem/yr

ONuclide (i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA		0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
Pu-239	*6.212E+10	*6.212E+10	*6.212E+10	*6.212E+10	3.233E+10	1.743E+08	7.487E+00	2.542E+00	3.047E+00	*6.212E+10
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)
 and Single Radionuclide Soil Guidelines G(i,t) in pCi/g
 at tmin = time of minimum single radionuclide soil guideline
 and at tmax = time of maximum total dose = 556 ± 1 years

ONuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Pu-239	1.000E+00	556 ± 1	2.825E+00	1.416E+00	2.825E+00	1.416E+00
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

Individual Nuclide Dose Summed Over All Pathways
 Parent Nuclide and Branch Fraction Indicated

ONuclide (j)	Parent (i)	BRF(i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA		0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
Pu-239	Pu-239	1.000E+00		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	5.343E-01	1.573E+00	1.313E+00	0.000E+00
OU-235	Pu-239	1.000E+00		0.000E+00	0.000E+00	0.000E+00	1.143E-10	2.262E-08	1.954E-07	2.195E-07	7.470E-08	0.000E+00
OPa-231	Pu-239	1.000E+00		0.000E+00	0.000E+00	0.000E+00	2.126E-12	1.116E-10	4.871E-09	1.064E-08	6.584E-09	0.000E+00
OAc-227	Pu-239	1.000E+00		0.000E+00	0.000E+00	0.000E+00	7.284E-12	2.143E-10	1.135E-08	2.682E-08	1.782E-08	0.000E+00
ffffff	ffffff	ffffff		ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

BRF(i) is the branch fraction of the parent nuclide.

Individual Nuclide Soil Concentration
 Parent Nuclide and Branch Fraction Indicated

ONuclide (j)	Parent (i)	BRF(i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA		0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04

1 RESRAD Regression and Correlation output 05/25/02 08:44

Title: SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

Input File : NEW PU239 DW.RAD

Sensitive Parameter Summary Table

Kd of Pu-239 in Unsaturated Zone 1 (-,-,-,-,-)

Kd of Pu-239 in Contaminated Zone (-,-,-,-,-)

Kd of Pu-239 in Saturated Zone (-,-,-,-,-)

Thickness of Unsaturated zone 1 (-,-,-,-)

Well pump intake depth (-,-,-,-)

Saturated zone hydraulic conductivity (-,-)

Kd of U-235 in Unsaturated Zone 1 (-,-)

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	5.248E+02	1.686E-01
2	1.096E+03	1.951E-01
3	5.248E+02	1.888E-01

1 RESRAD Regression and Correlation output 05/25/02 08:44 Page: Coef 1
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU239 DW.RAD

Coefficients for peak of mean dose time Dose Coefficient = Repetition =	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Thickness of Unsaturated zone 1	22 -0.07	26 -0.06	2 -0.50	2 -0.31
Evapotranspiration coefficient	61 0.00	62 0.00	10 -0.14	14 -0.08
Well pump intake depth	3 -0.16	8 -0.15	4 -0.26	5 -0.14
Meat transfer factor for U	20 -0.07	25 -0.06	9 -0.15	13 -0.08
Kd of Pa-231 in Unsaturated Zone 1	26 -0.05	30 -0.05	7 -0.16	11 -0.09
Kd of Pu-239 in Contaminated Zone	14 -0.08	19 -0.08	3 -0.32	3 -0.18
Kd of Pu-239 in Unsaturated Zone 1	25 -0.06	31 -0.05	1 -0.77	1 -0.65
Kd of Pu-239 in Saturated Zone	11 -0.10	14 -0.09	6 -0.25	7 -0.14
Kd of U-235 in Contaminated Zone	2 -0.18	6 -0.20	8 -0.16	12 -0.09
Kd of U-235 in Unsaturated Zone 1	34 -0.04	35 -0.04	5 -0.25	6 -0.14
R-SQUARE	0.25	0.25	0.73	0.73

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

1 RESRAD Regression and Correlation output 05/25/02 08:44 Page: Coef 2
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU239 DW.RAD

Coefficients for peak of mean dose time Dose Coefficient = Repetition =	PCC	SRC	PRCC	SRRC
	2	2	2	2
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Saturated zone effective porosity	8 -0.10	1 -0.33	9 -0.11	2 -0.48
Saturated zone hydraulic conductivity	1 -0.26	2 -0.25	5 -0.26	9 -0.15
Thickness of Unsaturated zone 1	3 -0.12	8 -0.11	2 -0.46	3 -0.29
Well pump intake depth	11 -0.09	16 -0.09	6 -0.25	11 -0.15
Wet weight crop yield of fruit, grain and non-leafy vegetables	59 -0.01	59 -0.01	7 -0.13	14 -0.07
Fish transfer factor for Pa	40 0.02	37 0.03	10 0.11	16 0.06
Kd of Pa-231 in Unsaturated Zone 1	58 0.01	57 0.01	8 -0.12	15 -0.07
Kd of Pu-239 in Contaminated Zone	14 -0.09	18 -0.08	3 -0.43	5 -0.27
Kd of Pu-239 in Unsaturated Zone 1	9 -0.10	13 -0.10	1 -0.74	1 -0.61
Kd of Pu-239 in Saturated Zone	10 -0.10	14 -0.09	4 -0.27	8 -0.16
R-SQUARE	0.22	0.22	0.69	0.69

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

1 RESRAD Regression and Correlation output 05/25/02 08:44 Page: Coef 3
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU239 DW.RAD

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

Description of Probabilistic Variable	PCC 3		SRC 3		PRCC 3		SRRC 3	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Saturated zone hydraulic conductivity	1	-0.16	7	-0.16	8	-0.15	15	-0.08
Thickness of Unsaturated zone 1	51	0.01	52	0.01	2	-0.52	6	-0.34
Well pump intake depth	7	-0.08	13	-0.08	9	-0.14	16	-0.08
Wet weight crop yield of fruit, grain and non-leafy vegetables	47	-0.02	48	-0.02	10	-0.12	17	-0.07
Saturated zone field capacity	8	0.08	14	0.07	6	0.18	12	0.10
Kd of Pu-239 in Contaminated Zone	12	-0.06	17	-0.07	3	-0.33	9	-0.19
Kd of Pu-239 in Unsaturated Zone 1	46	-0.02	32	-0.04	1	-0.75	1	-0.63
Kd of U-235 in Contaminated Zone	57	-0.01	57	-0.01	5	-0.25	11	-0.14
Kd of U-235 in Unsaturated Zone 1	53	-0.01	55	-0.01	7	-0.18	13	-0.10
	54	-0.01	54	-0.01	4	-0.25	10	-0.14
R-SQUARE		0.14		0.14		0.70		0.70

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

1 RESRAD Regression and Correlation output 05/25/02 08:44 Page: Coef 4
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU239 DW.RAD

Coefficients for peak All Pathways Dose
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC 1		SRC 1		PRCC 1		SRRC 1	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Saturated zone hydraulic conductivity	7	-0.10	12	-0.09	5	-0.22	10	-0.12
Thickness of Unsaturated zone 1	55	0.01	56	0.01	9	-0.16	14	-0.08
Contaminated zone erosion rate	21	-0.07	26	-0.06	6	-0.19	12	-0.10
Evapotranspiration coefficient	9	-0.10	15	-0.09	10	-0.14	15	-0.08
Saturated zone hydraulic gradient	28	-0.05	35	-0.04	8	-0.17	13	-0.09
Total Porosity of Unsaturated zone 1	40	-0.04	6	-0.25	7	0.17	1	0.71
Well pump intake depth	2	-0.18	7	-0.16	4	-0.23	9	-0.13
Kd of Pu-239 in Contaminated Zone	4	-0.14	9	-0.13	1	-0.72	3	-0.55
Kd of Pu-239 in Unsaturated Zone 1	58	-0.01	58	-0.01	3	-0.56	7	-0.36
Kd of Pu-239 in Saturated Zone	20	-0.07	25	-0.06	2	-0.57	6	-0.37
R-SQUARE		0.29		0.29		0.73		0.73

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

1 RESRAD Regression and Correlation output 05/25/02 08:44 Page: Coef 5
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

Coefficients for peak All Pathways Dose		PCC	SRC	PRCC	SRRC			
Coefficient =		2	2	2	2			
Repetition =								
Description of Probabilistic Variable		Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff			
Saturated zone hydraulic conductivity	5	-0.14	12	-0.13	6	-0.24	12	-0.13
Thickness of Unsaturated zone 1	13	-0.08	21	-0.07	5	-0.28	11	-0.16
Contaminated zone b parameter	6	0.13	14	0.12	7	0.17	13	0.09
Depth of soil mixing layer	18	0.07	25	0.06	9	0.14	16	0.08
Well pump intake depth	1	-0.15	8	-0.14	4	-0.32	10	-0.18
Precipitation	58	0.01	59	0.01	8	0.17	14	0.09
Fish transfer factor for Pu	28	-0.05	33	-0.04	10	0.14	17	0.08
Kd of Pu-239 in Contaminated Zone	3	-0.15	9	-0.14	1	-0.71	1	-0.54
Kd of Pu-239 in Unsaturated Zone 1	7	-0.13	13	-0.12	2	-0.56	5	-0.37
Kd of Pu-239 in Saturated Zone	4	-0.14	10	-0.14	3	-0.53	7	-0.34
R-SQUARE		0.22	0.22	0.71		0.71		0.71

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

1 RESRAD Regression and Correlation output 05/25/02 08:44 Page: Coef 6
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU239 DW.RAD

Coefficients for peak All Pathways Dose		PCC	SRC	PRCC	SRRC			
Coefficient =		3	3	3	3			
Repetition =								
Description of Probabilistic Variable		Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff			
Saturated zone hydraulic conductivity	1	-0.28	7	-0.27	4	-0.37	10	-0.21
Thickness of Unsaturated zone 1	47	0.02	48	0.02	7	-0.17	14	-0.09
Contaminated zone erosion rate	7	-0.09	14	-0.09	9	-0.15	16	-0.08
Saturated zone hydraulic gradient	11	-0.08	16	-0.07	8	-0.16	15	-0.09
b Parameter of Unsaturated zone 1	20	0.05	23	0.05	6	-0.24	12	-0.13
Well pump intake depth	2	-0.16	9	-0.14	5	-0.32	11	-0.18
Kd of Pa-231 in Contaminated Zone	60	0.01	56	0.01	10	0.14	17	0.07
Kd of Pu-239 in Contaminated Zone	4	-0.12	11	-0.12	1	-0.72	1	-0.55
Kd of Pu-239 in Unsaturated Zone 1	38	-0.02	25	-0.04	3	-0.51	5	-0.31
Kd of Pu-239 in Saturated Zone	10	-0.08	15	-0.08	2	-0.55	4	-0.35
R-SQUARE		0.20	0.20	0.73		0.73		0.73

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

***** Statistics Report *****

Kd of Pu in Unsat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.9950
Maximum	888884.0000
Std deviation	25639.2325
Mean	5636.9318
Geometric mean	NaN
Quadratic mean	26249.0718
Harmonic mean	163.8473
Sum	28184659.2247
Absolute Sum	28184659.2247
Median	952.4420
Percentiles:	
10	84.4586
25	266.3835 (ANL=160)
50	952.4420
75	3410.1350
90	10756.2200
Quartiles:	
First quartile:	266.3835
Second quartile:	952.4420
Third quartile:	3410.1350
95.00% Confidence Interval:	
lower limit	4926.0895
upper limit	6347.7742

***** The End *****

***** Statistics Report *****

Kd of Pu in C-Z

Sample size (N)	5000
No. missing	0
Minimum	0.9950
Maximum	888884.0000
Std deviation	25639.2325
Mean	5636.9318
Geometric mean	NaN
Quadratic mean	26249.0718
Harmonic mean	163.8473
Sum	28184659.2247
Absolute Sum	28184659.2247
Median	952.4420
Percentiles:	
10	84.4586
25	266.3835 (ANL=160)
50	952.4420
75	3410.1350
90	10756.2200
Quartiles:	
First quartile:	266.3835
Second quartile:	952.4420
Third quartile:	3410.1350
95.00% Confidence Interval:	
lower limit	4926.0895
upper limit	6347.7742

***** The End *****

***** Statistics Report *****

Kd of Pu in Sat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.9950
Maximum	888884.0000
Std deviation	25639.2325
Mean	5636.9318
Geometric mean	NaN
Quadratic mean	26249.0718
Harmonic mean	163.8473
Sum	28184659.2247
Absolute Sum	28184659.2247
Median	952.4420
Percentiles:	
10	84.4586
25	266.3835 (ANL=160)
50	952.4420
75	3410.1350
90	10756.2200
Quartiles:	
First quartile:	266.3835
Second quartile:	952.4420
Third quartile:	3410.1350
95.00% Confidence Interval:	
lower limit	4926.0895
upper limit	6347.7742

***** The End *****

***** Statistics Report *****

Thickness of Unsat Zone

Sample size (N)	5000
No. missing	0
Minimum	7.02000000E-005
Maximum	0.4999
Std deviation	0.1444
Mean	0.2500
Geometric mean	NaN
Quadratic mean	0.2887
Harmonic mean	0.0523
Sum	1250.0006
Absolute Sum	1250.0006
Median	0.2499
Percentiles:	
10	0.0499
25	0.1250 ✓
50	0.2499
75	0.3750
90	0.4501

Quartiles:	
First quartile:	0.1250
Second quartile:	0.2499
Third quartile:	0.3750

