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August 11, 2000

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

Subject: Saxton Nuclear Experimental Corporation  
Operating License No. DPR-4  
Docket No. 50-146  
License Termination Plan References

Gentlemen,

Attached is the SNEC Facility License Termination Plan Reference as requested by the NRC Project Manager.

Reference 2-19: Attachment to the CoPhysics Corp. Report, "Review of The Final Release Survey Of the Reactor Support Buildings At The Saxton Nuclear Experimental Facility"

Sincerely,

A handwritten signature in black ink, appearing to read "G. A. Kuehn", is written over the printed name.

G. A. Kuehn  
Vice President SNEC

RDH/rdh

Attachment: Attachment to the CoPhysics Corp. Report, "Review of The Final Release Survey Of the Reactor Support Buildings At The Saxton Nuclear Experimental Facility"

cc: Alexander Adams  
Thomas Dragoun

A001

## ATTACHMENTS

(Dose Summation, Source Term Parameters, RESRAD runs)

# DOSE SUMMATION

t (yr)	0	1	3	10	30	100	300	1000
VOL1	6.30E-07	3.10E-04	1.00E-03	1.10E-03	3.70E-04	4.20E-04	3.30E-03	1.20E-02
VOL2	6.30E-07	2.40E-04	9.30E-03	1.40E-03	5.20E-04	3.10E-04	3.60E-03	1.40E-02
VOL3	6.30E-07	2.10E-04	6.10E-04	5.40E-04	1.80E-04	2.90E-04	2.70E-03	9.30E-03
TOT mrem/yr	1.89E-06	7.60E-04	1.09E-02	3.04E-03	1.07E-03	1.02E-03	9.60E-03	3.53E-02

Max: 0.011 mrem/yr  
(in 3rd year)

## C&A BLDG AND RWDF RUBBLE BED SOURCE TERM PARAMETERS

### SOURCE:

C&A surface area: 2585 sq.m (ref pag 46 of SNEC report)  
RWDF surface area: 2232 sq.m  
RWDF pad surface area: 65 sq.m TOTAL Surface Area: 4882 sq.m

#### Total Activity Estimation:

$< 5000 \text{ beta dpm/100 sq.cm} \times 4882 \text{ sq.m} \times 10000 \text{ sq.cm/1 sq.m} = 2.44\text{e}8 \text{ dpm}$   
 $< = 1.1\text{e}8 \text{ pCi}$

Add factor of 10 self-abs/misc. correction factor: Activity  $\leq 1.1\text{e}9 \text{ pCi}$

Average Concentration Estimation:  $1.1\text{e}9 \text{ pCi/1340 cu.m} / (2 \text{ g/cc}) * 1 \text{ cu.m/1e6 cc} = 0.4 \text{ pCi/g}$   
(volume & density from below) (gross beta activity)

TOTAL VOLUME FROM VOL1, VOL2, VOL3 BELOW =  $450 + 410 + 480 = 1340 \text{ cu.m}$

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### VOLUME 1

Compressor Room and Evap. Gas Str Room (~ 150 sq.m)

Approx. Outside Dim: 28' x 57' (Includes shield walls, stairwells)

Cover Material Top Layer: 3' clean soil, Est. Density = 1.0 - 1.2 -> Density Used = 1.0

Contam Layer: 8' concrete rubble & clean #2 stone to fill voids; Est. Density = 1.7 - 2.4

Base Fill Material: 1' clean #2 stone; Est. Density = 1.7 - 2.4

Contam Layer: 1' concrete floor slab & clean #2 stone to fill holes in floor; Est. Density = 3

Assume contaminated layer includes Base Fill Material and Floor Slab

Therefore, contam. Layer thickness = 10' (3 m); Density used for entire layer = 2.0

Total Contam Volume:  $28 \times 57 \times 10 = 15,960 \text{ cu. Ft} = 450 \text{ cu.m}$

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## VOLUME 2

Evap. Concentrates Room (6m x 12 m ~ 72 sq.m)

Approx. Outside Dim: 19' x 40' (Includes shield walls, stairwells)

Cover Material Top Layer: 3' clean soil, Est. Density = 1.0 - 1.2 -> Density Used = 1.0

Contam Layer: 17' concrete rubble & clean #2 stone to fill voids; Est. Density = 1.7 - 2.4

Base Fill Material: 1' clean #2 stone; Est. Density = 1.7 - 2.4

Contam Layer: 1' concrete floor slab & clean #2 stone to fill holes in floor; Est. Density = 3

→ Assume contaminated layer includes Base Fill Material and Floor Slab

Therefore, contam. Layer thickness = 19' (5.8 m); Density used for entire layer = 2.0

Total Contam Volume:  $19 \times 40 \times 19 = 14,440$  cu. Ft = 410 cu.m

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## VOLUME 3

Yard Pipe & CV Tunnels (42m x 5.8 m ~ 250 sq.m)

Approx. Outside Dim: 137' x 19' (Includes entire width of excavation)

Cover Material Top Layer: 3' clean soil, Est. Density = 1.0 - 1.2 -> Density Used = 1.0

Contam Layer: 6.5' (2 m) concrete rubble (mostly crushed block) & base slab; Est. Density = 1.8 - 3.0

Base Fill Material: none

Density Used = 2.0

Total Contam Volume:  $137 \times 19 \times 6.5 = 16,900$  cu. Ft = 480 cu.m

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Time = 3.000E+00 .....	16
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Dose Conversion Factor (and Related) Parameter Summary  
File: DOSFAC.BIN

Menu	Parameter	Current Value	Default	Parameter Name
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	Ac-227+D	6.720E+00	6.720E+00	DCF2( 1)
B-1	Am-241	4.440E-01	4.440E-01	DCF2( 2)
B-1	Co-60	2.190E-04	2.190E-04	DCF2( 3)
B-1	Cs-137+D	3.190E-05	3.190E-05	DCF2( 4)
B-1	H-3	6.400E-08	6.400E-08	DCF2( 5)
B-1	Np-237+D	5.400E-01	5.400E-01	DCF2( 6)
B-1	Pa-231	1.280E+00	1.280E+00	DCF2( 7)
B-1	Pb-210+D	2.320E-02	2.320E-02	DCF2( 8)
B-1	Pu-238	3.920E-01	3.920E-01	DCF2( 9)
B-1	Ra-226+D	8.600E-03	8.600E-03	DCF2(10)
B-1	Th-229+D	2.160E+00	2.160E+00	DCF2(11)
B-1	Th-230	3.260E-01	3.260E-01	DCF2(12)
B-1	U-233	1.350E-01	1.350E-01	DCF2(13)
B-1	U-234	1.320E-01	1.320E-01	DCF2(14)
B-1	U-235+D	1.230E-01	1.230E-01	DCF2(15)
B-1	U-238+D	1.180E-01	1.180E-01	DCF2(16)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	Ac-227+D	1.480E-02	1.480E-02	DCF3( 1)
D-1	Am-241	3.640E-03	3.640E-03	DCF3( 2)
D-1	Co-60	2.690E-05	2.690E-05	DCF3( 3)
D-1	Cs-137+D	5.000E-05	5.000E-05	DCF3( 4)
D-1	H-3	6.400E-08	6.400E-08	DCF3( 5)
D-1	Np-237+D	4.440E-03	4.440E-03	DCF3( 6)
D-1	Pa-231	1.060E-02	1.060E-02	DCF3( 7)
D-1	Pb-210+D	7.270E-03	7.270E-03	DCF3( 8)
D-1	Pu-238	3.200E-03	3.200E-03	DCF3( 9)
D-1	Ra-226+D	1.330E-03	1.330E-03	DCF3(10)
D-1	Th-229+D	4.030E-03	4.030E-03	DCF3(11)
D-1	Th-230	5.480E-04	5.480E-04	DCF3(12)
D-1	U-233	2.890E-04	2.890E-04	DCF3(13)
D-1	U-234	2.830E-04	2.830E-04	DCF3(14)
D-1	U-235+D	2.670E-04	2.670E-04	DCF3(15)
D-1	U-238+D	2.690E-04	2.690E-04	DCF3(16)
D-34	Food transfer factors:			
D-34	Ac-227+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 1,1)
D-34	Ac-227+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 1,2)
D-34	Ac-227+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-05	2.000E-05	RTF( 1,3)
D-34	Am-241 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 2,1)
D-34	Am-241 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-05	5.000E-05	RTF( 2,2)
D-34	Am-241 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 2,3)
D-34	Co-60 , plant/soil concentration ratio, dimensionless	8.000E-02	8.000E-02	RTF( 3,1)
D-34	Co-60 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 3,2)
D-34	Co-60 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 3,3)