95.00% Confidence Interval:	
lower limit	0.2460
upper limit	0.2540

***** The End *****

***** Statistics Report *****

Well Pump Intake Depth

Sample size (N)	5000
No. missing	0
Minimum	10.0056
Maximum	49.9944
Std deviation	11.5483
Mean	30.0000
Geometric mean	NaN
Quadratic mean	32.1456
Harmonic mean	24.8532
Sum	150000.0759
Absolute Sum	150000.0759
Median	29.9919
Percentiles:	
10	13.9940
25	19.9981 ✓
50	29.9919
75	39.9983
90	46.0044
Quartiles:	
First quartile:	19.9981
Second quartile:	29.9919
Third quartile:	39.9983
95.00% Confidence Interval:	
lower limit	29.6798
upper limit	30.3202

***** The End *****

***** Statistics Report *****

Sat Zone Hydraulic Conductivity

Sample size (N)	5000
No. missing	0
Minimum	15.7156
Maximum	909.4060
Std deviation	258.0881
Mean	462.5604
Geometric mean	NaN
Quadratic mean	529.6775
Harmonic mean	219.8750
Sum	2312801.7788
Absolute Sum	2312801.7788
Median	462.3790
Percentiles:	
10	104.8508
25	239.0330 ✓
50	462.3790
75	686.0087
90	820.2343
Quartiles:	
First quartile:	239.0330
Second quartile:	462.3790
Third quartile:	686.0087
95.00% Confidence Interval:	
lower limit	455.4049
upper limit	469.7158

***** The End *****

***** Statistics Report *****

Kd of U in Unsat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0015
Maximum	10500000.0000
Std deviation	219309.2340
Mean	14088.8754
Geometric mean	NaN
Quadratic mean	219739.4302
Harmonic mean	1.2517
Sum	70444376.8780
Absolute Sum	70444376.8780
Median	126.2665
Percentiles:	
10	2.2844
25	15.3082 (ANL=16)
50	126.2665
75	1043.8750
90	6995.9760
Quartiles:	
First quartile:	15.3082
Second quartile:	126.2665
Third quartile:	1043.8750
95.00% Confidence Interval:	
lower limit	8008.5731
upper limit	20169.1777

***** The End *****

Contaminated Zone Dimensions Initial Soil Concentrations, pCi/g
 Area: 10000.00 square meters Pu-241 1.000E+00
 Thickness: 1.00 meters
 Cover Depth: 0.00 meters

0
 Total Dose TDOSE(t), mrem/yr
 Basic Radiation Dose Limit = 2.500E+01 mrem/yr
 Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)
 t (years): 0.000E+00 1.000E+00 3.000E+00 1.000E+01 3.500E+01 1.500E+02 3.000E+02 1.000E+03 1.000E+04
 TDOSE(t): 1.795E-02 1.860E-02 1.981E-02 2.313E-02 2.819E-02 2.560E-02 2.008E-02 5.044E-03 9.667E-11
 M(t): 7.179E-04 7.441E-04 7.923E-04 9.252E-04 1.128E-03 1.024E-03 8.030E-04 2.018E-04 3.867E-12
 OMaximum TDOSE(t): 2.885E-02 mrem/yr at t = 54.9 ± 0.1 years

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 5.495E+01 years
 Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pu-241	7.040E-04	0.0244	3.773E-04	0.0131	0.000E+00	0.0000	2.596E-02	0.8999	2.354E-04	0.0082	2.958E-05	0.0010	1.542E-03	0.0534
Total	7.040E-04	0.0244	3.773E-04	0.0131	0.000E+00	0.0000	2.596E-02	0.8999	2.354E-04	0.0082	2.958E-05	0.0010	1.542E-03	0.0534

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 5.495E+01 years
 Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pu-241	6.490E-12	0.0000	7.663E-15	0.0000	0.000E+00	0.0000	1.002E-12	0.0000	5.323E-14	0.0000	3.028E-13	0.0000	2.885E-02	1.0000
Total	6.490E-12	0.0000	7.663E-15	0.0000	0.000E+00	0.0000	1.002E-12	0.0000	5.323E-14	0.0000	3.028E-13	0.0000	2.885E-02	1.0000

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years
 Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Pu-241	1.053E-05	0.0006	2.360E-04	0.0131	0.000E+00	0.0000	1.643E-02	0.9154	2.857E-04	0.0159	9.563E-06	0.0005	9.758E-04	0.0544
Total	1.053E-05	0.0006	2.360E-04	0.0131	0.000E+00	0.0000	1.643E-02	0.9154	2.857E-04	0.0159	9.563E-06	0.0005	9.758E-04	0.0544

Dose/Source Ratios Summed Over All Pathways
 Parent and Progeny Principal Radionuclide Contributions Indicated

OParent (i)	Product (j)	Branch Fraction*	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA		AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Pu-241	Pu-241	1.000E+00		1.795E-02	1.708E-02	1.547E-02	1.095E-02	3.182E-03	1.082E-05	1.460E-08	7.802E-23	0.000E+00
Pu-241	Am-241	1.000E+00		0.000E+00	1.519E-03	4.331E-03	1.218E-02	2.501E-02	2.557E-02	2.005E-02	5.008E-03	9.246E-11
Pu-241	Np-237	1.000E+00		0.000E+00	3.149E-09	2.849E-08	2.860E-07	2.441E-06	1.520E-05	2.739E-05	3.649E-05	1.091E-13
Pu-241	U-233	1.000E+00		0.000E+00	7.471E-17	1.541E-15	4.599E-14	1.807E-12	5.198E-10	3.506E-09	1.207E-08	5.496E-18
Pu-241	Th-229	1.000E+00		0.000E+00	1.529E-20	1.111E-18	1.229E-16	1.369E-14	1.632E-12	1.020E-11	9.683E-11	4.104E-12
Pu-241	hDSR(j)			1.795E-02	1.860E-02	1.981E-02	2.313E-02	2.819E-02	2.560E-02	2.008E-02	5.044E-03	9.667E-11
OPu-241	Pu-241	2.450E-05		4.397E-07	4.185E-07	3.791E-07	2.683E-07	7.796E-08	2.650E-10	3.578E-13	1.912E-27	0.000E+00
Pu-241	Np-237	2.450E-05		0.000E+00	9.832E-11	2.863E-10	8.133E-10	1.696E-09	1.890E-09	1.690E-09	9.850E-10	0.000E+00
Pu-241	U-233	2.450E-05		0.000E+00	3.066E-18	2.209E-17	1.976E-16	3.066E-15	1.858E-13	4.738E-13	4.121E-13	0.000E+00
Pu-241	Th-229	2.450E-05		0.000E+00	8.987E-22	2.225E-20	7.291E-19	2.189E-17	5.187E-16	1.500E-15	4.557E-15	1.330E-16
Pu-241	hDSR(j)			4.397E-07	4.186E-07	3.794E-07	2.691E-07	7.966E-08	2.155E-09	1.691E-09	9.854E-10	1.330E-16
ffffff	ffffff	ffffff		ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

*Branch Fraction is the cumulative factor for the j't principal radionuclide daughter: CUMBRF(j) = BRF(1)*BRF(2)* ... BRF(j).
 The DSR includes contributions from associated (half-life 0.5 yr) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g
 Basic Radiation Dose Limit = 2.500E+01 mrem/yr

ONuclide (i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA		AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Pu-241		1.393E+03	1.344E+03	1.262E+03	1.081E+03	8.867E+02	9.766E+02	1.245E+03	4.956E+03	2.586E+11
ffffff		ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)
 and Single Radionuclide Soil Guidelines G(i,t) in pCi/g
 at tmin = time of minimum single radionuclide soil guideline
 and at tmax = time of maximum total dose = 54.9 ± 0.1 years

ONuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Pu-241	1.000E+00	54.9 ± 0.1	2.885E-02	8.666E+02	2.885E-02	8.666E+02
ffffff	ffffff	ffffff	ffffff	ffffff	ffffff	ffffff

Individual Nuclide Dose Summed Over All Pathways
 Parent Nuclide and Branch Fraction Indicated

ONuclide (j)	Parent (i)	BRF(i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA		AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Pu-241	Pu-241	1.000E+00		1.795E-02	1.708E-02	1.547E-02	1.095E-02	3.182E-03	1.082E-05	1.460E-08	7.802E-23	0.000E+00
Pu-241	Pu-241	2.450E-05		4.397E-07	4.185E-07	3.791E-07	2.683E-07	7.796E-08	2.650E-10	3.578E-13	1.911E-27	0.000E+00
Pu-241	hDOSE(j)			1.795E-02	1.708E-02	1.548E-02	1.095E-02	3.182E-03	1.082E-05	1.460E-08	7.803E-23	0.000E+00
OAm-241	Pu-241	1.000E+00		0.000E+00	1.519E-03	4.331E-03	1.218E-02	2.501E-02	2.557E-02	2.005E-02	5.008E-03	9.246E-11
ONp-237	Pu-241	1.000E+00		0.000E+00	3.149E-09	2.849E-08	2.860E-07	2.441E-06	1.520E-05	2.739E-05	3.649E-05	1.091E-13

1 RESRAD Regression and Correlation output 05/25/02 03:51

Title: SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

Input File : NEW PU241.RAD

Sensitive Parameter Summary Table

Plant transfer factor for Am (+,+,+,+,+,+)

Plant transfer factor for Pu (+,+,+)

Kd of Am-241 in Unsaturated Zone 1 (-,-,-,-,-)

Kd of Am-241 in Contaminated Zone (+,+,+)

Kd of Am-241 in Saturated Zone (-,-,-)

Meat transfer factor for Th (-)

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	1.738E+02	3.078E-02
2	5.754E+01	2.505E-02
3	8.318E+01	2.774E-02

1 RESRAD Regression and Correlation output 05/25/02 03:51 Page: Coef 1
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU241.RAD

Coefficients for peak of mean dose time Dose Coefficient = Repetition =	PCC	SRC	PRCC	SRRC
	1	1	1	1
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Kd of Am-241 in Contaminated Zone	63 -0.01	62 -0.01	3 0.35	7 0.18
Kd of Am-241 in Unsaturated Zone 1	34 -0.05	37 -0.05	2 -0.35	6 -0.18
Kd of Am-241 in Saturated Zone	55 -0.02	56 -0.02	4 -0.26	8 -0.13
Kd of U-233 in Saturated Zone	68 0.00	68 0.00	5 -0.20	10 -0.10
Thickness of Unsaturated zone 1	46 -0.04	47 -0.03	10 -0.14	18 -0.07
Field Capacity of Unsaturated zone 1	22 0.07	25 0.06	6 0.19	11 0.10
Plant transfer factor for Am	14 0.08	17 0.07	1 0.84	1 0.75
Plant transfer factor for Pu	24 0.06	26 0.06	7 0.16	13 0.08
Fish transfer factor for Pu	69 0.00	70 0.00	9 -0.15	15 -0.07
Fish transfer factor for U	37 -0.05	36 -0.05	8 0.15	14 0.07
R-SQUARE	0.22	0.22	0.77	0.77

-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.

1 RESRAD Regression and Correlation output 05/25/02 03:51 Page: Coef 2
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU241.RAD

Coefficients for peak of mean dose time Dose Coefficient = Repetition =	PCC	SRC	PRCC	SRRC
	2	2	2	2
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Density of contaminated zone	33 0.04	2 0.23	6 0.13	2 0.42
Kd of Am-241 in Contaminated Zone	37 -0.04	45 -0.03	2 0.30	7 0.14
Kd of Am-241 in Unsaturated Zone 1	68 -0.01	68 -0.01	3 -0.25	9 -0.12
Kd of Am-241 in Saturated Zone	23 -0.06	31 -0.05	5 -0.14	12 -0.06
Contaminated zone total porosity	46 -0.03	5 -0.16	8 -0.12	4 -0.37
Plant transfer factor for Am	1 0.56	1 0.55	1 0.88	1 0.83
Meat transfer factor for Am	40 -0.04	49 -0.03	9 -0.11	14 -0.05
Plant transfer factor for Th	52 0.02	57 0.02	10 0.11	15 0.05
Fish transfer factor for U	12 -0.08	21 -0.06	7 -0.12	13 -0.05
Kd of Np-237 in Contaminated Zone	67 0.01	67 0.01	4 0.15	11 0.07
R-SQUARE	0.43	0.43	0.80	0.80

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

1 RESRAD Regression and Correlation output 05/25/02 03:51 Page: Coef 3
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU241.RAD

Coefficients for peak of mean dose time Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		3		3		3		3	
Repetition =									
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	
Kd of Am-241 in Contaminated Zone	67	0.00	67	0.00	2	0.37	4	0.19	
Kd of Am-241 in Unsaturated Zone 1	42	-0.03	42	-0.03	3	-0.26	7	-0.13	
Kd of Am-241 in Saturated Zone	35	-0.05	38	-0.04	5	-0.21	10	-0.10	
Kd of U-233 in Contaminated Zone	66	-0.01	66	0.00	7	-0.12	15	-0.06	
Mass loading for inhalation	7	-0.11	15	-0.09	8	-0.12	16	-0.06	
Precipitation	19	-0.07	27	-0.06	9	-0.12	17	-0.05	
Saturated zone field capacity	49	0.02	50	0.02	6	0.13	14	0.06	
Plant transfer factor for Am	1	0.47	1	0.48	1	0.87	1	0.82	
Meat transfer factor for Th	30	-0.05	36	-0.05	4	-0.26	9	-0.13	
Kd of Np-237 in Contaminated Zone	20	-0.07	28	-0.06	10	-0.10	18	-0.05	
R-SQUARE		0.39		0.39		0.78		0.78	

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

1 RESRAD Regression and Correlation output 05/25/02 03:51 Page: Coef 4
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU241.RAD

Coefficients for peak All Pathways Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	
Kd of Am-241 in Contaminated Zone	46	-0.03	45	-0.03	7	-0.13	14	-0.07	
Kd of Am-241 in Unsaturated Zone 1	25	-0.05	27	-0.05	4	-0.20	11	-0.11	
Kd of Am-241 in Saturated Zone	54	-0.02	54	-0.02	3	-0.28	7	-0.16	
Saturated zone effective porosity	24	0.05	7	0.18	8	0.13	2	0.55	
Contaminated zone hydraulic conductivity	13	0.06	17	0.06	6	0.13	13	0.08	
Well pump intake depth	12	-0.07	16	-0.07	10	-0.11	16	-0.06	
Wind Speed	6	-0.11	11	-0.11	9	0.11	15	0.06	
Plant transfer factor for Am	26	0.05	29	0.05	1	0.74	1	0.61	
Meat transfer factor for Am	45	-0.03	48	-0.03	5	-0.16	12	-0.09	
Plant transfer factor for Pu	2	0.12	9	0.12	2	0.58	3	0.40	
R-SQUARE		0.18		0.18		0.69		0.69	

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

1 RESRAD Regression and Correlation output 05/25/02 03:51 Page: Coef 5
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

Input File : NEW PU241.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
Kd of Am-241 in Contaminated Zone	41 -0.03	47 -0.03	8 -0.14	13 -0.08
Kd of Am-241 in Unsaturated Zone 1	42 -0.03	49 -0.03	3 -0.32	9 -0.20
Kd of Am-241 in Saturated Zone	35 -0.04	41 -0.04	4 -0.29	10 -0.18
Kd of U-233 in Contaminated Zone	69 0.01	69 0.00	10 -0.12	14 -0.07
Saturated zone effective porosity	64 -0.02	32 -0.05	9 -0.13	2 -0.67
Saturated zone total porosity	43 0.03	6 0.20	7 0.14	1 0.67
Plant transfer factor for Am	1 0.40	3 0.37	1 0.69	3 0.56
Plant transfer factor for Pu	3 0.17	7 0.17	2 0.54	4 0.38
Plant transfer factor for U	23 -0.06	31 -0.06	5 -0.19	11 -0.11
Meat transfer factor for U	59 -0.02	63 -0.02	6 0.15	12 0.09
R-SQUARE	0.35	0.35	0.65	0.65

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

1 RESRAD Regression and Correlation output 05/25/02 03:51 Page: Coef 6
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU241.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
Kd of Am-241 in Contaminated Zone	68 0.00	69 0.00	10 -0.11	15 -0.06
Kd of Am-241 in Unsaturated Zone 1	23 -0.07	26 -0.06	3 -0.26	5 -0.16
Kd of Am-241 in Saturated Zone	39 -0.05	35 -0.04	4 -0.23	7 -0.14
Kd of Pu-241 in Saturated Zone	66 0.01	67 0.01	5 -0.14	10 -0.08
Kd of U-233 in Contaminated Zone	37 0.05	36 0.04	9 -0.11	14 -0.07
Thickness of Unsaturated zone 1	30 -0.05	33 -0.04	7 -0.11	12 -0.07
Plant transfer factor for Am	1 0.30	5 0.29	1 0.71	1 0.61
Fish transfer factor for Am	5 -0.13	11 -0.12	6 -0.13	11 -0.08
Plant transfer factor for Pu	3 0.27	7 0.23	2 0.53	2 0.38
Meat transfer factor for Th	47 -0.04	48 -0.03	8 -0.11	13 -0.07
R-SQUARE	0.36	0.36	0.65	0.65

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

***** Statistics Report *****

Plant Trans Factor for Am

Sample size (N)	5000
No. missing	0
Minimum	3.58000000E-005
Maximum	0.0275
Std deviation	0.0017
Mean	0.0015
Geometric mean	NaN
Quadratic mean	0.0023
Harmonic mean	0.0007
Sum	7.5903
Absolute Sum	7.5903
Median	0.0010
Percentiles:	
10	0.0003
25	0.0005
50	0.0010
75	0.0018 ✓
90	0.0032
Quartiles:	
First quartile:	0.0005
Second quartile:	0.0010
Third quartile:	0.0018
95.00% Confidence Interval:	
lower limit	0.0015
upper limit	0.0016

***** The End *****

***** Statistics Report *****

Plant Trans Factor for Pu

Sample size (N)	5000
No. missing	0
Minimum	3.58000000E-005
Maximum	0.0275
Std deviation	0.0017
Mean	0.0015
Geometric mean	NaN
Quadratic mean	0.0023
Harmonic mean	0.0007
Sum	7.5903
Absolute Sum	7.5903
Median	0.0010
Percentiles:	
10	0.0003
25	0.0005
50	0.0010
75	0.0018 ✓
90	0.0032
Quartiles:	
First quartile:	0.0005
Second quartile:	0.0010
Third quartile:	0.0018
95.00% Confidence Interval:	
lower limit	0.0015
upper limit	0.0016

***** The End *****

***** Statistics Report *****

Kd of Am in the Unsat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0156
Maximum	129000000.0000
Std deviation	2689400.6949
Mean	170733.0865
Geometric mean	NaN
Quadratic mean	2694546.2159
Harmonic mean	13.6103
Sum	853665432.4554
Absolute Sum	853665432.4554
Median	1448.6450
Percentiles:	
10	25.5448
25	173.2772 (ANL=1000)
50	1448.6450
75	12139.0000
90	82349.9400
Quartiles:	
First quartile:	173.2772
Second quartile:	1448.6450
Third quartile:	12139.0000
95.00% Confidence Interval:	
lower limit	96170.0191
upper limit	245296.1539

***** The End *****

***** Statistics Report *****

Kd of Am in Contaminated Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0156
Maximum	129000000.0000
Std deviation	2689400.6949
Mean	170733.0865 ✓
Geometric mean	NaN
Quadratic mean	2694546.2159
Harmonic mean	13.6103
Sum	853665432.4554
Absolute Sum	853665432.4554
Median	1448.6450
Percentiles:	
10	25.5448
25	173.2772
50	1448.6450
75	12139.0000
90	82349.9400
Quartiles:	
First quartile:	173.2772
Second quartile:	1448.6450
Third quartile:	12139.0000
95.00% Confidence Interval:	
lower limit	96170.0191
upper limit	245296.1539

***** The End *****

***** Statistics Report *****

Kd of Am in the Sat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0156
Maximum	129000000.0000
Std deviation	2689400.6949
Mean	170733.0865
Geometric mean	NaN
Quadratic mean	2694546.2159
Harmonic mean	13.6103
Sum	853665432.4554
Absolute Sum	853665432.4554
Median	1448.6450
Percentiles:	
10	25.5448
25	173.2772 (ANL=1000)
50	1448.6450
75	12139.0000
90	82349.9400
Quartiles:	
First quartile:	173.2772
Second quartile:	1448.6450
Third quartile:	12139.0000
95.00% Confidence Interval:	
lower limit	96170.0191
upper limit	245296.1539

***** The End *****

***** Statistics Report *****

Meat Trans for Th

Sample size (N)	5000
No. missing	0
Minimum	2.38000000E-006
Maximum	0.0041
Std deviation	0.0002
Variance	5.32633225E-008
Mean	0.0002
Geometric mean	NaN
Quadratic mean	0.0003
Harmonic mean	5.89861731E-005
Sum	0.8496
Absolute Sum	0.8496
Median	9.99500000E-005
Percentiles:	
10	2.67000000E-005
25	4.99250000E-005 ✓
50	9.99500000E-005
75	0.0002
90	0.0004
Quartiles:	
First quartile:	4.99250000E-005
Second quartile:	9.99500000E-005
Third quartile:	0.0002
95.00% Confidence Interval:	
lower limit	0.0002
upper limit	0.0002

***** The End *****

Summary : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

File : NEW PU241 DW.RAD

Contaminated Zone Dimensions

AAAAAAAAAAAAAAAAAAAAAAAAAAAA

Area: 10000.00 square meters

Thickness: 1.00 meters

Cover Depth: 0.00 meters

Initial Soil Concentrations, pCi/g

AAAAAAAAAAAAAAAAAAAAAAAAAAAA

Pu-241 1.000E+00

Total Dose TDOSE(t), mrem/yr

Basic Radiation Dose Limit = 4.000E+00 mrem/yr

Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)

AAAAAAAAAAAAAAAAAAAAAAAAAAAA

t (years):	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
TDOSE(t):	0.000E+00	0.000E+00	1.617E-11	9.664E-09	3.892E-07	3.212E-05	7.663E-05	8.293E-04	3.550E-13
M(t):	0.000E+00	0.000E+00	4.043E-12	2.416E-09	9.731E-08	8.030E-06	1.916E-05	2.073E-04	8.876E-14

Maximum TDOSE(t): 8.327E-04 mrem/yr at t = 950 ± 2 years

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 9.503E+02 years

Water Independent Pathways (Inhalation excludes radon)

Radio-Nuclide	Ground	Inhalation	Radon	Plant	Meat	Milk	Soil
	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.
Pu-241	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000
Total	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 9.503E+02 years

Water Dependent Pathways

Radio-Nuclide	Water	Fish	Radon	Plant	Meat	Milk	All Pathways*
	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.
Pu-241	8.327E-04 1.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	8.327E-04 1.0000
Total	8.327E-04 1.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	8.327E-04 1.0000

*Sum of all water independent and dependent pathways.

Summary : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

File : NEW PU241 DW.RAD

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years

Water Independent Pathways (Inhalation excludes radon)

Radio-Nuclide	Ground	Inhalation	Radon	Plant	Meat	Milk	Soil
	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.	mrem/yr fract.
Pu-241	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000
Total	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000	0.000E+00 0.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

Summary : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

File : NEW PU241 DW.RAD

Dose/Source Ratios Summed Over All Pathways
Parent and Progeny Principal Radionuclide Contributions Indicated

OParent (i)	Product (j)	Branch Fraction*	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA		0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
Pu-241	Pu-241	1.000E+00		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.540E-06	1.641E-08	3.257E-23
Pu-241	Am-241	1.000E+00		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.920E-05	6.544E-05	8.143E-04	0.000E+00
Pu-241	Np-237	1.000E+00		0.000E+00	0.000E+00	1.537E-11	9.612E-09	3.888E-07	5.380E-06	1.118E-05	1.495E-05	0.000E+00
Pu-241	U-233	1.000E+00		0.000E+00	0.000E+00	1.219E-20	3.846E-17	9.126E-12	9.552E-10	1.975E-09	1.178E-09	0.000E+00
Pu-241	Th-229	1.000E+00		0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.325E-22	3.652E-17	5.767E-15	1.711E-14	3.976E-13
Pu-241	↳DSR(j)			0.000E+00	0.000E+00	1.537E-11	9.612E-09	3.888E-07	3.212E-05	7.663E-05	8.293E-04	3.550E-13
OPu-241	Pu-241	2.450E-05		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.847E-10	4.019E-13	7.981E-28	0.000E+00
Pu-241	Np-237	2.450E-05		0.000E+00	0.000E+00	8.046E-13	5.232E-11	4.209E-10	8.359E-10	8.372E-10	4.951E-14	0.000E+00
Pu-241	U-233	2.450E-05		0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.833E-18	1.954E-14	1.836E-13	1.340E-13	5.480E-19
Pu-241	Th-229	2.450E-05		0.000E+00	0.000E+00	0.000E+00	0.000E+00	6.628E-24	8.009E-20	1.395E-18	1.598E-18	2.814E-17
Pu-241	↳DSR(j)			0.000E+00	0.000E+00	8.046E-13	5.232E-11	4.209E-10	1.021E-09	8.378E-10	4.954E-14	1.106E-17
iiiiiii	iiiiiii	iiiiiii		iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

*Branch Fraction is the cumulative factor for the j't principal radionuclide daughter: CUMBRF(j) = BRF(1)*BRF(2)* ... BRF(j).
The DSR includes contributions from associated (half-life 6 0.5 yr) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g
Basic Radiation Dose Limit = 4.000E+00 mrem/yr

ONuclide (i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA		0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
Pu-241	*1.030E+14	*1.030E+14	2.473E+11	4.139E+08	1.028E+07	1.245E+05	5.220E+04	4.823E+03	1.127E+13	
iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)
and Single Radionuclide Soil Guidelines G(i,t) in pCi/g
at tmin = time of minimum single radionuclide soil guideline
and at tmax = time of maximum total dose = 950 ± 2 years

ONuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Pu-241	1.000E+00	950 ± 2	8.327E-04	4.804E+03	8.327E-04	4.804E+03
iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

Summary : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

File : NEW PU241 DW.RAD

Individual Nuclide Dose Summed Over All Pathways
Parent Nuclide and Branch Fraction Indicated

ONuclide (j)	Parent (i)	BRF(i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA		0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
Pu-241	Pu-241	1.000E+00		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.540E-06	1.641E-08	3.257E-23
Pu-241	Pu-241	2.450E-05		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.847E-10	4.019E-13	7.981E-28	0.000E+00
Pu-241	↳DOSE(j)			0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	7.540E-06	1.641E-08	3.257E-23	0.000E+00
OAm-241	Pu-241	1.000E+00		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.920E-05	6.544E-05	8.143E-04	0.000E+00
ONp-237	Pu-241	1.000E+00		0.000E+00	0.000E+00	1.537E-11	9.612E-09	3.888E-07	5.380E-06	1.118E-05	1.495E-05	0.000E+00
Np-237	Pu-241	2.450E-05		0.000E+00	0.000E+00	8.046E-13	5.232E-11	4.209E-10	8.359E-10	8.372E-10	4.951E-14	0.000E+00
Np-237	↳DOSE(j)			0.000E+00	0.000E+00	1.617E-11	9.664E-09	3.892E-07	5.381E-06	1.118E-05	1.495E-05	0.000E+00