Dose Conversion Factor (and Related) Parameter Summary (continued)  
 File: DOSFAC.BIN

Menu	Parameter	Current Value	Default	Parameter Name
D-34	Cs-137+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 4,1)
D-34	Cs-137+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-02	3.000E-02	RTF( 4,2)
D-34	Cs-137+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	8.000E-03	8.000E-03	RTF( 4,3)
D-34				
D-34	H-3 , plant/soil concentration ratio, dimensionless	4.800E+00	4.800E+00	RTF( 5,1)
D-34	H-3 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.200E-02	1.200E-02	RTF( 5,2)
D-34	H-3 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-02	1.000E-02	RTF( 5,3)
D-34				
D-34	Np-237+D , plant/soil concentration ratio, dimensionless	2.000E-02	2.000E-02	RTF( 6,1)
D-34	Np-237+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 6,2)
D-34	Np-237+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 6,3)
D-34				
D-34	Pa-231 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 7,1)
D-34	Pa-231 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 7,2)
D-34	Pa-231 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 7,3)
D-34				
D-34	Pb-210+D , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 8,1)
D-34	Pb-210+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-04	8.000E-04	RTF( 8,2)
D-34	Pb-210+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 8,3)
D-34				
D-34	Pu-238 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 9,1)
D-34	Pu-238 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 9,2)
D-34	Pu-238 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 9,3)
D-34				
D-34	Ra-226+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF(10,1)
D-34	Ra-226+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF(10,2)
D-34	Ra-226+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF(10,3)
D-34				
D-34	Th-229+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(11,1)
D-34	Th-229+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF(11,2)
D-34	Th-229+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(11,3)
D-34				
D-34	Th-230 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(12,1)
D-34	Th-230 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF(12,2)
D-34	Th-230 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(12,3)
D-34				
D-34	U-233 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(13,1)
D-34	U-233 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(13,2)
D-34	U-233 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(13,3)
D-34				
D-34	U-234 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(14,1)
D-34	U-234 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(14,2)
D-34	U-234 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(14,3)
D-34				
D-34	U-235+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(15,1)
D-34	U-235+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(15,2)
D-34	U-235+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(15,3)
D-34				

Dose Conversion Factor (and Related) Parameter Summary (continued)  
File: DOSFAC.BIN

Menu	Parameter	Current Value	Default	Parameter Name
D-34	U-238+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(16,1)
D-34	U-238+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(16,2)
D-34	U-238+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(16,3)
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Ac-227+D , fish	1.500E+01	1.500E+01	BIOFAC( 1,1)
D-5	Ac-227+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 1,2)
D-5				
D-5	Am-241 , fish	3.000E+01	3.000E+01	BIOFAC( 2,1)
D-5	Am-241 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 2,2)
D-5				
D-5	Co-60 , fish	3.000E+02	3.000E+02	BIOFAC( 3,1)
D-5	Co-60 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC( 3,2)
D-5				
D-5	Cs-137+D , fish	2.000E+03	2.000E+03	BIOFAC( 4,1)
D-5	Cs-137+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 4,2)
D-5				
D-5	H-3 , fish	1.000E+00	1.000E+00	BIOFAC( 5,1)
D-5	H-3 , crustacea and mollusks	1.000E+00	1.000E+00	BIOFAC( 5,2)
D-5				
D-5	Np-237+D , fish	3.000E+01	3.000E+01	BIOFAC( 6,1)
D-5	Np-237+D , crustacea and mollusks	4.000E+02	4.000E+02	BIOFAC( 6,2)
D-5				
D-5	Pa-231 , fish	1.000E+01	1.000E+01	BIOFAC( 7,1)
D-5	Pa-231 , crustacea and mollusks	1.100E+02	1.100E+02	BIOFAC( 7,2)
D-5				
D-5	Pb-210+D , fish	3.000E+02	3.000E+02	BIOFAC( 8,1)
D-5	Pb-210+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 8,2)
D-5				
D-5	Pu-238 , fish	3.000E+01	3.000E+01	BIOFAC( 9,1)
D-5	Pu-238 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 9,2)
D-5				
D-5	Ra-226+D , fish	5.000E+01	5.000E+01	BIOFAC(10,1)
D-5	Ra-226+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC(10,2)
D-5				
D-5	Th-229+D , fish	1.000E+02	1.000E+02	BIOFAC(11,1)
D-5	Th-229+D , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC(11,2)
D-5				
D-5	Th-230 , fish	1.000E+02	1.000E+02	BIOFAC(12,1)
D-5	Th-230 , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC(12,2)
D-5				
D-5	U-233 , fish	1.000E+01	1.000E+01	BIOFAC(13,1)
D-5	U-233 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(13,2)
D-5				
D-5	U-234 , fish	1.000E+01	1.000E+01	BIOFAC(14,1)
D-5	U-234 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(14,2)
D-5				
D-5	U-235+D , fish	1.000E+01	1.000E+01	BIOFAC(15,1)
D-5	U-235+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(15,2)
D-5				

Dose Conversion Factor (and Related) Parameter Summary (continued)  
File: DOSFAC.BIN

Menu	Parameter	Current Value	Default	Parameter Name
D-5	U-238+D , fish	1.000E+01	1.000E+01	BIOFAC(16,1)
D-5	U-238+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(16,2)

Summary : SNEC Rubble Bed in Compressor Room and Evap. Gas Str Room

File : SNECVOL1.RAD

## Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.500E+02	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	3.000E+00	2.000E+00	---	THICKO
R011	Length parallel to aquifer flow (m)	1.800E+01	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	0.000E+00	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T( 2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T( 3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T( 4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T( 5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T( 6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T( 7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T( 8)
R011	Times for calculations (yr)	not used	0.000E+00	---	T( 9)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(10)
R012	Initial principal radionuclide (pCi/g): Am-241	4.000E-03	0.000E+00	---	S1( 2)
R012	Initial principal radionuclide (pCi/g): Co-60	2.000E-03	0.000E+00	---	S1( 3)
R012	Initial principal radionuclide (pCi/g): Cs-137	4.000E-01	0.000E+00	---	S1( 4)
R012	Initial principal radionuclide (pCi/g): H-3	8.000E-01	0.000E+00	---	S1( 5)
R012	Initial principal radionuclide (pCi/g): Pu-238	4.000E-04	0.000E+00	---	S1( 9)
R012	Initial principal radionuclide (pCi/g): U-234	4.000E-03	0.000E+00	---	S1(14)
R012	Initial principal radionuclide (pCi/g): U-235	4.000E-03	0.000E+00	---	S1(15)
R012	Initial principal radionuclide (pCi/g): U-238	4.000E-03	0.000E+00	---	S1(16)
R012	Concentration in groundwater (pCi/L): Am-241	not used	0.000E+00	---	W1( 2)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1( 3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1( 4)
R012	Concentration in groundwater (pCi/L): H-3	not used	0.000E+00	---	W1( 5)
R012	Concentration in groundwater (pCi/L): Pu-238	not used	0.000E+00	---	W1( 9)
R012	Concentration in groundwater (pCi/L): U-234	not used	0.000E+00	---	W1(14)
R012	Concentration in groundwater (pCi/L): U-235	not used	0.000E+00	---	W1(15)
R012	Concentration in groundwater (pCi/L): U-238	not used	0.000E+00	---	W1(16)
R013	Cover depth (m)	1.000E+00	0.000E+00	---	COVERO
R013	Density of cover material (g/cm**3)	1.500E+00	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	2.000E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	3.450E-04	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	3.500E-01	4.000E-01	---	TPCZ
R013	Contaminated zone effective porosity	3.500E-01	2.000E-01	---	EPCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.730E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	1.050E+01	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.867E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	8.000E+00	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.940E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	1.024E+00	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	3.500E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	5.000E+06	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	---	EPS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Density of saturated zone (g/cm**3)	1.480E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.500E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	3.500E-01	2.000E-01	---	EPSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.730E+01	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	3.000E-03	2.000E-02	---	HGWT
R014	Saturated zone b parameter	1.050E+01	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	5.000E-04	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	3.000E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	2.860E+02	2.500E+02	---	UW
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	6.100E-01	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.600E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	3.500E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	3.500E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	1.050E+01	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.730E+01	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for Am-241				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC( 2)
R016	Unsat. zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU( 2,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS( 2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.907E-03	ALEACH( 2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 2)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	5.000E+01	1.000E+03	---	DCNUCC( 3)
R016	Unsat. zone 1 (cm**3/g)	5.000E+03	1.000E+03	---	DCNUCU( 3,1)
R016	Saturated zone (cm**3/g)	5.000E+03	1.000E+03	---	DCNUCS( 3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.168E-03	ALEACH( 3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 3)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	5.000E+00	1.000E+03	---	DCNUCC( 4)
R016	Unsat. zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU( 4,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS( 4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.138E-02	ALEACH( 4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 4)
R016	Distribution coefficients for H-3				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC( 5)
R016	Unsat. zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU( 5,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS( 5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.937E-01	ALEACH( 5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 5)

Summary : SNEC Rubble Bed in Compressor Room and Evap. Gas Str Room

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Pu-238				
R016	Contaminated zone (cm**3/g)	5.000E+03	2.000E+03	---	DCNUCC( 9)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+04	2.000E+03	---	DCNUCU( 9,1)
R016	Saturated zone (cm**3/g)	1.000E+04	2.000E+03	---	DCNUCS( 9)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.171E-05	ALEACH( 9)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 9)
R016	Distribution coefficients for U-234				
R016	Contaminated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCC(14)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCU(14,1)
R016	Saturated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCS(14)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.951E-04	ALEACH(14)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(14)
R016	Distribution coefficients for U-235				
R016	Contaminated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCC(15)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCU(15,1)
R016	Saturated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCS(15)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.951E-04	ALEACH(15)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(15)
R016	Distribution coefficients for U-238				
R016	Contaminated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCC(16)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCU(16,1)
R016	Saturated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCS(16)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.951E-04	ALEACH(16)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(16)
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC( 1)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU( 1,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS( 1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.907E-03	ALEACH( 1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 1)
R016	Distribution coefficients for daughter Np-237				
R016	Contaminated zone (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCC( 6)
R016	Unsaturated zone 1 (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCU( 6,1)
R016	Saturated zone (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCS( 6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.274E-04	ALEACH( 6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 6)
R016	Distribution coefficients for daughter Pa-231				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC( 7)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU( 7,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS( 7)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.168E-03	ALEACH( 7)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 7)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for daughter Pb-210				
R016	Contaminated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCC( 8)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCU( 8,1)
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCS( 8)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.849E-04	ALEACH( 8)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 8)
R016	Distribution coefficients for daughter Ra-226				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC(10)
R016	Unsaturated zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU(10,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS(10)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.350E-04	ALEACH(10)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(10)
R016	Distribution coefficients for daughter Th-229				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC(11)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU(11,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS(11)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	9.762E-07	ALEACH(11)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(11)
R016	Distribution coefficients for daughter Th-230				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC(12)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU(12,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS(12)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	9.762E-07	ALEACH(12)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(12)
R016	Distribution coefficients for daughter U-233				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC(13)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU(13,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS(13)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.168E-03	ALEACH(13)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(13)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	7.000E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	5.000E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	2.500E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	-1.000E+00	1.000E+00	-1 shows non-circular AREA.	FS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	5.000E+01	5.000E+01	---	RAD_SHAPE( 1)
R017	Outer annular radius (m), ring 2:	7.071E+01	7.071E+01	---	RAD_SHAPE( 2)
R017	Outer annular radius (m), ring 3:	0.000E+00	0.000E+00	---	RAD_SHAPE( 3)
R017	Outer annular radius (m), ring 4:	0.000E+00	0.000E+00	---	RAD_SHAPE( 4)
R017	Outer annular radius (m), ring 5:	0.000E+00	0.000E+00	---	RAD_SHAPE( 5)
R017	Outer annular radius (m), ring 6:	0.000E+00	0.000E+00	---	RAD_SHAPE( 6)
R017	Outer annular radius (m), ring 7:	0.000E+00	0.000E+00	---	RAD_SHAPE( 7)
R017	Outer annular radius (m), ring 8:	0.000E+00	0.000E+00	---	RAD_SHAPE( 8)
R017	Outer annular radius (m), ring 9:	0.000E+00	0.000E+00	---	RAD_SHAPE( 9)
R017	Outer annular radius (m), ring 10:	0.000E+00	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	0.000E+00	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	0.000E+00	0.000E+00	---	RAD_SHAPE(12)
R017	Fractions of annular areas within AREA:				
R017	Ring 1	1.000E+00	1.000E+00	---	FRACA( 1)
R017	Ring 2	2.732E-01	2.732E-01	---	FRACA( 2)
R017	Ring 3	0.000E+00	0.000E+00	---	FRACA( 3)
R017	Ring 4	0.000E+00	0.000E+00	---	FRACA( 4)
R017	Ring 5	0.000E+00	0.000E+00	---	FRACA( 5)
R017	Ring 6	0.000E+00	0.000E+00	---	FRACA( 6)
R017	Ring 7	0.000E+00	0.000E+00	---	FRACA( 7)
R017	Ring 8	0.000E+00	0.000E+00	---	FRACA( 8)
R017	Ring 9	0.000E+00	0.000E+00	---	FRACA( 9)
R017	Ring 10	0.000E+00	0.000E+00	---	FRACA(10)
R017	Ring 11	0.000E+00	0.000E+00	---	FRACA(11)
R017	Ring 12	0.000E+00	0.000E+00	---	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	5.200E+02	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	6.400E+01	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	3.100E+02	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	1.100E+02	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	2.100E+01	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	5.000E+00	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	7.300E+02	5.100E+02	---	DWI
R018	Contamination fraction of drinking water	1.000E+00	1.000E+00	---	FDW
R018	Contamination fraction of household water	not used	1.000E+00	---	FHHW
R018	Contamination fraction of livestock water	1.000E+00	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	1.000E+00	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	1.000E+00	5.000E-01	---	FR9
R018	Contamination fraction of plant food	1.000E+00	-1	---	FPLANT
R018	Contamination fraction of meat	1.000E+00	-1	---	FMEAT
R018	Contamination fraction of milk	1.000E+00	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	6.800E+01	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	5.500E+01	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	5.000E+01	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	1.600E+02	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	5.000E-01	5.000E-01	---	LSI

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## Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R019	Mass loading for foliar deposition (g/m**3)	1.000E-04	1.000E-04	---	MLFD
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	9.000E-01	9.000E-01	---	DROOT
R019	Drinking water fraction from ground water	1.000E+00	1.000E+00	---	FGWDW
R019	Household water fraction from ground water	1.000E+00	1.000E+00	---	FGWHH
R019	Livestock water fraction from ground water	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	1.000E+00	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	7.000E-01	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	1.500E+00	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	1.100E+00	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	1.700E-01	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	2.500E-01	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	8.000E-02	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	1.000E-01	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	1.000E+00	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	1.000E+00	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	2.000E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	not used	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07	---	EVSN
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10	---	REVSN
C14	Fraction of grain in beef cattle feed	not used	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	not used	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	not used	1.000E-01	---	TPFL

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	not used	3.000E-07	---	DIFFL
R021	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
R021	Height of the building (room) (m)	not used	2.500E+00	---	HRM
R021	Building interior area factor	not used	0.000E+00	---	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA (1)
R021	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA (2)

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	active
4 -- meat ingestion	active
5 -- milk ingestion	active
6 -- aquatic foods	active
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	suppressed

Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
Area:	150.00 square meters	Am-241	4.000E-03
Thickness:	3.00 meters	Co-60	2.000E-03
Cover Depth:	1.00 meters	Cs-137	4.000E-01
		H-3	8.000E-01
		Pu-238	4.000E-04
		U-234	4.000E-03
		U-235	4.000E-03
		U-238	4.000E-03

Total Dose TDOSE(t), mrem/yr								
Basic Radiation Dose Limit = 25 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	3.000E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	6.345E-07	3.148E-04	1.045E-03	1.109E-03	3.701E-04	4.178E-04	3.304E-03	1.153E-02
M(t):	2.538E-08	1.259E-05	4.181E-05	4.437E-05	1.480E-05	1.671E-05	1.321E-04	4.612E-04