1 RESRAD Regression and Correlation output 05/25/02 05:22

Title: SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

Input File : NEW PU241 DW.RAD

Sensitive Parameter Summary Table

Kd of Am-241 in Unsaturated Zone 1 (-,-,-,-,-)

Thickness of Unsaturated zone 1 (-,-,-,-,-)

Kd of Am-241 in Contaminated Zone (-,-,-,-)

Kd of Am-241 in Saturated Zone (-,-,-)

Well pump intake depth (-,-,-,-,-)

Saturated zone hydraulic conductivity (-,-,-,-)

Kd of Np-237 in Unsaturated Zone 1 (-,-,-,-)

Kd of Np-237 in Contaminated Zone (-,-,-,-)

Kd of Pu-241 in Contaminated Zone (-)

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	1.738E+02	1.179E-02
2	3.000E+02	3.702E-03
3	1.202E+02	7.326E-03

1 RESRAD Regression and Correlation output 05/25/02 05:22 Page: Coef 1
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU241 DW.RAD

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

Description of Probabilistic Variable	PCC 1		SRC 1		PRCC 1		SRRC 1	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Kd of Am-241 in Contaminated Zone	60	-0.01	60	-0.01	6	-0.24	10	-0.16
Kd of Am-241 in Unsaturated Zone 1	32	-0.05	35	-0.05	1	-0.55	3	-0.44
Kd of Am-241 in Saturated Zone	56	-0.02	57	-0.02	10	-0.17	14	-0.12
Saturated zone hydraulic conductivity	8	-0.09	13	-0.09	8	-0.23	12	-0.16
Thickness of Unsaturated zone 1	45	-0.04	47	-0.03	3	-0.29	7	-0.20
Well pump intake depth	13	-0.08	17	-0.07	5	-0.26	9	-0.18
Fish transfer factor for Np	42	-0.04	38	-0.04	9	-0.22	13	-0.15
Kd of Np-237 in Contaminated Zone	59	0.02	59	0.02	4	-0.29	8	-0.20
Kd of Np-237 in Unsaturated Zone 1	53	0.03	54	0.03	2	-0.31	4	-0.22
Kd of Np-237 in Saturated Zone	70	0.00	69	0.00	7	-0.23	11	-0.16
R-SQUARE	0.22		0.22		0.56		0.56	

-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.

1 RESRAD Regression and Correlation output 05/25/02 05:22 Page: Coef 2
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU241 DW.RAD

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

Description of Probabilistic Variable	PCC 2		SRC 2		PRCC 2		SRRC 2	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Kd of Am-241 in Unsaturated Zone 1	33	-0.05	36	-0.05	1	-0.71	2	-0.60
Kd of Pu-241 in Contaminated Zone	31	-0.05	34	-0.05	10	-0.16	17	-0.10
Saturated zone effective porosity	41	-0.03	17	-0.09	9	-0.16	1	-0.81
Saturated zone hydraulic conductivity	29	-0.06	32	-0.05	2	-0.33	6	-0.21
Thickness of Unsaturated zone 1	3	0.13	10	0.12	3	-0.33	7	-0.21
Saturated zone hydraulic gradient	71	0.00	71	0.00	7	-0.18	16	-0.11
Well pump intake depth	11	-0.09	19	-0.08	4	-0.28	9	-0.18
Contaminated zone field capacity	12	0.09	20	0.08	6	0.20	14	0.12
Kd of Np-237 in Contaminated Zone	59	0.01	60	0.01	8	-0.18	15	-0.11
Kd of Np-237 in Unsaturated Zone 1	34	-0.04	15	-0.10	5	-0.25	12	-0.16
R-SQUARE	0.27		0.27		0.65		0.65	

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

1 RESRAD Regression and Correlation output 05/25/02 05:22 Page: Coef 3
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU241 DW.RAD

Coefficients for peak of mean dose time Dose				
Coefficient =	PCC	SRC	PRCC	SRRC
Repetition =	3	3	3	3
Description of Probabilistic Variable	Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Kd of Am-241 in Contaminated Zone	21 -0.07	23 -0.08	5 -0.29	10 -0.19
Kd of Am-241 in Unsaturated Zone 1	44 -0.03	46 -0.03	1 -0.58	1 -0.44
Saturated zone hydraulic conductivity	20 -0.07	31 -0.07	6 -0.23	12 -0.15
Thickness of Unsaturated zone 1	60 -0.01	60 -0.01	3 -0.34	7 -0.22
Well pump intake depth	2 -0.13	10 -0.12	7 -0.22	13 -0.14
Wet weight crop yield of fruit, grain and non-leafy vegetables	23 0.07	33 0.06	10 -0.16	16 -0.10
Mass loading for inhalation	4 -0.12	12 -0.11	9 -0.19	14 -0.12
Kd of Np-237 in Contaminated Zone	24 -0.07	32 -0.06	4 -0.30	8 -0.20
Kd of Np-237 in Unsaturated Zone 1	47 -0.03	50 -0.02	2 -0.39	4 -0.27
Kd of Np-237 in Saturated Zone	14 0.08	20 0.08	8 -0.19	15 -0.12
R-SQUARE	0.19	0.19	0.62	0.62

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

1 RESRAD Regression and Correlation output 05/25/02 05:22 Page: Coef 4
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU241 DW.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
Kd of Am-241 in Contaminated Zone	41 -0.04	43 -0.04	3 -0.49	3 -0.27
Kd of Am-241 in Unsaturated Zone 1	21 -0.06	23 -0.06	1 -0.78	1 -0.61
Kd of Am-241 in Saturated Zone	55 -0.02	56 -0.02	2 -0.61	2 -0.37
Saturated zone hydraulic conductivity	7 -0.10	11 -0.10	5 -0.29	7 -0.15
Thickness of Unsaturated zone 1	66 0.01	67 0.01	7 -0.25	10 -0.13
Evapotranspiration coefficient	40 0.04	44 0.04	10 -0.15	16 -0.07
Well pump intake depth	11 -0.07	16 -0.07	4 -0.32	5 -0.16
Fish transfer factor for U	25 -0.05	24 -0.06	9 0.17	15 0.08
Kd of Np-237 in Contaminated Zone	69 0.00	69 0.00	6 -0.28	8 -0.14
Kd of Np-237 in Unsaturated Zone 1	67 -0.01	68 -0.01	8 -0.19	14 -0.09
R-SQUARE	0.17	0.17	0.77	0.77

-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.

1 RESRAD Regression and Correlation output 05/25/02 05:22 Page: Coef 5
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

Coefficients for peak All Pathways Dose
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Kd of Am-241 in Contaminated Zone	46	-0.03	51	-0.03	3	-0.53	5	-0.31
Kd of Am-241 in Unsaturated Zone 1	38	-0.04	42	-0.04	1	-0.78	2	-0.62
Kd of Am-241 in Saturated Zone	36	-0.04	40	-0.04	2	-0.58	4	-0.34
Kd of Pu-241 in Contaminated Zone	52	-0.03	55	-0.03	7	-0.26	10	-0.13
Kd of Pu-241 in Unsaturated Zone 1	14	0.08	11	0.12	10	-0.15	14	-0.07
Saturated zone effective porosity	63	-0.01	35	-0.05	8	-0.20	1	-0.84
Saturated zone hydraulic conductivity	18	-0.07	25	-0.06	4	-0.39	7	-0.21
Thickness of Unsaturated zone 1	31	0.05	37	0.05	6	-0.31	9	-0.16
Saturated zone hydraulic gradient	30	0.05	36	0.05	9	-0.19	12	-0.09
Well pump intake depth	27	-0.05	33	-0.05	5	-0.31	8	-0.16
R-SQUARE		0.23		0.23		0.77		0.77

-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.

1 RESRAD Regression and Correlation output 05/25/02 05:22 Page: Coef 6
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW PU241 DW.RAD

Coefficients for peak All Pathways Dose
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Kd of Am-241 in Contaminated Zone	38	-0.04	34	-0.05	3	-0.51	6	-0.30
Kd of Am-241 in Unsaturated Zone 1	23	-0.07	26	-0.07	1	-0.76	1	-0.57
Kd of Am-241 in Saturated Zone	39	-0.04	40	-0.04	2	-0.61	4	-0.38
Kd of Pu-241 in Contaminated Zone	54	-0.03	50	-0.03	9	-0.14	16	-0.07
Kd of Pu-241 in Unsaturated Zone 1	53	0.03	56	0.03	7	-0.18	12	-0.09
Saturated zone hydraulic conductivity	28	-0.05	32	-0.05	4	-0.34	8	-0.18
Thickness of Unsaturated zone 1	32	-0.05	38	-0.04	5	-0.33	9	-0.17
Hydraulic Conductivity of Unsaturated zone 1	15	0.08	21	0.08	10	0.14	15	0.07
Well pump intake depth	2	-0.17	7	-0.16	6	-0.29	11	-0.15
Wet weight crop yield of fruit, grain and non-leafy vegetables	20	0.07	27	0.07	8	-0.15	14	-0.08
R-SQUARE		0.26		0.26		0.76		0.76

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

***** Statistics Report *****

Kd of Am in the Unsat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0156
Maximum	129000000.0000
Std deviation	2689400.6949
Mean	170733.0865
Geometric mean	NaN
Quadratic mean	2694546.2159
Harmonic mean	13.6103
Sum	853665432.4554
Absolute Sum	853665432.4554
Median	1448.6450
Percentiles:	
10	25.5448
25	173.2772 (ANL=1000)
50	1448.6450
75	12139.0000
90	82349.9400
Quartiles:	
First quartile:	173.2772
Second quartile:	1448.6450
Third quartile:	12139.0000
95.00% Confidence Interval:	
lower limit	96170.0191
upper limit	245296.1539

***** The End *****

***** Statistics Report *****

Thickness of Unsat Zone

Sample size (N)	5000
No. missing	0
Minimum	7.02000000E-005
Maximum	0.4999
Std deviation	0.1444
Mean	0.2500
Geometric mean	NaN
Quadratic mean	0.2887
Harmonic mean	0.0523
Sum	1250.0006
Absolute Sum	1250.0006
Median	0.2499
Percentiles:	
10	0.0499
25	0.1250 ✓
50	0.2499
75	0.3750
90	0.4501

Quartiles:	
First quartile:	0.1250
Second quartile:	0.2499
Third quartile:	0.3750

95.00% Confidence Interval:	
lower limit	0.2460
upper limit	0.2540

***** The End *****

***** Statistics Report *****

Kd of Am in Contaminated Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0156
Maximum	129000000.0000
Std deviation	2689400.6949
Mean	170733.0865
Geometric mean	NaN
Quadratic mean	2694546.2159
Harmonic mean	13.6103
Sum	853665432.4554
Absolute Sum	853665432.4554
Median	1448.6450
Percentiles:	
10	25.5448
25	173.2772 (ANL=1000)
50	1448.6450
75	12139.0000
90	82349.9400
Quartiles:	
First quartile:	173.2772
Second quartile:	1448.6450
Third quartile:	12139.0000
95.00% Confidence Interval:	
lower limit	96170.0191
upper limit	245296.1539

***** The End *****

***** Statistics Report *****

Kd of Am in the Sat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0156
Maximum	129000000.0000
Std deviation	2689400.6949
Mean	170733.0865
Geometric mean	NaN
Quadratic mean	2694546.2159
Harmonic mean	13.6103
Sum	853665432.4554
Absolute Sum	853665432.4554
Median	1448.6450
Percentiles:	
10	25.5448
25	173.2772 (ANL=1000)
50	1448.6450
75	12139.0000
90	82349.9400
Quartiles:	
First quartile:	173.2772
Second quartile:	1448.6450
Third quartile:	12139.0000
95.00% Confidence Interval:	
lower limit	96170.0191
upper limit	245296.1539

***** The End *****

***** Statistics Report *****

Well Pump Intake Depth

Sample size (N)	5000
No. missing	0
Minimum	10.0056
Maximum	49.9944
Std deviation	11.5483
Mean	30.0000
Geometric mean	NaN
Quadratic mean	32.1456
Harmonic mean	24.8532
Sum	150000.0759
Absolute Sum	150000.0759
Median	29.9919
Percentiles:	
10	13.9940
25	19.9981 ✓
50	29.9919
75	39.9983
90	46.0044
Quartiles:	
First quartile:	19.9981
Second quartile:	29.9919
Third quartile:	39.9983
95.00% Confidence Interval:	
lower limit	29.6798
upper limit	30.3202

***** The End *****

***** Statistics Report *****

Sat Zone Hydraulic Conductivity

Sample size (N)	5000
No. missing	0
Minimum	15.7156
Maximum	909.4060
Std deviation	258.0881
Mean	462.5604
Geometric mean	NaN
Quadratic mean	529.6775
Harmonic mean	219.8750
Sum	2312801.7788
Absolute Sum	2312801.7788
Median	462.3790
Percentiles:	
10	104.8508
25	239.0330 ✓
50	462.3790
75	686.0087
90	820.2343
Quartiles:	
First quartile:	239.0330
Second quartile:	462.3790
Third quartile:	686.0087
95.00% Confidence Interval:	
lower limit	455.4049
upper limit	469.7158

***** The End *****

*****Statistics Report*****

Kd of Np-237 in Unsat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0048
Maximum	58697.1000
Std deviation	1472.4221
Mean	209.5689
Geometric mean	NaN
Quadratic mean	1487.1154
Harmonic mean	1.4423
Sum	1047844.3914
Absolute Sum	1047844.3914
Median	17.0960
Percentiles:	
10	0.9556
25	3.7512 ✓
50	17.0960
75	78.0438
90	306.3746