Maximum TDOSE(t): 1.153E-02 mrem/yr      at t = 1.000E+03 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.
Am-241	3.571E-25	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
Co-60	1.424E-07	0.2244	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
Cs-137	4.918E-07	0.7751	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
H-3	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
Pu-238	1.835E-21	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
U-234	1.605E-19	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
U-235	1.728E-12	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
U-238	2.912E-10	0.0005	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	6.345E-07	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	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 = 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.
Am-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	3.571E-25	0.0000
Co-60	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	1.424E-07	0.2244
Cs-137	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	4.918E-07	0.7751
H-3	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
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	1.835E-21	0.0000
U-234	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	1.605E-19	0.0000
U-235	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	1.728E-12	0.0000
U-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	2.912E-10	0.0005
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	6.345E-07	1.0000

\*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 = 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.
Am-241	7.814E-18	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
Co-60	1.262E-07	0.0004	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
Cs-137	4.820E-07	0.0015	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
H-3	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
Pu-238	1.893E-21	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
U-234	1.928E-16	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
U-235	1.764E-12	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
U-238	2.952E-10	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	6.085E-07	0.0019	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 = 1.000E+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.
Am-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	7.814E-18	0.0000
Co-60	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	1.262E-07	0.0004
Cs-137	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	4.820E-07	0.0015
H-3	1.578E-04	0.5013	3.601E-09	0.0000	0.000E+00	0.0000	9.748E-05	0.3096	8.390E-06	0.0266	5.052E-05	0.1605	3.142E-04	0.9981
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	1.893E-21	0.0000
U-234	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	1.928E-16	0.0000
U-235	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	1.764E-12	0.0000
U-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	2.952E-10	0.0000
Total	1.578E-04	0.5013	3.601E-09	0.0000	0.000E+00	0.0000	9.748E-05	0.3096	8.390E-06	0.0266	5.052E-05	0.1605	3.148E-04	1.0000

\*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 = 3.000E+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.
Am-241	2.421E-17	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
Co-60	9.909E-08	0.0001	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
Cs-137	4.629E-07	0.0004	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
H-3	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
Pu-238	2.458E-21	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
U-234	1.776E-15	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
U-235	1.838E-12	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
U-238	3.033E-10	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	5.623E-07	0.0005	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 = 3.000E+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.
Am-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	2.421E-17	0.0000
Co-60	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	9.909E-08	0.0001
Cs-137	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	4.629E-07	0.0004
H-3	5.103E-04	0.4882	1.197E-08	0.0000	0.000E+00	0.0000	3.336E-04	0.3192	3.259E-05	0.0312	1.682E-04	0.1609	1.045E-03	0.9995
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	2.458E-21	0.0000
U-234	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	1.776E-15	0.0000
U-235	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	1.838E-12	0.0000
U-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	3.033E-10	0.0000
Total	5.103E-04	0.4882	1.197E-08	0.0000	0.000E+00	0.0000	3.336E-04	0.3192	3.259E-05	0.0312	1.682E-04	0.1609	1.045E-03	1.0000

\*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 = 1.000E+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.
Am-241	9.032E-17	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
Co-60	4.250E-08	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
Cs-137	4.017E-07	0.0004	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
H-3	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
Pu-238	2.218E-20	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
U-234	2.145E-14	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
U-235	2.127E-12	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
U-238	3.336E-10	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	4.446E-07	0.0004	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 = 1.000E+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.
Am-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	9.032E-17	0.0000
Co-60	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	4.250E-08	0.0000
Cs-137	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	4.017E-07	0.0004
H-3	5.395E-04	0.4864	1.270E-08	0.0000	0.000E+00	0.0000	3.554E-04	0.3204	3.525E-05	0.0318	1.785E-04	0.1609	1.109E-03	0.9996
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	2.218E-20	0.0000
U-234	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	2.145E-14	0.0000
U-235	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	2.127E-12	0.0000
U-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	3.336E-10	0.0000
Total	5.395E-04	0.4864	1.270E-08	0.0000	0.000E+00	0.0000	3.554E-04	0.3204	3.525E-05	0.0318	1.785E-04	0.1609	1.109E-03	1.0000

\*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 = 3.000E+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.
Am-241	3.740E-16	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
Co-60	3.785E-09	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
Cs-137	2.681E-07	0.0007	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
H-3	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
Pu-238	6.617E-19	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
U-234	2.453E-13	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
U-235	3.247E-12	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
U-238	4.378E-10	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	2.723E-07	0.0007	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 = 3.000E+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.
Am-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	3.740E-16	0.0000
Co-60	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	3.785E-09	0.0000
Cs-137	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	2.681E-07	0.0007
H-3	1.799E-04	0.4862	4.238E-09	0.0000	0.000E+00	0.0000	1.186E-04	0.3204	1.177E-05	0.0318	5.953E-05	0.1609	3.698E-04	0.9993
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	6.617E-19	0.0000
U-234	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	2.453E-13	0.0000
U-235	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	3.247E-12	0.0000
U-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	4.378E-10	0.0000
Total	1.799E-04	0.4862	4.238E-09	0.0000	0.000E+00	0.0000	1.186E-04	0.3204	1.177E-05	0.0318	5.953E-05	0.1609	3.701E-04	1.0000

\*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 = 1.000E+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.
Am-241	3.869E-15	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
Co-60	7.978E-13	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
Cs-137	6.504E-08	0.0002	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
H-3	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
Pu-238	4.992E-17	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
U-234	6.296E-12	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
U-235	1.437E-11	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
U-238	1.133E-09	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	6.620E-08	0.0002	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 = 1.000E+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.
Am-241	2.988E-04	0.7153	1.524E-06	0.0036	0.000E+00	0.0000	1.168E-04	0.2796	3.890E-07	0.0009	6.585E-08	0.0002	4.176E-04	0.9997
Co-60	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	7.978E-13	0.0000
Cs-137	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	6.504E-08	0.0002
H-3	4.522E-18	0.0000	1.072E-22	0.0000	0.000E+00	0.0000	3.019E-18	0.0000	3.072E-19	0.0000	1.506E-18	0.0000	9.354E-18	0.0000
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	4.992E-17	0.0000
U-234	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	6.296E-12	0.0000
U-235	5.013E-08	0.0001	2.410E-10	0.0000	0.000E+00	0.0000	1.957E-08	0.0000	2.582E-11	0.0000	1.101E-10	0.0000	7.009E-08	0.0002
U-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	1.133E-09	0.0000
Total	2.989E-04	0.7154	1.524E-06	0.0036	0.000E+00	0.0000	1.168E-04	0.2797	3.890E-07	0.0009	6.596E-08	0.0002	4.178E-04	1.0000

\*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 = 3.000E+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.
Am-241	3.074E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	4.906E-04	0.1485	3.427E-07	0.0001	2.885E-08	0.0000	0.000E+00	0.0000
Co-60	2.503E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.895E-21	0.0000	7.412E-22	0.0000	1.690E-22	0.0000	0.000E+00	0.0000
Cs-137	1.138E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.341E-06	0.0010	1.285E-06	0.0004	7.809E-07	0.0002	0.000E+00	0.0000
H-3	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
Pu-238	1.095E-14	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.548E-05	0.0047	1.985E-08	0.0000	6.550E-10	0.0000	0.000E+00	0.0000
U-234	6.212E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.556E-04	0.1076	1.609E-06	0.0005	6.222E-06	0.0019	0.000E+00	0.0000
U-235	9.120E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.957E-04	0.2106	1.971E-05	0.0060	5.812E-06	0.0018	0.000E+00	0.0000
U-238	1.717E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.295E-04	0.0997	1.434E-06	0.0004	5.769E-06	0.0017	0.000E+00	0.0000
Total	1.984E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.890E-03	0.5722	2.440E-05	0.0074	1.861E-05	0.0056	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 = 3.000E+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.
Am-241	9.739E-04	0.2948	4.967E-06	0.0015	0.000E+00	0.0000	3.809E-04	0.1153	1.272E-06	0.0004	2.148E-07	0.0001	1.852E-03	0.5607
Co-60	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	3.830E-21	0.0000
Cs-137	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	5.409E-06	0.0016
H-3	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
Pu-238	6.810E-16	0.0000	3.429E-18	0.0000	0.000E+00	0.0000	2.672E-16	0.0000	1.512E-17	0.0000	3.687E-17	0.0000	1.550E-05	0.0047
U-234	1.814E-10	0.0000	9.229E-13	0.0000	0.000E+00	0.0000	7.117E-11	0.0000	4.023E-12	0.0000	9.648E-12	0.0000	3.634E-04	0.1100
U-235	6.476E-06	0.0020	2.752E-08	0.0000	0.000E+00	0.0000	2.532E-06	0.0008	1.181E-07	0.0000	1.281E-08	0.0000	7.303E-04	0.2211
U-238	8.432E-15	0.0000	4.249E-17	0.0000	0.000E+00	0.0000	3.309E-15	0.0000	1.873E-16	0.0000	4.562E-16	0.0000	3.367E-04	0.1019
Total	9.804E-04	0.2968	4.994E-06	0.0015	0.000E+00	0.0000	3.834E-04	0.1161	1.390E-06	0.0004	2.276E-07	0.0001	3.304E-03	1.0000

\*Sum of all water independent and dependent pathways.

Summary : SNEC Rubble Bed in Compressor Room and Evap. Gas Str Room

File : SNECVOL1.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+03 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.
Am-241	1.263E-06	0.0001	4.675E-07	0.0000	0.000E+00	0.0000	1.058E-04	0.0092	7.157E-07	0.0001	5.771E-08	0.0000	6.614E-07	0.0001
Co-60	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
Cs-137	8.092E-16	0.0000	3.217E-22	0.0000	0.000E+00	0.0000	4.952E-16	0.0000	2.256E-16	0.0000	1.421E-16	0.0000	8.702E-20	0.0000
H-3	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
Pu-238	9.510E-10	0.0000	1.754E-09	0.0000	0.000E+00	0.0000	3.343E-07	0.0000	3.958E-09	0.0000	4.382E-09	0.0000	2.073E-09	0.0000
U-234	3.202E-05	0.0028	1.056E-05	0.0009	0.000E+00	0.0000	1.717E-03	0.1489	2.923E-05	0.0025	1.189E-04	0.0103	4.051E-06	0.0004
U-235	1.470E-03	0.1275	1.736E-05	0.0015	0.000E+00	0.0000	4.881E-03	0.4234	3.271E-04	0.0284	1.073E-04	0.0093	7.957E-06	0.0007
U-238	2.545E-04	0.0221	9.270E-06	0.0008	0.000E+00	0.0000	1.297E-03	0.1125	2.225E-05	0.0019	1.053E-04	0.0091	3.646E-06	0.0003
Total	1.758E-03	0.1525	3.767E-05	0.0033	0.000E+00	0.0000	8.001E-03	0.6940	3.793E-04	0.0329	3.316E-04	0.0288	1.632E-05	0.0014

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+03 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.
Am-241	6.006E-04	0.0521	3.063E-06	0.0003	0.000E+00	0.0000	2.349E-04	0.0204	7.850E-07	0.0001	1.325E-07	0.0000	9.485E-04	0.0823
Co-60	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
Cs-137	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	1.672E-15	0.0000
H-3	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
Pu-238	4.756E-12	0.0000	2.513E-14	0.0000	0.000E+00	0.0000	1.867E-12	0.0000	1.049E-13	0.0000	2.361E-13	0.0000	3.475E-07	0.0000
U-234	2.157E-07	0.0000	1.141E-09	0.0000	0.000E+00	0.0000	8.472E-08	0.0000	4.757E-09	0.0000	1.069E-08	0.0000	1.912E-03	0.1658
U-235	1.164E-04	0.0101	4.613E-07	0.0000	0.000E+00	0.0000	4.554E-05	0.0039	3.184E-06	0.0003	2.169E-07	0.0000	6.977E-03	0.6051
U-238	1.016E-10	0.0000	5.360E-13	0.0000	0.000E+00	0.0000	3.988E-11	0.0000	2.240E-12	0.0000	5.055E-12	0.0000	1.692E-03	0.1467
Total	7.172E-04	0.0622	3.525E-06	0.0003	0.000E+00	0.0000	2.805E-04	0.0243	3.974E-06	0.0003	3.601E-07	0.0000	1.153E-02	1.0000

\*Sum of all water independent and dependent pathways.

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

Parent (i)	Product (j)	Branch Fraction*	DSR(j,t) (mrem/yr)/(pCi/g)							
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	Am-241	1.000E+00	8.927E-23	9.314E-23	1.014E-22	1.365E-22	3.189E-22	1.044E-01	4.625E-01	2.339E-01
Am-241	Np-237	1.000E+00	0.000E+00	1.954E-15	6.052E-15	2.258E-14	9.349E-14	7.450E-08	5.980E-04	3.183E-03
Am-241	U-233	1.000E+00	0.000E+00	4.748E-25	4.438E-24	5.628E-23	7.391E-22	2.545E-12	3.895E-09	7.566E-08
Am-241	Th-229	1.000E+00	0.000E+00	8.637E-25	2.405E-23	9.925E-22	3.651E-20	3.999E-18	2.065E-10	2.164E-08
Am-241	ΣDSR(j)		8.927E-23	1.954E-15	6.052E-15	2.258E-14	9.349E-14	1.044E-01	4.631E-01	2.371E-01
Co-60	Co-60	1.000E+00	7.121E-05	6.310E-05	4.954E-05	2.125E-05	1.893E-06	3.989E-10	1.915E-18	0.000E+00
Cs-137	Cs-137	1.000E+00	1.230E-06	1.205E-06	1.157E-06	1.004E-06	6.702E-07	1.626E-07	1.352E-05	4.180E-15
H-3	H-3	1.000E+00	0.000E+00	3.928E-04	1.306E-03	1.386E-03	4.622E-04	1.169E-17	0.000E+00	0.000E+00
Pu-238	Pu-238	1.000E+00	4.588E-18	4.688E-18	4.894E-18	5.688E-18	8.742E-18	3.934E-17	3.873E-02	7.009E-04
Pu-238	U-234	1.000E+00	0.000E+00	1.167E-22	3.680E-22	1.462E-21	7.253E-21	1.427E-19	2.928E-05	1.382E-04
Pu-238	Th-230	1.000E+00	0.000E+00	5.393E-27	5.106E-26	6.776E-25	1.014E-23	6.739E-22	4.158E-08	8.610E-07
Pu-238	Ra-226	1.000E+00	0.000E+00	4.543E-20	1.252E-18	4.976E-17	1.646E-15	1.248E-13	1.925E-07	1.403E-05
Pu-238	Pb-210	1.000E+00	0.000E+00	1.598E-31	1.342E-29	1.881E-27	2.206E-25	1.058E-22	1.970E-07	1.471E-05
Pu-238	ΣDSR(j)		4.588E-18	4.733E-18	6.145E-18	5.544E-17	1.654E-15	1.248E-13	3.876E-02	8.686E-04
U-234	U-234	1.000E+00	4.014E-17	4.131E-17	4.377E-17	5.359E-17	9.552E-17	7.223E-16	8.840E-02	3.761E-01
U-234	Th-230	1.000E+00	0.000E+00	3.815E-21	1.210E-20	4.906E-20	2.574E-19	6.067E-18	1.865E-04	2.720E-03
U-234	Ra-226	1.000E+00	0.000E+00	4.816E-14	4.439E-13	5.363E-12	6.131E-11	1.574E-09	1.093E-03	4.819E-02
U-234	Pb-210	1.000E+00	0.000E+00	2.254E-25	6.309E-24	2.654E-22	1.041E-20	1.555E-18	1.182E-03	5.096E-02
U-234	ΣDSR(j)		4.014E-17	4.820E-14	4.440E-13	5.363E-12	6.131E-11	1.574E-09	9.086E-02	4.780E-01
U-235	U-235	1.000E+00	4.319E-10	4.408E-10	4.593E-10	5.302E-10	7.990E-10	3.356E-09	8.347E-02	7.106E-01
U-235	Pa-231	1.000E+00	0.000E+00	6.363E-14	1.974E-13	7.396E-13	3.099E-12	3.328E-11	7.609E-02	7.701E-01
U-235	Ac-227	1.000E+00	0.000E+00	9.004E-15	8.196E-14	9.492E-13	9.773E-12	1.752E-05	2.302E-02	2.636E-01
U-235	ΣDSR(j)		4.319E-10	4.409E-10	4.596E-10	5.319E-10	8.118E-10	1.752E-05	1.826E-01	1.744E+00
U-238	U-238	1.000E+00	7.280E-08	7.379E-08	7.583E-08	8.339E-08	1.094E-07	2.833E-07	8.410E-02	4.218E-01
U-238	U-234	1.000E+00	0.000E+00	1.171E-22	3.723E-22	1.519E-21	8.124E-21	2.048E-19	7.522E-05	1.068E-03
U-238	Th-230	1.000E+00	0.000E+00	5.407E-27	5.146E-26	6.951E-25	1.093E-23	8.574E-22	7.858E-08	3.739E-06
U-238	Ra-226	1.000E+00	0.000E+00	4.553E-20	1.259E-18	5.072E-17	1.742E-15	1.498E-13	3.163E-07	4.840E-05
U-238	Pb-210	1.000E+00	0.000E+00	1.706E-31	1.350E-29	1.911E-27	2.312E-25	1.240E-22	3.130E-07	4.956E-05
U-238	ΣDSR(j)		7.280E-08	7.379E-08	7.583E-08	8.339E-08	1.094E-07	2.833E-07	8.418E-02	4.230E-01