Quartiles:	
First quartile:	3.7512
Second quartile:	17.0960
Third quartile:	78.0438

95.00% Confidence Interval:	
lower limit	168.7463
upper limit	250.3915

***** The End *****

***** Statistics Report *****

Kd of Np-237 in Cont Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0048
Maximum	58697.1000
Std deviation	1472.4221
Mean	209.5689
Geometric mean	NaN
Quadratic mean	1487.1154
Harmonic mean	1.4423
Sum	1047844.3914
Absolute Sum	1047844.3914
Median	17.0960
Percentiles:	
10	0.9556
25	3.7512 ✓
50	17.0960
75	78.0438
90	306.3746
Quartiles:	
First quartile:	3.7512
Second quartile:	17.0960
Third quartile:	78.0438
95.00% Confidence Interval:	
lower limit	168.7463
upper limit	250.3915

***** The End *****

***** Statistics Report *****

Kd of Pu in C-Z

Sample size (N)	5000
No. missing	0
Minimum	0.9950
Maximum	888884.0000
Std deviation	25639.2325
Mean	5636.9318
Geometric mean	NaN
Quadratic mean	26249.0718
Harmonic mean	163.8473
Sum	28184659.2247
Absolute Sum	28184659.2247
Median	952.4420
Percentiles:	
10	84.4586
25	266.3835 (ANL=160)
50	952.4420
75	3410.1350
90	10756.2200
Quartiles:	
First quartile:	266.3835
Second quartile:	952.4420
Third quartile:	3410.1350
95.00% Confidence Interval:	
lower limit	4926.0895
upper limit	6347.7742

***** The End *****

Contaminated Zone Dimensions
 Area: 10000.00 square meters
 Thickness: 1.00 meters
 Cover Depth: 0.00 meters

Initial Soil Concentrations, pCi/g
 Sr-90 1.000E+00

Total Dose TDOSE(t), mrem/yr
 Basic Radiation Dose Limit = 2.500E+01 mrem/yr
 Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)
 t (years): 0.000E+00 1.000E+00 3.000E+00 1.000E+01 3.500E+01 1.500E+02 3.000E+02 1.000E+03 1.000E+04
 TDOSE(t): 2.048E+01 1.998E+01 1.903E+01 1.603E+01 8.719E+00 5.285E-01 1.331E-02 3.448E-10 0.000E+00
 M(t): 8.192E-01 7.994E-01 7.611E-01 6.411E-01 3.488E-01 2.114E-02 5.323E-04 1.379E-11 0.000E+00
 OMaximum TDOSE(t): 2.048E+01 mrem/yr at t = 0.000E+00 years

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years
 Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	1.414E-02	0.0007	3.701E-05	0.0000	0.000E+00	0.0000	1.185E+01	0.5785	5.375E+00	0.2625	3.241E+00	0.1582	2.153E-03	0.0001
Total	1.414E-02	0.0007	3.701E-05	0.0000	0.000E+00	0.0000	1.185E+01	0.5785	5.375E+00	0.2625	3.241E+00	0.1582	2.153E-03	0.0001

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years
 Water Dependent Pathways

Radio- Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.048E+01	1.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.048E+01	1.0000

Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 1.000E+00 years
 Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	1.380E-02	0.0007	3.612E-05	0.0000	0.000E+00	0.0000	1.156E+01	0.5785	5.245E+00	0.2625	3.162E+00	0.1582	2.101E-03	0.0001
Total	1.380E-02	0.0007	3.612E-05	0.0000	0.000E+00	0.0000	1.156E+01	0.5785	5.245E+00	0.2625	3.162E+00	0.1582	2.101E-03	0.0001

Dose/Source Ratios Summed Over All Pathways
 Parent and Progeny Principal Radionuclide Contributions Indicated

Parent (i)	Product (j)	Branch Fraction*	t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Sr-90	Sr-90	1.000E+00	2.048E+01	1.998E+01	1.903E+01	1.603E+01	8.719E+00	5.285E-01	1.331E-02	3.448E-10	0.000E+00
iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

*Branch Fraction is the cumulative factor for the j't principal radionuclide daughter: CUMBRF(j) = BRF(1)*BRF(2)* ... BRF(j).
 The DSR includes contributions from associated (half-life < 0.5 yr) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g
 Basic Radiation Dose Limit = 2.500E+01 mrem/yr

ONuclide (i)	t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Sr-90	1.221E+00	1.251E+00	1.314E+00	1.560E+00	2.867E+00	4.731E+01	1.879E+03	7.251E+10	*1.365E+14
iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)
 and Single Radionuclide Soil Guidelines G(i,t) in pCi/g
 at tmin = time of minimum single radionuclide soil guideline
 and at tmax = time of maximum total dose = 0.000E+00 years

ONuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Sr-90	1.000E+00	0.000E+00	2.048E+01	1.221E+00	2.048E+01	1.221E+00
iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

Individual Nuclide Dose Summed Over All Pathways
 Parent Nuclide and Branch Fraction Indicated

ONuclide (j)	Parent (i)	BRF(i)	t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Sr-90	Sr-90	1.000E+00	2.048E+01	1.998E+01	1.903E+01	1.603E+01	8.719E+00	5.285E-01	1.331E-02	3.448E-10	0.000E+00
iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

BRF(i) is the branch fraction of the parent nuclide.

Individual Nuclide Soil Concentration
 Parent Nuclide and Branch Fraction Indicated

ONuclide (j)	Parent (i)	BRF(i)	t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Sr-90	Sr-90	1.000E+00	1.000E+00	9.758E-01	9.291E-01	7.826E-01	4.241E-01	2.531E-02	6.406E-04	2.266E-11	0.000E+00
iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

BRF(i) is the branch fraction of the parent nuclide.

ORESCALC.EXE execution time = 0.55 seconds

1 RESRAD Regression and Correlation output 05/19/02 20:07

Title: SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

Input File : NEW SR90.RAD

Sensitive Parameter Summary Table

Plant transfer factor for Sr (+,+,+,+,+,+)

Meat transfer factor for Sr (+,+,+,+,+,+)

Milk transfer factor for Sr (+,+,+,+,+,+)

Kd of Sr-90 in Contaminated Zone (+,+,+)

1RESRAD, Version 6.1 T_{1/2} Limit = 0.5 year 05/19/2002 20:04 Page 22
 Probabilistic results summary : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 one File: NEW SR90.RAD

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	0.000E+00	1.554E+01
2	0.000E+00	1.615E+01
3	0.000E+00	1.569E+01

1 RESRAD Regression and Correlation output 05/19/02 20:07 Page: Coef 1
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW SR90.RAD

Coefficients for peak of mean dose time Dose Coefficient = Repetition =	PCC		SRC		PRCC		SRRC	
	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Kd of Sr-90 in Contaminated Zone	31	0.02	32	0.00	4	0.36	8	0.03
Thickness of evasion layer of C-14 in soil	9	0.06	16	0.01	7	-0.11	14	-0.01
Contaminated zone total porosity	16	-0.05	5	-0.04	10	0.08	6	0.04
Density of Unsaturated zone 1	22	-0.04	6	-0.03	9	0.09	5	0.05
Effective Porosity of Unsaturated zone 1	36	0.01	13	0.01	6	-0.11	4	-0.06
Inhalation rate	23	0.03	26	0.00	8	0.09	15	0.01
Contaminated zone field capacity	21	-0.04	25	0.00	5	0.12	12	0.01
Plant transfer factor for Sr	1	0.99	1	0.99	1	1.00	1	0.99
Meat transfer factor for Sr	2	0.55	2	0.08	2	0.79	2	0.09
Milk transfer factor for Sr	3	0.44	3	0.06	3	0.67	3	0.06
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 variation in the dependent variable (Dose) explained by regression on the independent variables.

1 RESRAD Regression and Correlation output 05/19/02 20:07 Page: Coef 2
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW SR90.RAD

Coefficients for peak of mean dose time Dose Coefficient = Repetition =	PCC		SRC		PRCC		SRRC	
	2		2		2		2	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Kd of Sr-90 in Contaminated Zone	31	0.02	32	0.00	4	0.29	4	0.02
Saturated zone hydraulic conductivity	34	-0.01	35	0.00	10	0.07	12	0.01
Thickness of evasion layer of C-14 in soil	37	-0.01	38	0.00	9	0.07	11	0.01
Runoff coefficient	7	0.07	14	0.01	8	-0.07	10	-0.01
Contaminated zone field capacity	27	0.02	29	0.00	7	0.08	9	0.01
Precipitation	40	-0.01	40	0.00	6	-0.08	8	-0.01
Field Capacity of Unsaturated zone 1	14	-0.04	20	0.00	5	-0.12	7	-0.01
Plant transfer factor for Sr	1	1.00	1	0.99	1	1.00	1	0.99
Meat transfer factor for Sr	2	0.41	3	0.04	2	0.78	2	0.09
Milk transfer factor for Sr	3	0.32	5	0.03	3	0.68	3	0.07

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 variation in the dependent variable (Dose) explained by regression on the independent variables.

1 RESRAD Regression and Correlation output 05/19/02 20:07 Page: Coef 3
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW SR90.RAD

Coefficients for peak of mean dose time Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		3		3		3		3	
Repetition =									
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	
Density of saturated zone	14	-0.05	5	-0.05	10	0.06	4	0.03	
Kd of Sr-90 in Contaminated Zone	30	0.03	33	0.00	4	0.31	6	0.02	
Depth of soil mixing layer	23	0.03	26	0.00	9	0.07	16	0.01	
Wet weight crop yield of fruit, grain and non-leafy vegetables	35	0.02	38	0.00	7	-0.08	14	-0.01	
Wind Speed	4	0.10	8	0.01	8	-0.08	15	-0.01	
Well pumping rate	8	0.06	14	0.01	6	-0.09	13	-0.01	
Saturated zone field capacity	25	-0.03	29	0.00	5	0.10	12	0.01	
Plant transfer factor for Sr	1	0.99	1	0.98	1	1.00	1	0.99	
Meat transfer factor for Sr	2	0.62	2	0.10	2	0.75	2	0.08	
Milk transfer factor for Sr	3	0.38	3	0.05	3	0.65	3	0.06	

R-SQUARE 0.98 0.98 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 variation in the dependent variable (Dose) explained by regression on the independent variables.

1 RESRAD Regression and Correlation output 05/19/02 20:07 Page: Coef 4
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW SR90.RAD

Coefficients for peak All Pathways Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff	
Saturated zone effective porosity	9	-0.06	7	-0.03	25	-0.02	6	-0.03	
Thickness of evasion layer of C-14 in soil	6	0.07	12	0.01	34	-0.01	35	0.00	
Indoor dust filtration factor	5	0.09	11	0.01	15	0.04	21	0.01	
Weathering removal constant of all vegetation	7	-0.06	14	-0.01	16	-0.04	22	-0.01	
Well pump intake depth	4	-0.12	10	-0.02	8	-0.07	15	-0.01	
Wet foliar interception fraction of leafy vegetables	10	0.06	15	0.01	21	0.03	27	0.00	
External gamma shielding factor	8	0.06	13	0.01	11	0.06	17	0.01	
Plant transfer factor for Sr	1	0.99	1	0.99	1	0.99	1	0.98	
Meat transfer factor for Sr	2	0.52	2	0.08	2	0.51	2	0.10	
Milk transfer factor for Sr	3	0.42	3	0.06	3	0.37	4	0.06	

R-SQUARE 0.98 0.98 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 variation in the dependent variable (Dose) explained by regression on the independent variables.

1 RESRAD Regression and Correlation output 05/19/02 20:07 Page: Coef 5
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW SR90.RAD

Coefficients for peak All Pathways Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		2		2		2		2	
Repetition =									
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Depth of roots		4	0.10	10	0.01	10	-0.06	16	-0.01
Kd of Sr-90 in Unsaturated Zone 1		32	-0.02	31	0.00	6	-0.11	10	-0.02
Kd of Sr-90 in Saturated Zone		41	0.00	42	0.00	4	-0.17	5	-0.03
Contaminated zone hydraulic conductivity		34	-0.01	35	0.00	5	-0.12	9	-0.02
Saturated zone hydraulic gradient		17	-0.04	19	-0.01	9	-0.07	15	-0.01
Well pumping rate		29	-0.02	29	0.00	8	0.08	14	0.01
Field Capacity of Unsaturated zone 1		15	-0.04	18	-0.01	7	-0.10	11	-0.01
Plant transfer factor for Sr		1	0.99	1	0.99	1	0.99	1	0.98
Meat transfer factor for Sr		2	0.35	3	0.05	2	0.52	2	0.09
Milk transfer factor for Sr		3	0.26	7	0.03	3	0.43	3	0.07
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 variation in the dependent variable (Dose) explained by regression on the independent variables.

1 RESRAD Regression and Correlation output 05/19/02 20:07 Page: Coef 6
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW SR90.RAD

Coefficients for peak All Pathways Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		3		3		3		3	
Repetition =									
Description of Probabilistic Variable		Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Kd of Sr-90 in Saturated Zone		7	-0.06	15	-0.01	4	-0.14	7	-0.03
Saturated zone total porosity		9	0.05	3	0.06	37	-0.01	13	-0.02
Thickness of Unsaturated zone 1		8	-0.06	16	-0.01	15	-0.04	23	-0.01
Contaminated zone hydraulic conductivity		10	0.05	17	0.01	30	-0.01	35	0.00
b Parameter of Unsaturated zone 1		5	-0.07	13	-0.01	43	0.00	43	0.00
Wind Speed		4	0.10	12	0.01	14	-0.04	22	-0.01
Contaminated zone field capacity		6	-0.07	14	-0.01	10	-0.07	18	-0.01
Plant transfer factor for Sr		1	0.99	1	0.98	1	0.98	1	0.98
Meat transfer factor for Sr		2	0.54	2	0.09	2	0.42	2	0.08
Milk transfer factor for Sr		3	0.33	4	0.05	3	0.33	3	0.06
R-SQUARE			0.98		0.98		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 variation in the dependent variable (Dose) explained by regression on the independent variables.

***** Statistics Report *****

Plant Trans Factor for Sr

Sample size (N)	5000
No. missing	0
Minimum	0.0082
Maximum	10.9510
Std deviation	0.6337
Mean	0.4931
Geometric mean	NaN
Quadratic mean	0.8029
Harmonic mean	0.1842
Sum	2465.7187
Absolute Sum	2465.7187
Median	0.3010
Percentiles:	
10	0.0843
25	0.1541
50	0.3010
75	0.5885 ✓
90	1.0763
Quartiles:	
First quartile:	0.1541
Second quartile:	0.3010
Third quartile:	0.5885
95.00% Confidence Interval:	
lower limit	0.4756
upper limit	0.5107

***** The End *****

***** Statistics Report *****

Meat Trans Factor for Sr

Sample size (N)	5000
No. missing	0
Minimum	0.0023
Maximum	0.0431
Std deviation	0.0046
Mean	0.0108
Geometric mean	NaN
Quadratic mean	0.0117
Harmonic mean	0.0092
Sum	54.0215
Absolute Sum	54.0215
Median	0.0099
Percentiles:	
10	0.0059
25	0.0076
50	0.0099
75	0.0131 ✓
90	0.0167
Quartiles:	
First quartile:	0.0076
Second quartile:	0.0099
Third quartile:	0.0131
95.00% Confidence Interval:	
lower limit	0.0107
upper limit	0.0109

***** The End *****

***** Statistics Report *****

Milk Trans Factor for Sr

Sample size (N)	5000
No. missing	0
Minimum	0.0004
Maximum	0.0110
Std deviation	0.0011
Mean	0.0022
Geometric mean	NaN
Quadratic mean	0.0025
Harmonic mean	0.0018
Sum	11.2196
Absolute Sum	11.2196
Median	0.0020
Percentiles:	
10	0.0011
25	0.0015
50	0.0020
75	0.0028 ✓
90	0.0037
Quartiles:	
First quartile:	0.0015
Second quartile:	0.0020
Third quartile:	0.0028
95.00% Confidence Interval:	
lower limit	0.0022
upper limit	0.0023

***** The End *****

***** Statistics Report *****

Kd of Sr in Con Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0143
Maximum	67496.2000
Std deviation	1769.2917
Mean	292.6665 ✓
Geometric mean	NaN
Quadratic mean	1793.1595
Harmonic mean	3.4770
Sum	1463332.4329
Absolute Sum	1463332.4329
Median	31.4661
Percentiles:	
10	2.0778
25	7.5366
50	31.4661
75	131.5785
90	477.2922
Quartiles:	
First quartile:	7.5366
Second quartile:	31.4661
Third quartile:	131.5785
95.00% Confidence Interval:	
lower limit	243.6132
upper limit	341.7197

***** The End *****

Contaminated Zone Dimensions Initial Soil Concentrations, pCi/g
 Area: 10000.00 square meters Sr-90 1.000E+00
 Thickness: 1.00 meters
 Cover Depth: 0.00 meters

0
 Total Dose TDOSE(t), mrem/yr
 Basic Radiation Dose Limit = 4.000E+00 mrem/yr
 Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)
 t (years): 0.000E+00 1.000E+00 3.000E+00 1.000E+01 3.500E+01 1.500E+02 3.000E+02 1.000E+03 1.000E+04
 TDOSE(t): 0.000E+00 0.000E+00 0.000E+00 1.724E-01 5.019E-01 3.966E-02 6.607E-05 6.818E-18 0.000E+00
 M(t): 0.000E+00 0.000E+00 0.000E+00 4.309E-02 1.255E-01 9.914E-03 1.652E-05 1.704E-18 0.000E+00
 OMaximum TDOSE(t): 5.025E-01 mrem/yr at t = 36.49 ± 0.07 years

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 3.649E+01 years
 Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 3.649E+01 years
 Water Dependent Pathways

Radio- Nuclide Nuclide	Water		Fish		Radon		Plant		Meat		Milk		All Pathways*	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	5.025E-01	1.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.025E-01	1.0000
Total	5.025E-01	1.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	5.025E-01	1.0000

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)
 As mrem/yr and Fraction of Total Dose At t = 0.000E+00 years
 Water Independent Pathways (Inhalation excludes radon)

Radio- Nuclide Nuclide	Ground		Inhalation		Radon		Plant		Meat		Milk		Soil	
	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.	mrem/yr	fract.
Sr-90	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000
Total	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	0.000E+00	0.0000

0
 Total Dose Contributions TDOSE(i,p,t) for Individual Radionuclides (i) and Pathways (p)

Dose/Source Ratios Summed Over All Pathways
 Parent and Progeny Principal Radionuclide Contributions Indicated

Parent (i)	Product (j)	Branch Fraction*	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA		AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Sr-90	Sr-90	1.000E+00		0.000E+00	0.000E+00	0.000E+00	1.724E-01	5.019E-01	3.966E-02	6.607E-05	6.818E-18	0.000E+00
iiiiiii	iiiiiii	iiiiiii		iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

*Branch Fraction is the cumulative factor for the j't principal radionuclide daughter: CUMBRF(j) = BRF(1)*BRF(2)* ... BRF(j).
 The DSR includes contributions from associated (half-life > 0.5 yr) daughters.

Single Radionuclide Soil Guidelines G(i,t) in pCi/g
 Basic Radiation Dose Limit = 4.000E+00 mrem/yr

ONuclide (i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA		AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Sr-90		*1.365E+14	*1.365E+14	*1.365E+14	2.321E+01	7.970E+00	1.009E+02	6.054E+04	*1.365E+14	*1.365E+14
iiiiiii		iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

*At specific activity limit

Summed Dose/Source Ratios DSR(i,t) in (mrem/yr)/(pCi/g)
 and Single Radionuclide Soil Guidelines G(i,t) in pCi/g
 at tmin = time of minimum single radionuclide soil guideline
 and at tmax = time of maximum total dose = 36.49 ± 0.07 years

ONuclide (i)	Initial (pCi/g)	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Sr-90	1.000E+00	36.49 ± 0.07	5.025E-01	7.961E+00	5.025E-01	7.961E+00
iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

Individual Nuclide Dose Summed Over All Pathways
 Parent Nuclide and Branch Fraction Indicated

ONuclide (j)	Parent (i)	BRF(i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA		AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Sr-90	Sr-90	1.000E+00		0.000E+00	0.000E+00	0.000E+00	1.724E-01	5.019E-01	3.966E-02	6.607E-05	6.818E-18	0.000E+00
iiiiiii	iiiiiii	iiiiiii		iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

BRF(i) is the branch fraction of the parent nuclide.

Individual Nuclide Soil Concentration
 Parent Nuclide and Branch Fraction Indicated

ONuclide (j)	Parent (i)	BRF(i)	t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.500E+01	1.500E+02	3.000E+02	1.000E+03	1.000E+04
AAAAAAA	AAAAAAA	AAAAAAA		AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA	AAAAAAA
Sr-90	Sr-90	1.000E+00		1.000E+00	9.586E-01	8.809E-01	6.552E-01	2.276E-01	1.759E-03	3.095E-06	4.323E-19	0.000E+00
iiiiiii	iiiiiii	iiiiiii		iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii	iiiiiii

BRF(i) is the branch fraction of the parent nuclide.

ORESCALC.EXE execution time = 1.37 seconds

1 RESRAD Regression and Correlation output 05/19/02 20:11

Title: SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

Input File : NEW SR90 DW.RAD

Sensitive Parameter Summary Table

Kd of Sr-90 in Unsaturated Zone 1 (-,-,-,-,-)

Kd of Sr-90 in Contaminated Zone (-,-,-,-,-)

Thickness of Unsaturated zone 1 (-,-,-,-,-)

Kd of Sr-90 in Saturated Zone (-,-,-)

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

Repetition	Time of peak mean dose Years	Peak mean dose mrem/yr
1	1.318E+01	1.576E-01
2	1.318E+01	1.748E-01
3	1.905E+01	1.436E-01

1 RESRAD Regression and Correlation output 05/19/02 20:11 Page: Coef 1
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW SR90 DW.RAD

Coefficients for peak of mean dose time Dose		PCC	SRC	PRCC	SRRC
Coefficient =	Repetition =	1	1	1	1
Description of Probabilistic Variable		Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Kd of Sr-90 in Contaminated Zone		17 -0.05	20 -0.05	4 -0.22	9 -0.13
Kd of Sr-90 in Unsaturated Zone 1		14 -0.05	16 -0.05	1 -0.80	1 -0.73
Kd of Sr-90 in Saturated Zone		20 -0.03	24 -0.03	3 -0.23	8 -0.13
Saturated zone effective porosity		33 -0.01	21 -0.05	7 0.10	2 0.46
Thickness of Unsaturated zone 1		8 -0.07	12 -0.06	2 -0.46	4 -0.29
Evapotranspiration coefficient		31 0.02	34 0.02	9 -0.10	15 -0.05
Runoff coefficient		21 0.03	25 0.03	8 -0.10	14 -0.05
b Parameter of Unsaturated zone 1		28 0.02	31 0.02	10 0.09	16 0.05
Humidity in air		13 -0.05	17 -0.05	6 -0.11	13 -0.06
Well pumping rate		36 -0.01	37 -0.01	5 -0.12	12 -0.06
R-SQUARE		0.09	0.09	0.70	0.70

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

1 RESRAD Regression and Correlation output 05/19/02 20:11 Page: Coef 2
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW SR90 DW.RAD

Coefficients for peak of mean dose time Dose		PCC	SRC	PRCC	SRRC
Coefficient =	Repetition =	2	2	2	2
Description of Probabilistic Variable		Sig Coeff	Sig Coeff	Sig Coeff	Sig Coeff
Kd of Sr-90 in Contaminated Zone		25 -0.03	27 -0.03	3 -0.25	10 -0.15
Kd of Sr-90 in Unsaturated Zone 1		22 -0.03	26 -0.03	1 -0.79	1 -0.73
Kd of Sr-90 in Saturated Zone		15 -0.05	19 -0.04	4 -0.17	11 -0.10
Saturated zone effective porosity		38 -0.01	24 -0.04	9 0.09	4 0.38
Saturated zone total porosity		31 0.02	6 0.15	10 -0.09	5 -0.37
Thickness of Unsaturated zone 1		6 -0.07	12 -0.07	2 -0.44	6 -0.28
Density of Unsaturated zone 1		41 -0.01	21 -0.04	8 0.10	3 0.43
Effective Porosity of Unsaturated zone 1		13 0.05	1 0.35	6 -0.15	2 -0.65
Well pump intake depth		40 -0.01	41 -0.01	7 -0.14	14 -0.08
Precipitation		27 0.03	31 0.03	5 0.16	12 0.09
R-SQUARE		0.08	0.08	0.68	0.68

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

1 RESRAD Regression and Correlation output 05/19/02 20:11 Page: Coef 3
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW SR90 DW.RAD

Coefficients for peak of mean dose time Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		3		3		3		3	
Repetition =									
Description of Probabilistic Variable	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	
Density of contaminated zone	33	0.01	10	0.06	6	-0.12	2	-0.45	
Kd of Sr-90 in Contaminated Zone	18	-0.03	21	-0.03	3	-0.32	7	-0.18	
Kd of Sr-90 in Unsaturated Zone 1	23	-0.02	26	-0.02	1	-0.80	1	-0.74	
Kd of Sr-90 in Saturated Zone	17	-0.04	19	-0.04	4	-0.22	8	-0.12	
Thickness of Unsaturated zone 1	2	-0.11	5	-0.11	2	-0.46	4	-0.28	
Contaminated zone hydraulic conductivity	25	-0.02	28	-0.02	10	-0.09	16	-0.05	
Contaminated zone total porosity	42	0.00	36	-0.01	7	0.12	3	0.45	
Evapotranspiration coefficient	19	0.03	22	0.03	8	-0.11	14	-0.06	
Precipitation	37	0.01	40	0.01	5	0.12	13	0.07	
Field Capacity of Unsaturated zone 1	30	0.01	32	0.01	9	0.10	15	0.05	
R-SQUARE			0.08		0.08		0.70		0.70

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

1 RESRAD Regression and Correlation output 05/19/02 20:11 Page: Coef 4
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW SR90 DW.RAD

Coefficients for peak All Pathways Dose		PCC		SRC		PRCC		SRRC	
Coefficient =		1		1		1		1	
Repetition =									
Description of Probabilistic Variable	Sig	Coef	Sig	Coef	Sig	Coef	Sig	Coef	
Kd of Sr-90 in Contaminated Zone	9	-0.06	14	-0.06	2	-0.68	2	-0.44	
Kd of Sr-90 in Unsaturated Zone 1	7	-0.06	12	-0.06	1	-0.77	1	-0.59	
Kd of Sr-90 in Saturated Zone	15	-0.05	19	-0.05	3	-0.64	3	-0.40	
Saturated zone hydraulic conductivity	2	-0.10	6	-0.09	7	-0.12	13	-0.06	
Thickness of Unsaturated zone 1	20	-0.03	23	-0.03	4	-0.41	7	-0.21	
Well pump intake depth	1	-0.12	5	-0.12	5	-0.22	11	-0.11	
Humidity in air	26	-0.03	29	-0.02	8	0.10	15	0.05	
Mass loading for inhalation	16	0.04	20	0.04	9	0.09	16	0.04	
Precipitation	30	0.02	33	0.02	6	0.17	12	0.08	
Well pumping rate	34	-0.01	37	-0.01	10	0.09	17	0.04	
R-SQUARE			0.08		0.08		0.77		0.77

-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.