\*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 = 25 mrem/yr

Nuclide (i)	t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	*3.430E+12	*3.430E+12	*3.430E+12	*3.430E+12	*3.430E+12	2.394E+02	5.399E+01	1.054E+02
Co-60	3.511E+05	3.962E+05	5.046E+05	1.176E+06	1.321E+07	6.268E+10	*1.131E+15	*1.131E+15
Cs-137	2.033E+07	2.075E+07	2.160E+07	2.489E+07	3.731E+07	1.537E+08	1.849E+06	*8.701E+13
H-3	*9.594E+15	6.365E+04	1.914E+04	1.804E+04	5.409E+04	*9.594E+15	*9.594E+15	*9.594E+15
Pu-238	*1.711E+13	*1.711E+13	*1.711E+13	*1.711E+13	*1.711E+13	*1.711E+13	6.450E+02	2.878E+04
U-234	*6.245E+09	*6.245E+09	*6.245E+09	*6.245E+09	*6.245E+09	*6.245E+09	2.751E+02	5.230E+01
U-235	*2.160E+06	*2.160E+06	*2.160E+06	*2.160E+06	*2.160E+06	1.427E+06	1.369E+02	1.433E+01
U-238	*3.360E+05	*3.360E+05	*3.360E+05	*3.360E+05	*3.360E+05	*3.360E+05	2.970E+02	5.911E+01

\*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 = 1.000E+03 years

Nuclide (i)	Initial pCi/g	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
Am-241	4.000E-03	381.7 ± 0.8	4.818E-01	5.189E+01	2.371E-01	1.054E+02
Co-60	2.000E-03	0.000E+00	7.121E-05	3.511E+05	0.000E+00	*1.131E+15
Cs-137	4.000E-01	129.1 ± 0.3	7.112E-04	3.515E+04	4.180E-15	*8.701E+13
H-3	8.000E-01	5.82 ± 0.01	1.571E-03	1.591E+04	0.000E+00	*9.594E+15
Pu-238	4.000E-04	226.5 ± 0.5	4.383E-02	5.704E+02	8.686E-04	2.878E+04
U-234	4.000E-03	1.000E+03	4.780E-01	5.230E+01	4.780E-01	5.230E+01
U-235	4.000E-03	1.000E+03	1.744E+00	1.433E+01	1.744E+00	1.433E+01
U-238	4.000E-03	1.000E+03	4.230E-01	5.911E+01	4.230E-01	5.911E+01

\*At specific activity limit

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

Nuclide (j)	Parent (i)	BRF(i)	DOSE(j,t), mrem/yr								
			t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	Am-241	1.000E+00		3.571E-25	3.726E-25	4.056E-25	5.459E-25	1.276E-24	4.176E-04	1.850E-03	9.358E-04
Np-237	Am-241	1.000E+00		0.000E+00	7.814E-18	2.421E-17	9.032E-17	3.740E-16	2.980E-10	2.392E-06	1.273E-05
U-233	Am-241	1.000E+00		0.000E+00	1.899E-27	1.775E-26	2.251E-25	2.956E-24	1.018E-14	1.558E-11	3.027E-10
Th-229	Am-241	1.000E+00		0.000E+00	3.455E-27	9.620E-26	3.970E-24	1.460E-22	1.599E-20	8.260E-13	8.657E-11
Co-60	Co-60	1.000E+00		1.424E-07	1.262E-07	9.909E-08	4.250E-08	3.785E-09	7.978E-13	3.830E-21	0.000E+00
Cs-137	Cs-137	1.000E+00		4.918E-07	4.820E-07	4.629E-07	4.017E-07	2.681E-07	6.504E-08	5.409E-06	1.672E-15
H-3	H-3	1.000E+00		0.000E+00	3.142E-04	1.045E-03	1.109E-03	3.698E-04	9.354E-18	0.000E+00	0.000E+00
Pu-238	Pu-238	1.000E+00		1.835E-21	1.875E-21	1.957E-21	2.275E-21	3.497E-21	1.574E-20	1.549E-05	2.803E-07
U-234	Pu-238	1.000E+00		0.000E+00	4.667E-26	1.472E-25	5.848E-25	2.901E-24	5.709E-23	1.171E-08	5.526E-08
U-234	U-234	1.000E+00		1.605E-19	1.653E-19	1.751E-19	2.144E-19	3.821E-19	2.889E-18	3.536E-04	1.504E-03
U-234	U-238	1.000E+00		0.000E+00	4.685E-25	1.489E-24	6.077E-24	3.250E-23	8.192E-22	3.009E-07	4.271E-06
U-234	ΣDOSE(j):			1.605E-19	1.653E-19	1.751E-19	2.144E-19	3.821E-19	2.890E-18	3.539E-04	1.509E-03
Th-230	Pu-238	1.000E+00		0.000E+00	2.157E-30	2.043E-29	2.710E-28	4.055E-27	2.696E-25	1.663E-11	3.444E-10
Th-230	U-234	1.000E+00		0.000E+00	1.526E-23	4.841E-23	1.962E-22	1.029E-21	2.427E-20	7.458E-07	1.088E-05
Th-230	U-238	1.000E+00		0.000E+00	2.163E-29	2.058E-28	2.781E-27	4.374E-26	3.430E-24	3.143E-10	1.495E-08
Th-230	ΣDOSE(j):			0.000E+00	1.526E-23	4.841E-23	1.962E-22	1.030E-21	2.427E-20	7.461E-07	1.090E-05
Ra-226	Pu-238	1.000E+00		0.000E+00	1.817E-23	5.006E-22	1.990E-20	6.582E-19	4.991E-17	7.699E-11	5.611E-09
Ra-226	U-234	1.000E+00		0.000E+00	1.926E-16	1.776E-15	2.145E-14	2.452E-13	6.296E-12	4.371E-06	1.928E-04
Ra-226	U-238	1.000E+00		0.000E+00	1.821E-22	5.035E-21	2.029E-19	6.968E-18	5.993E-16	1.265E-09	1.936E-07
Ra-226	ΣDOSE(j):			0.000E+00	1.926E-16	1.776E-15	2.145E-14	2.453E-13	6.296E-12	4.372E-06	1.930E-04
Pb-210	Pu-238	1.000E+00		0.000E+00	0.000E+00	5.367E-33	7.526E-31	8.826E-29	4.233E-26	7.881E-11	5.885E-09
Pb-210	U-234	1.000E+00		0.000E+00	9.016E-28	2.524E-26	1.062E-24	4.163E-23	6.219E-21	4.730E-06	2.038E-04
Pb-210	U-238	1.000E+00		0.000E+00	0.000E+00	5.401E-32	7.643E-30	9.250E-28	4.962E-25	1.252E-09	1.982E-07
Pb-210	ΣDOSE(j):			0.000E+00	9.016E-28	2.524E-26	1.062E-24	4.163E-23	6.219E-21	4.731E-06	2.040E-04
U-235	U-235	1.000E+00		1.728E-12	1.763E-12	1.837E-12	2.121E-12	3.196E-12	1.343E-11	3.339E-04	2.842E-03
Pa-231	U-235	1.000E+00		0.000E+00	2.545E-16	7.895E-16	2.958E-15	1.240E-14	1.331E-13	3.044E-04	3.080E-03
Ac-227	U-235	1.000E+00		0.000E+00	3.602E-17	3.278E-16	3.797E-15	3.909E-14	7.008E-08	9.207E-05	1.054E-03
U-238	U-238	1.000E+00		2.912E-10	2.952E-10	3.033E-10	3.336E-10	4.378E-10	1.133E-09	3.364E-04	1.687E-03

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

Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	BRF(i)	S(j,t), pCi/g								
			t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	Am-241	1.000E+00		4.000E-03	3.982E-03	3.946E-03	3.824E-03	3.494E-03	2.548E-03	1.034E-03	4.396E-05
Np-237	Am-241	1.000E+00		0.000E+00	1.293E-09	3.859E-09	1.265E-08	3.623E-08	1.030E-07	2.044E-07	2.376E-07
U-233	Am-241	1.000E+00		0.000E+00	2.827E-15	2.535E-14	2.778E-13	2.404E-12	2.336E-11	1.464E-10	5.632E-10
Th-229	Am-241	1.000E+00		0.000E+00	8.904E-20	2.397E-18	8.785E-17	2.302E-15	7.698E-14	1.577E-12	2.578E-11
Co-60	Co-60	1.000E+00		2.000E-03	1.752E-03	1.343E-03	5.307E-04	3.737E-05	3.461E-09	1.037E-20	0.000E+00
Cs-137	Cs-137	1.000E+00		4.000E-01	3.864E-01	3.607E-01	2.833E-01	1.422E-01	1.272E-02	1.287E-05	4.238E-16
H-3	H-3	1.000E+00		8.000E-01	5.102E-01	2.075E-01	8.903E-03	1.103E-06	2.331E-20	0.000E+00	0.000E+00
Pu-238	Pu-238	1.000E+00		4.000E-04	3.968E-04	3.906E-04	3.696E-04	3.155E-04	1.813E-04	3.726E-05	1.466E-07
U-234	Pu-238	1.000E+00		0.000E+00	1.129E-09	3.361E-09	1.089E-08	3.019E-08	7.749E-08	1.248E-07	1.205E-07
U-234	U-234	1.000E+00		4.000E-03	3.999E-03	3.998E-03	3.992E-03	3.976E-03	3.922E-03	3.769E-03	3.282E-03
U-234	U-238	1.000E+00		0.000E+00	1.134E-08	3.400E-08	1.132E-07	3.382E-07	1.112E-06	3.207E-06	9.316E-06
U-234	ΣS(j):			4.000E-03	3.999E-03	3.998E-03	3.992E-03	3.977E-03	3.923E-03	3.773E-03	3.291E-03
Th-230	Pu-238	1.000E+00		0.000E+00	5.090E-15	4.557E-14	4.969E-13	4.242E-12	3.958E-11	2.335E-10	1.029E-09
Th-230	U-234	1.000E+00		0.000E+00	3.600E-08	1.080E-07	3.597E-07	1.077E-06	3.564E-06	1.047E-05	3.250E-05
Th-230	U-238	1.000E+00		0.000E+00	5.103E-14	4.592E-13	5.097E-12	4.575E-11	5.036E-10	4.413E-09	4.467E-08
Th-230	ΣS(j):			0.000E+00	3.600E-08	1.080E-07	3.597E-07	1.077E-06	3.564E-06	1.048E-05	3.255E-05
Ra-226	Pu-238	1.000E+00		0.000E+00	7.353E-19	1.976E-17	7.200E-16	1.856E-14	5.888E-13	1.071E-11	1.440E-10
Ra-226	U-234	1.000E+00		0.000E+00	7.796E-12	7.009E-11	7.761E-10	6.917E-09	7.428E-08	6.077E-07	4.945E-06
Ra-226	U-238	1.000E+00		0.000E+00	7.370E-18	1.988E-16	7.340E-15	1.965E-13	7.071E-12	1.759E-10	4.967E-09
Ra-226	ΣS(j):			0.000E+00	7.796E-12	7.009E-11	7.761E-10	6.917E-09	7.429E-08	6.079E-07	4.950E-06
Pb-210	Pu-238	1.000E+00		0.000E+00	5.681E-21	4.527E-19	5.282E-17	3.664E-15	2.798E-13	8.162E-12	1.333E-10
Pb-210	U-234	1.000E+00		0.000E+00	8.015E-14	2.129E-12	7.452E-11	1.728E-09	4.111E-08	4.899E-07	4.615E-06
Pb-210	U-238	1.000E+00		0.000E+00	6.068E-20	4.555E-18	5.365E-16	3.841E-14	3.280E-12	1.296E-10	4.490E-09
Pb-210	ΣS(j):			0.000E+00	8.015E-14	2.129E-12	7.452E-11	1.728E-09	4.111E-08	4.901E-07	4.620E-06
U-235	U-235	1.000E+00		4.000E-03	3.999E-03	3.998E-03	3.992E-03	3.977E-03	3.923E-03	3.773E-03	3.291E-03
Pa-231	U-235	1.000E+00		0.000E+00	8.457E-08	2.534E-07	8.405E-07	2.487E-06	7.901E-06	2.071E-05	4.412E-05
Ac-227	U-235	1.000E+00		0.000E+00	1.331E-09	1.170E-08	1.198E-07	8.685E-07	5.289E-06	1.745E-05	3.995E-05
U-238	U-238	1.000E+00		4.000E-03	3.999E-03	3.998E-03	3.992E-03	3.977E-03	3.923E-03	3.773E-03	3.291E-03

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

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Dose Conversion Factor (and Related) Parameter Summary  
File: DOSFAC.BIN

Menu	Parameter	Current Value	Default	Parameter Name
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	Ac-227+D	6.720E+00	6.720E+00	DCF2( 1)
B-1	Am-241	4.440E-01	4.440E-01	DCF2( 2)
B-1	Co-60	2.190E-04	2.190E-04	DCF2( 3)
B-1	Cs-137+D	3.190E-05	3.190E-05	DCF2( 4)
B-1	H-3	6.400E-08	6.400E-08	DCF2( 5)
B-1	Np-237+D	5.400E-01	5.400E-01	DCF2( 6)
B-1	Pa-231	1.280E+00	1.280E+00	DCF2( 7)
B-1	Pb-210+D	2.320E-02	2.320E-02	DCF2( 8)
B-1	Pu-238	3.920E-01	3.920E-01	DCF2( 9)
B-1	Ra-226+D	8.600E-03	8.600E-03	DCF2(10)
B-1	Th-229+D	2.160E+00	2.160E+00	DCF2(11)
B-1	Th-230	3.260E-01	3.260E-01	DCF2(12)
B-1	U-233	1.350E-01	1.350E-01	DCF2(13)
B-1	U-234	1.320E-01	1.320E-01	DCF2(14)
B-1	U-235+D	1.230E-01	1.230E-01	DCF2(15)
B-1	U-238+D	1.180E-01	1.180E-01	DCF2(16)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	Ac-227+D	1.480E-02	1.480E-02	DCF3( 1)
D-1	Am-241	3.640E-03	3.640E-03	DCF3( 2)
D-1	Co-60	2.690E-05	2.690E-05	DCF3( 3)
D-1	Cs-137+D	5.000E-05	5.000E-05	DCF3( 4)
D-1	H-3	6.400E-08	6.400E-08	DCF3( 5)
D-1	Np-237+D	4.440E-03	4.440E-03	DCF3( 6)
D-1	Pa-231	1.060E-02	1.060E-02	DCF3( 7)
D-1	Pb-210+D	7.270E-03	7.270E-03	DCF3( 8)
D-1	Pu-238	3.200E-03	3.200E-03	DCF3( 9)
D-1	Ra-226+D	1.330E-03	1.330E-03	DCF3(10)
D-1	Th-229+D	4.030E-03	4.030E-03	DCF3(11)
D-1	Th-230	5.480E-04	5.480E-04	DCF3(12)
D-1	U-233	2.890E-04	2.890E-04	DCF3(13)
D-1	U-234	2.830E-04	2.830E-04	DCF3(14)
D-1	U-235+D	2.670E-04	2.670E-04	DCF3(15)
D-1	U-238+D	2.690E-04	2.690E-04	DCF3(16)
D-34	Food transfer factors:			
D-34	Ac-227+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 1,1)
D-34	Ac-227+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 1,2)
D-34	Ac-227+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-05	2.000E-05	RTF( 1,3)
D-34	Am-241 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 2,1)
D-34	Am-241 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-05	5.000E-05	RTF( 2,2)
D-34	Am-241 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 2,3)
D-34	Co-60 , plant/soil concentration ratio, dimensionless	8.000E-02	8.000E-02	RTF( 3,1)
D-34	Co-60 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 3,2)
D-34	Co-60 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 3,3)

Dose Conversion Factor (and Related) Parameter Summary (continued)  
File: DOSFAC.BIN