1 RESRAD Regression and Correlation output 05/19/02 20:11 Page: Coef 5
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone

Coefficients for peak All Pathways Dose
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	2		2		2		2	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Depth of roots	27	0.02	31	0.02	10	0.07	15	0.03
Kd of Sr-90 in Contaminated Zone	15	-0.04	19	-0.04	2	-0.72	2	-0.48
Kd of Sr-90 in Unsaturated Zone 1	8	-0.05	13	-0.05	1	-0.79	1	-0.60
Kd of Sr-90 in Saturated Zone	9	-0.05	14	-0.05	3	-0.60	3	-0.35
Thickness of Unsaturated zone 1	25	-0.03	29	-0.03	4	-0.40	4	-0.20
Evapotranspiration coefficient	12	-0.04	17	-0.04	6	-0.15	10	-0.07
Well pump intake depth	18	-0.03	23	-0.03	5	-0.20	9	-0.09
Contaminated zone field capacity	31	-0.02	35	-0.02	9	-0.08	13	-0.04
Precipitation	10	0.05	15	0.05	7	0.10	11	0.05
Saturated zone field capacity	33	-0.02	37	-0.02	8	0.10	12	0.05
R-SQUARE		0.07		0.07		0.79		0.79

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

1 RESRAD Regression and Correlation output 05/19/02 20:11 Page: Coef 6
 Title : SNEC Soil DCGLs (10000 m2) & 1 m Deep Contam. Zone
 Input File : NEW SR90 DW.RAD

Coefficients for peak All Pathways Dose
 Coefficient =
 Repetition =

Description of Probabilistic Variable	PCC		SRC		PRCC		SRRC	
	3		3		3		3	
	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Kd of Sr-90 in Contaminated Zone	8	-0.06	14	-0.06	2	-0.66	2	-0.43
Kd of Sr-90 in Unsaturated Zone 1	18	-0.04	23	-0.04	1	-0.78	1	-0.60
Kd of Sr-90 in Saturated Zone	15	-0.04	20	-0.04	3	-0.59	3	-0.36
Saturated zone hydraulic conductivity	1	-0.11	7	-0.11	7	-0.12	12	-0.06
Thickness of Unsaturated zone 1	3	-0.08	10	-0.08	4	-0.39	8	-0.21
Contaminated zone b parameter	7	-0.07	13	-0.06	8	-0.09	13	-0.04
Runoff coefficient	10	-0.05	16	-0.05	6	-0.13	11	-0.06
Well pump intake depth	4	-0.08	11	-0.08	5	-0.22	10	-0.11
Plant transfer factor for Sr	14	-0.05	18	-0.05	10	-0.08	15	-0.04
Fish transfer factor for Sr	34	0.02	36	0.02	9	-0.08	14	-0.04
R-SQUARE		0.09		0.09		0.77		0.77

-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.

***** Statistics Report *****

Kd for Sr in Unsat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0143
Maximum	67496.2000
Std deviation	1769.2917
Mean	292.6665
Geometric mean	NaN
Quadratic mean	1793.1595
Harmonic mean	3.4770
Sum	1463332.4329
Absolute Sum	1463332.4329
Median	31.4661
Percentiles:	
10	2.0778
25	7.5366 (ANL-11)
50	31.4661
75	131.5785
90	477.2922
Quartiles:	
First quartile:	7.5366
Second quartile:	31.4661
Third quartile:	131.5785
95.00% Confidence Interval:	
lower limit	243.6132
upper limit	341.7197

***** The End *****

***** Statistics Report *****

Kd of Sr in Con Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0143
Maximum	67496.2000
Std deviation	1769.2917
Mean	292.6665
Geometric mean	NaN
Quadratic mean	1793.1595
Harmonic mean	3.4770
Sum	1463332.4329
Absolute Sum	1463332.4329
Median	31.4661
Percentiles:	
10	2.0778
25	7.5366 (ANL=11)
50	31.4661
75	131.5785
90	477.2922
Quartiles:	
First quartile:	7.5366
Second quartile:	31.4661
Third quartile:	131.5785
95.00% Confidence Interval:	
lower limit	243.6132
upper limit	341.7197

***** The End *****

***** Statistics Report *****

Thickness of Unsat Zone

Sample size (N)	5000
No. missing	0
Minimum	7.02000000E-005
Maximum	0.4999
Std deviation	0.1444
Mean	0.2500
Geometric mean	NaN
Quadratic mean	0.2887
Harmonic mean	0.0523
Sum	1250.0006
Absolute Sum	1250.0006
Median	0.2499
Percentiles:	
10	0.0499
25	0.1250 ✓
50	0.2499
75	0.3750
90	0.4501

Quartiles:	
First quartile:	0.1250
Second quartile:	0.2499
Third quartile:	0.3750

95.00% Confidence Interval:	
lower limit	0.2460
upper limit	0.2540

***** The End *****

***** Statistics Report *****

Kd of Sr in Sat Zone

Sample size (N)	5000
No. missing	0
Minimum	0.0143
Maximum	67496.2000
Std deviation	1769.2917
Mean	292.6665
Geometric mean	NaN
Quadratic mean	1793.1595
Harmonic mean	3.4770
Sum	1463332.4329
Absolute Sum	1463332.4329
Median	31.4661
Percentiles:	
10	2.0778
25	7.5366 (ANL=11)
50	31.4661
75	131.5785
90	477.2922
Quartiles:	
First quartile:	7.5366
Second quartile:	31.4661
Third quartile:	131.5785
95.00% Confidence Interval:	
lower limit	243.6132
upper limit	341.7197

***** The End *****

RESRAD INPUT FOR SNEC SURFACE MODEL

Menu	Class	PARAMETERS	Basic	SNEC Range of Values		Assigned Distribution	Default Distribution
			RESRAD Input	Min.	Max.		
C14	P	Thickness of Soil Evasion Layer of C-14 In Soil (m)	0.3	0.2	0.6	Triangular	
D-5	P	Bioaccumulation Factors, Fresh Water	Default Values	Varies	Varies	Lognormal	
D-34	P	Food Transfer Factors	Default Values	Varies	Varies	Lognormal	
N/A	P	Contaminated Zone Effective Porosity	Not Used	0.28	0.54	N/A	
RO11	P	Area of Contaminated Zone (m^2)	10000	N/A	N/A	N/A	
RO11	NRC	Basic Radiation Dose Limit (mrem/yr) (NRC)	25	N/A	N/A	N/A	
RO11	P	Length Parallel to Aquifer Flow (m)	112.8	N/A	N/A	N/A	
RO11	P	Thickness of Contaminated Zone 1 (m)	1	N/A	N/A	N/A	
RO11	P	Time Since Placement of Materials (yr)	0	N/A	N/A	N/A	
RO11	P	Times for Calculations (yr)	1	N/A	N/A	N/A	
RO11	P	Times for Calculations (yr)	3	N/A	N/A	N/A	
RO11	P	Times for Calculations (yr)	10	N/A	N/A	N/A	
RO11	P	Times for Calculations (yr)	35	N/A	N/A	N/A	
RO11	P	Times for Calculations (yr)	150	N/A	N/A	N/A	
RO11	P	Times for Calculations (yr)	300	N/A	N/A	N/A	
RO11	P	Times for Calculations (yr)	1000	N/A	N/A	N/A	
RO11	P	Times for Calculations (yr)	10000	N/A	N/A	N/A	
RO13	P	Average Annual Wind Speed (m/sec)	4.07	3.13	4.83	Uniform	Bounded Lognormal-N (1 4 - 13)
RO13	P	Contaminated Zone Field Capacity	0.136	0.079	0.192	Uniform	None Assigned
RO13	P	Contaminated Zone b Parameter	5.6	4.05	7.12	Uniform	Bounded Lognormal-N (0 5 - 30)
RO13	P, B	Contaminated Zone Erosion Rate (m/yr)	0.000345	0.00009	0.0006	Loguniform	Continuous Logarithmic (5E-08 - 0 2)
RO13	P	Contaminated Zone Hydraulic Conductivity (m/yr)	32.3	0.362	25400	Loguniform	Bounded Lognormal-N (0.004 - 9250)
RO13	P	Contaminated Zone Total Porosity	0.46	0.35	0.56	Uniform	Truncated Normal, (0.157 - 0.693)
RO13	P	Cover Depth (m)	0	N/A	N/A	N/A	
RO13	P, B	Cover Depth Erosion Rate (m/yr)	Not Used	N/A	N/A	N/A	
RO13	P	Density of Contaminated Zone (g/cc)	1.6	1.28	1.92	Uniform	Truncated Normal (0 809 - 2.23)
RO13	P	Density of Cover Material (g/cc)	Not Used	N/A	N/A	N/A	
RO13	P	Evapotranspiration Coefficient (m/yr)	0.59	0.5	0.67	Uniform	Uniform (0 5 - 0 75)
RO13	P	Humidity in Air (g/m^3)	8	2.58E+00	2.03E+01	Truncated Lognormal-N	
RO13	B	Irrigation (m/yr)	0.2	---	---	None Assigned	
RO13	B	Irrigation Mode (Overhead)	Overhead	N/A	N/A	N/A	
RO13	P	Precipitation (m/yr)	0.936	0.688	1.327	Uniform	None Assigned
RO13	P	Runoff Coefficient	0.35	0.3	0.4	Uniform	Uniform (0.1 - 0.8)
RO13	P	Watershed Area for Nearby Stream or Pond (m^2)	5.00E+06	---	---	None Assigned	None Assigned
RO14	P	Density of Saturated Zone (g/cc)	1.6	1.28	1.92	Uniform	Truncated Normal (0 809 - 2.23)
RO14	P	Model: Non-dispersion (ND) or Mass-Balance (MB)	Non-Dispersion	N/A	N/A	N/A	
RO14	P	Saturated Zone b Parameter	Not Used	N/A	N/A	N/A	
RO14	P	Saturated Zone Effective Porosity	0.028	0.005	0.05	Loguniform	Truncated Normal (0 075 - 0 635)
RO14	P	Saturated Zone Hydraulic Conductivity (m/yr)	67.91	15.59	909.53	Uniform	Bounded Lognormal-N (0 004 - 9250)
RO14	P	Saturated Zone Hydraulic Gradient	0.02	0.013	0.03	Uniform	Bounded Lognormal-N (0.00007 - 0 5)
RO14	P	Saturated Zone Total Porosity	0.36	0.31	0.41	Uniform	Truncated Normal, (0.157 - 0.693)
RO14	P	Water Table Drop Rate (m/yr)	0	---	---	None Assigned	None Assigned
RO14	P	Well Pump Intake Depth (m)	30	10	50	Uniform	Triangular (6 -30)
RO14	B, P	Well Pumping Rate (m^3/yr)	286.2	207.3	365	Uniform	None Assigned
RO14	P	Saturated Zone Field Capacity	0.136	0.079	0.192	Uniform	None Assigned
RO15	P	Density of Unsaturated Zone 1 (g/cc)	1.6	1.28	1.92	Uniform	Truncated Normal (0.809 - 2 23)
RO15	P	Effective Porosity of Unsaturated Zone 1	0.41	0.28	0.54	Uniform	Truncated Normal (0 075 - 0.635)
RO15	P	Hydraulic Conductivity of Unsaturated Zone 1 (m/yr)	32.3	0.362	25400	Loguniform	Bounded Lognormal-N (0 004 - 9250)
RO15	P	Number of Unsaturated Zone Strata	1	N/A	N/A	N/A	N/A
RO15	P	Thickness of Unsaturated Zone 1 (m)	0.25	0	0.5	Uniform	Bounded Lognormal-N (0.18 - 320)

RO15	P	Total porosity of Unsaturated Zone 1	0.46	0.35	0.56	Uniform	Truncated Normal, (0 157 - 0 693)
RO15	P	Unsaturated Zone 1 b Parameter	5.6	4.05	7.12	Uniform	Bounded Lognormal-N (0 5 - 30)
RO15	P	Unsaturated Zone Field Capacity	0.136	0.079	0.192	Uniform	None Assigned
RO17	P	External Gamma Shielding Factor	0.7	4.400E-02	1	Bounded Lognormal-N	
RO17	P, B	Indoor Dust Filtration Factor	0.4	0.15	0.95	Uniform	
RO17	B	Indoor Time Fraction	0.66	0	1	Continuous Linear	
RO17	M, P	Inhalation Rate (m ³ /yr)	8400	4380	13100	Triangular	
RO17	P, B	Mass Loading for Inhalation (g/m ³)	0.0001	0	0.0001	Continuous Linear	
RO17	B	Fraction of Time Spent Outdoors	0.12	---	---	None Assigned	
RO18	B, P	Contaminated Fraction of Aquatic Food	1	0	1	Triangular	
RO18	B, P	Contaminated Fraction of Drinking Water	1	---	---	None Assigned	
RO18	B, P	Contaminated Fraction of Household Water	Not Used	N/A	N/A	N/A	
RO18	B, P	Contaminated Fraction of Irrigation Water	1	---	---	None Assigned	
RO18	B, P	Contaminated Fraction of Livestock Water	1	---	---	None Assigned	
RO18	B, P	Contaminated Fraction of Meat	1	---	---	None Assigned	
RO18	B, P	Contaminated Fraction of Milk	1	---	---	None Assigned	
RO18	B, P	Contaminated Fraction of Plant Food	1	---	---	None Assigned	
RO18	M, B	Drinking Water Intake (L/yr)	478.5	90.4	1860	Truncated Lognormal-N	
RO18	M, B	Fish Consumption (kg/yr)	20.6	---	---	None Assigned	
RO18	M, B	Fruit, Vegetable, and Grain Consumption (kg/yr)	111.8	136	318	Triangular	
RO18	M, B	Leafy Vegetable Consumption (kg/yr)	21.4	---	---	None Assigned	
RO18	M, B	Meat and Poultry Consumption (kg/yr)	67	---	---	None Assigned	
RO18	M, B	Milk Consumption	233	60	200	Triangular	
RO18	M, B	Other Seafood Consumption (kg/yr)	0.9	---	---	None Assigned	
RO18	M, B	Soil Ingestion Rate (g/yr)	18.3	0	36.5	Triangular	
RO19	M, B	Livestock Water Intake for Milk	60	---	---	None Assigned	
RO19	M, B	Depth of Roots (m)	0.9	0.3	1	Uniform	
RO19	M, B	Depth of Soil Mixing Layer (m)	0.15	0	0.6	Triangular	
RO19B	M, B	Weathering Removal Constant of all Vegetation	20	5.1	84	Triangular	
RO19B	M, B	Wet Crop Yield for Fodder (kg/m ²)	1.1	---	---	None Assigned	
RO19B	M, B	Wet Crop Yield for Leafy (kg/m ²)	1.5	---	---	None Assigned	
RO19B	M, B	Wet Crop Yield for Non-Leafy (kg/m ²)	0.7	0.397	7.72	Truncated Lognormal-N	
RO19B	M, B	Wet Foliar Inception Fraction of Leafy Vegetables	0.25	0.06	0.95	Triangular	
STOR	B	Storage Times for Livestock Fodder	0	---	---	None Assigned	

		<i>Distribution Coefficient for Americium & Curium</i>	<i>Value Used</i>	<i>ANL Min.</i>	<i>ANL Max.</i>	<i>Distribution Type</i>
R16	P	1. Contaminated Zone (cm ³ /g)	1000	1000	5000	RESRAD Default
R16	P	2. Unsaturated Zone (cm ³ /g)	1000	1000	5000	RESRAD Default
R16	P	3. Saturated Zone (cm ³ /g)	1000	1000	5000	RESRAD Default
		<i>Distribution Coefficient for Carbon</i>	<i>ANL Value</i>	<i>GPU Min.</i>	<i>GPU Max.</i>	<i>Distribution Type</i>
R16	P	1. Contaminated Zone (cm ³ /g)	~1	0	5	Uniform
R16	P	2. Unsaturated Zone (cm ³ /g)	~1	0	5	Uniform
R16	P	3. Saturated Zone (cm ³ /g)	~1	0	5	Uniform
		<i>Distribution Coefficient for Cesium</i>	<i>Value Used</i>	<i>ANL Min.</i>	<i>ANL Max.</i>	<i>Distribution Type</i>
R16	P	1. Contaminated Zone (cm ³ /g)	2131	2131	28341	RESRAD Default
R16	P	2. Unsaturated Zone (cm ³ /g)	2131	2131	28341	RESRAD Default
R16	P	3. Saturated Zone (cm ³ /g)	2131	2131	28341	RESRAD Default
		<i>Distribution Coefficient for Cobalt</i>	<i>Value Used</i>	<i>ANL Min.</i>	<i>ANL Max.</i>	<i>Distribution Type</i>
R16	P	1. Contaminated Zone (cm ³ /g)	200	200	1000	RESRAD Default
R16	P	2. Unsaturated Zone (cm ³ /g)	200	200	1000	RESRAD Default
R16	P	3. Saturated Zone (cm ³ /g)	200	200	1000	RESRAD Default
		<i>Distribution Coefficient for Europium</i>	<i>Value Used</i>	<i>ANL Min.</i>	<i>ANL Max.</i>	<i>Distribution Type</i>
R16	P	1. Contaminated Zone (cm ³ /g)	1000	1000	5000	RESRAD Default
R16	P	2. Unsaturated Zone (cm ³ /g)	1000	1000	5000	RESRAD Default
R16	P	3. Saturated Zone (cm ³ /g)	1000	1000	5000	RESRAD Default
		<i>Distribution Coefficient for Hydrogen</i>	<i>ANL Value (GPU)</i>	<i>GPU Min.</i>	<i>GPU Max.</i>	<i>Distribution Type</i>
R16	P	1. Contaminated Zone (cm ³ /g)	~1 (0.25)	0	0.5	Uniform
R16	P	2. Unsaturated Zone (cm ³ /g)	~1 (0.25)	0	0.5	Uniform
R16	P	3. Saturated Zone (cm ³ /g)	~1 (0.25)	0	0.5	Uniform
		<i>Distribution Coefficient for Iron</i>	<i>Value Used</i>	<i>GPU Min.</i>	<i>GPU Max.</i>	<i>Distribution Type</i>
R16	P	1. Contaminated Zone (cm ³ /g)	10000	10000	50000	RESRAD Default
R16	P	2. Unsaturated Zone (cm ³ /g)	10000	10000	50000	RESRAD Default
R16	P	3. Saturated Zone (cm ³ /g)	10000	10000	50000	RESRAD Default
		<i>Distribution Coefficient for Lead</i>	<i>Value Used</i>	<i>ANL Min.</i>	<i>ANL Max.</i>	<i>Distribution Type</i>
R16	P	1. Contaminated Zone (cm ³ /g)	9700	9700	160000	RESRAD Default
R16	P	2. Unsaturated Zone (cm ³ /g)	9700	9700	160000	RESRAD Default
R16	P	3. Saturated Zone (cm ³ /g)	9700	9700	160000	RESRAD Default
		<i>Distribution Coefficient for Nickel</i>	<i>Value Used</i>	<i>ANL Min.</i>	<i>ANL Max.</i>	<i>Distribution Type</i>
R16	P	1. Contaminated Zone (cm ³ /g)	1300	1300	10000	RESRAD Default
R16	P	2. Unsaturated Zone (cm ³ /g)	1300	1300	10000	RESRAD Default
R16	P	3. Saturated Zone (cm ³ /g)	1300	1300	10000	RESRAD Default
		<i>Distribution Coefficient for Plutonium</i>	<i>Value Used</i>	<i>ANL Min.</i>	<i>ANL Max.</i>	<i>Distribution Type</i>
R16	P	1. Contaminated Zone (cm ³ /g)	160	160	600	RESRAD Default
R16	P	2. Unsaturated Zone (cm ³ /g)	160	160	600	RESRAD Default
R16	P	3. Saturated Zone (cm ³ /g)	160	160	600	RESRAD Default
		<i>Distribution Coefficient for Strontium</i>	<i>Value Used</i>	<i>ANL Min.</i>	<i>ANL Max.</i>	<i>Distribution Type</i>
R16	P	1. Contaminated Zone (cm ³ /g)	11	11	475	RESRAD Default
R16	P	2. Unsaturated Zone (cm ³ /g)	11	11	475	RESRAD Default
R16	P	3. Saturated Zone (cm ³ /g)	11	11	475	RESRAD Default
		<i>Distribution Coefficient for Uranium</i>	<i>Value Used</i>	<i>ANL Min.</i>	<i>ANL Max.</i>	<i>Distribution Type</i>
R16	P	1. Contaminated Zone (cm ³ /g)	16	16	5200	RESRAD Default
R16	P	2. Unsaturated Zone (cm ³ /g)	16	16	5200	RESRAD Default
R16	P	3. Saturated Zone (cm ³ /g)	16	16	5200	RESRAD Default

NOTE: ANL Kd values may be "greater than" values. The ANL Min. value is the lowest reported value for this element and the ANL Max. value is the highest reported value.

NOTE: Items in RED type face are SNEC Input values.

NOTE: Items with BLUE background are D & D default values, while items with a YELLOW background are RESRAD default values. Unlisted parameters are RESRAD defaults.

SNEC SAMPLES ASSAYED FOR Kd VALUES AT ANL

	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Sample 7	Sample 8				
Location	River (composite) Sediment Sample	88GS SE Sump	South of Warehouse by Old Access Road	CV Area	CV Area, Near Switchyard	CV Area	CV Area	CV Area				
Material Type	Sediment	Construction Debris	Fly Ash & Cinders	Back-Fill Materials	Fill Soil	Clay Material	Weathered Bedrock	Unweathered Bedrock (crushed)				
Reference Grid No. & Coordinates	Bank Above Bridge & Off Tip Of Island	AV-133	AJ-131, 21' N by 2' W	AZ-129 14' W by 10' N	BA-129 1' N	BA-129 1' N by 2' W	AZ-128, 13' N	AZ-129, 15' N by 12 to 18' E				
Depth (Grade=811' El)	0' - 1' Below Sediment Surface	-787' El	-811'	-795'	-810 8'	-809 12'	-800'	-800'				
Elements									AVERAGE	SIGMA	Sigma as a %	Value Used
H	-1 (-1)	-1 (-1)	-1 (-1)	-1 (-1)	-1 (-1)	-1 (-1)	-1 (-1)	-1 (-1)	1	0	0.0%	1
C	-1 (-1)	-1 (-1)	-1 (-1)	-1 (-1)	-1 (-1)	-1 (-1)	-1 (-1)	-1 (-1)	1	0	0.0%	1
Cr	90 (28000)	53 (19000)	73 (75000)	160 (50000)	29 (950)	30 (7000)	137 (36000)	10 (1800)	18781	17843	95.0%	950
Cd	1300 (1300)	8300 (8300)	235 (200)	216 (200)	208 (200)	245 (200)	20 (20)	104 (250)	1334	2843	213.1%	20
Ni	29 (10000)	1 (10000)	42 (4000)	39 (10000)	37 (10000)	44 (10000)	2.5 (1300)	3.1 (1500)	7100	4082	57.5%	1300
Cu	14 (3300)	4 (10000)	18 (5800)	14 (5800)	16 (3000)	25 (10000)	8.7 (5700)	16 (10000)	6650	2960	44.5%	3000
Zr, Nb	590 (600)	77 (80)	530 (500)	530 (500)	480 (500)	530 (500)	440 (500)	530 (500)	480	157	34.2%	80
Sn	1000 (1000)	330 (1000)	625 (1000)	500 (1000)	800 (1000)	800 (1000)	700 (1000)	265 (1000)	1000	0	0.0%	1000
Tl	284 (284)	644 (644)	67 (67)	483 (483)	290 (290)	223 (223)	242 (242)	126 (126)	292	188	64.2%	67
Tc	8.1 (8.1)	54 (54)	54 (54)	8.6 (8.6)	1.4 (1.4)	1.6 (1.6)	1.3 (1.3)	1.3 (1.3)	16	23	144.1%	1
U	37 (37)	16 (16)	5200 (5200)	17 (17)	34 (34)	106 (106)	5200 (5200)	226 (226)	1355	2375	175.3%	16
Pu	600 (600)	160 (160)	800 (600)	427 (400)	427 (400)	427 (400)	600 (600)	427 (400)	445	152	34.1%	160
Y	300 (1000)	64 (1000)	600 (1000)	680 (1000)	652 (1000)	106 (1000)	222 (1000)	550 (1000)	1000	0	0.0%	1000
Ce, Eu	50 (1000)	18 (1000)	135 (1000)	118 (1000)	196 (1000)	40 (1000)	144 (1000)	224 (1000)	1000	0	0.0%	1000
Hg	46 (100)	15 (100)	88 (100)	90 (100)	148 (100)	23 (100)	62 (100)	145 (100)	100	0	0.0%	100
Co	207 (1000)	42 (1000)	195 (200)	375 (1000)	59 (1000)	78 (1000)	113 (1000)	291 (1000)	900	283	31.4%	200
Cs	2340 (2340)	2433 (2433)	2131 (2131)	14149 (14149)	13618 (13618)	2864 (2864)	9746 (9746)	28341 (28341)	9453	9205	97.4%	2131
Fe	4620 (10000)	758 (10000)	6458 (10000)	7094 (10000)	16298 (10000)	1076 (10000)	4447 (10000)	8394 (10000)	10000	0	0.0%	10000
Mn	258 (1000)	53 (1000)	167 (51)	367 (1000)	584 (1000)	108 (1000)	129 (1000)	293 (1000)	881	336	38.1%	51
Zn	160 (1000)	31 (5000)	168 (300)	230 (1000)	313 (1000)	48 (1000)	105 (1000)	359 (1000)	1413	1470	104.1%	300
Am, Cm	37 (1000)	15 (1000)	100 (1000)	107 (1000)	144 (1000)	25 (1000)	59 (1000)	132 (1000)	1000	0	0.0%	1000
Br	60 (60)	25 (25)	476 (476)	28 (28)	11 (11)	24 (24)	114 (114)	60 (60)	100	155	155.7%	11
Sb	1100 (1100)	153 (153)	5200 (5200)	2070 (2070)	1100 (1100)	1800 (1800)	5000 (5000)	1900 (1900)	2291	1838	80.2%	153
Pb	48000 (48000)	160000 (160000)	58000 (58000)	81000 (81000)	31000 (31000)	98000 (98000)	8700 (8700)	26000 (26000)	63713	48553	76.2%	9700

NOTE: Second value in parenthesis is final ANL reported value. Values in GREEN are a listed "Greater Than" value.