Menu	Parameter	Current Value	Default	Parameter Name
D-34	Cs-137+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 4,1)
D-34	Cs-137+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-02	3.000E-02	RTF( 4,2)
D-34	Cs-137+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	8.000E-03	8.000E-03	RTF( 4,3)
D-34	H-3 , plant/soil concentration ratio, dimensionless	4.800E+00	4.800E+00	RTF( 5,1)
D-34	H-3 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.200E-02	1.200E-02	RTF( 5,2)
D-34	H-3 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-02	1.000E-02	RTF( 5,3)
D-34	Np-237+D , plant/soil concentration ratio, dimensionless	2.000E-02	2.000E-02	RTF( 6,1)
D-34	Np-237+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 6,2)
D-34	Np-237+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 6,3)
D-34	Pa-231 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 7,1)
D-34	Pa-231 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 7,2)
D-34	Pa-231 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 7,3)
D-34	Pb-210+D , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 8,1)
D-34	Pb-210+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-04	8.000E-04	RTF( 8,2)
D-34	Pb-210+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 8,3)
D-34	Pu-238 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 9,1)
D-34	Pu-238 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 9,2)
D-34	Pu-238 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 9,3)
D-34	Ra-226+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF(10,1)
D-34	Ra-226+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF(10,2)
D-34	Ra-226+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF(10,3)
D-34	Th-229+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(11,1)
D-34	Th-229+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF(11,2)
D-34	Th-229+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(11,3)
D-34	Th-230 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(12,1)
D-34	Th-230 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF(12,2)
D-34	Th-230 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(12,3)
D-34	U-233 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(13,1)
D-34	U-233 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(13,2)
D-34	U-233 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(13,3)
D-34	U-234 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(14,1)
D-34	U-234 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(14,2)
D-34	U-234 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(14,3)
D-34	U-235+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(15,1)
D-34	U-235+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(15,2)
D-34	U-235+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(15,3)
D-34	U-238+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(16,1)
D-34	U-238+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(16,2)
D-34	U-238+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(16,3)

Dose Conversion Factor (and Related) Parameter Summary (continued)  
File: DOSFAC.BIN

Menu	Parameter	Current Value	Default	Parameter Name
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Ac-227+D , fish	1.500E+01	1.500E+01	BIOFAC( 1,1)
D-5	Ac-227+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 1,2)
D-5				
D-5	Am-241 , fish	3.000E+01	3.000E+01	BIOFAC( 2,1)
D-5	Am-241 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 2,2)
D-5				
D-5	Co-60 , fish	3.000E+02	3.000E+02	BIOFAC( 3,1)
D-5	Co-60 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC( 3,2)
D-5				
D-5	Cs-137+D , fish	2.000E+03	2.000E+03	BIOFAC( 4,1)
D-5	Cs-137+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 4,2)
D-5				
D-5	H-3 , fish	1.000E+00	1.000E+00	BIOFAC( 5,1)
D-5	H-3 , crustacea and mollusks	1.000E+00	1.000E+00	BIOFAC( 5,2)
D-5				
D-5	Np-237+D , fish	3.000E+01	3.000E+01	BIOFAC( 6,1)
D-5	Np-237+D , crustacea and mollusks	4.000E+02	4.000E+02	BIOFAC( 6,2)
D-5				
D-5	Pa-231 , fish	1.000E+01	1.000E+01	BIOFAC( 7,1)
D-5	Pa-231 , crustacea and mollusks	1.100E+02	1.100E+02	BIOFAC( 7,2)
D-5				
D-5	Pb-210+D , fish	3.000E+02	3.000E+02	BIOFAC( 8,1)
D-5	Pb-210+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 8,2)
D-5				
D-5	Pu-238 , fish	3.000E+01	3.000E+01	BIOFAC( 9,1)
D-5	Pu-238 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 9,2)
D-5				
D-5	Ra-226+D , fish	5.000E+01	5.000E+01	BIOFAC(10,1)
D-5	Ra-226+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC(10,2)
D-5				
D-5	Th-229+D , fish	1.000E+02	1.000E+02	BIOFAC(11,1)
D-5	Th-229+D , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC(11,2)
D-5				
D-5	Th-230 , fish	1.000E+02	1.000E+02	BIOFAC(12,1)
D-5	Th-230 , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC(12,2)
D-5				
D-5	U-233 , fish	1.000E+01	1.000E+01	BIOFAC(13,1)
D-5	U-233 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(13,2)
D-5				
D-5	U-234 , fish	1.000E+01	1.000E+01	BIOFAC(14,1)
D-5	U-234 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(14,2)
D-5				
D-5	U-235+D , fish	1.000E+01	1.000E+01	BIOFAC(15,1)
D-5	U-235+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(15,2)
D-5				
D-5	U-238+D , fish	1.000E+01	1.000E+01	BIOFAC(16,1)
D-5	U-238+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(16,2)

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	7.200E+01	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	5.800E+00	2.000E+00	---	THICKO
R011	Length parallel to aquifer flow (m)	1.200E+01	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	0.000E+00	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T( 2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T( 3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T( 4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T( 5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T( 6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T( 7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T( 8)
R011	Times for calculations (yr)	not used	0.000E+00	---	T( 9)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(10)
R012	Initial principal radionuclide (pCi/g): Am-241	4.000E-03	0.000E+00	---	S1( 2)
R012	Initial principal radionuclide (pCi/g): Co-60	2.000E-03	0.000E+00	---	S1( 3)
R012	Initial principal radionuclide (pCi/g): Cs-137	4.000E-01	0.000E+00	---	S1( 4)
R012	Initial principal radionuclide (pCi/g): H-3	8.000E-01	0.000E+00	---	S1( 5)
R012	Initial principal radionuclide (pCi/g): Pu-238	4.000E-03	0.000E+00	---	S1( 9)
R012	Initial principal radionuclide (pCi/g): U-234	4.000E-03	0.000E+00	---	S1(14)
R012	Initial principal radionuclide (pCi/g): U-235	4.000E-03	0.000E+00	---	S1(15)
R012	Initial principal radionuclide (pCi/g): U-238	4.000E-03	0.000E+00	---	S1(16)
R012	Concentration in groundwater (pCi/L): Am-241	not used	0.000E+00	---	W1( 2)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1( 3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1( 4)
R012	Concentration in groundwater (pCi/L): H-3	not used	0.000E+00	---	W1( 5)
R012	Concentration in groundwater (pCi/L): Pu-238	not used	0.000E+00	---	W1( 9)
R012	Concentration in groundwater (pCi/L): U-234	not used	0.000E+00	---	W1(14)
R012	Concentration in groundwater (pCi/L): U-235	not used	0.000E+00	---	W1(15)
R012	Concentration in groundwater (pCi/L): U-238	not used	0.000E+00	---	W1(16)
R013	Cover depth (m)	1.000E+00	0.000E+00	---	COVERO
R013	Density of cover material (g/cm**3)	1.500E+00	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	2.000E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	3.450E-04	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	3.500E-01	4.000E-01	---	TPCZ
R013	Contaminated zone effective porosity	3.500E-01	2.000E-01	---	EPCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.730E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	1.050E+01	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.867E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	8.000E+00	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.940E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	1.024E+00	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	3.500E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	5.000E+06	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	Romberg failures occurred	EPS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Density of saturated zone (g/cm**3)	1.480E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.500E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	3.500E-01	2.000E-01	---	EPSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.730E+01	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	3.000E-03	2.000E-02	---	HGWT
R014	Saturated zone b parameter	1.050E+01	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	5.000E-04	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	3.000E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	2.860E+02	2.500E+02	---	UW
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	6.100E-01	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.600E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	3.500E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	3.500E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	1.050E+01	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.730E+01	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for Am-241				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC( 2)
R016	Unsat. zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU( 2,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS( 2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.504E-03	ALEACH( 2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 2)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	5.000E+01	1.000E+03	---	DCNUCC( 3)
R016	Unsat. zone 1 (cm**3/g)	5.000E+03	1.000E+03	---	DCNUCU( 3,1)
R016	Saturated zone (cm**3/g)	5.000E+03	1.000E+03	---	DCNUCS( 3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.041E-04	ALEACH( 3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 3)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	5.000E+00	1.000E+03	---	DCNUCC( 4)
R016	Unsat. zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU( 4,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS( 4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.884E-03	ALEACH( 4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 4)
R016	Distribution coefficients for H-3				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC( 5)
R016	Unsat. zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU( 5,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS( 5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.036E-01	ALEACH( 5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 5)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Pu-238				
R016	Contaminated zone (cm**3/g)	5.000E+03	2.000E+03	---	DCNUCC( 9)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+04	2.000E+03	---	DCNUCU( 9,1)
R016	Saturated zone (cm**3/g)	1.000E+04	2.000E+03	---	DCNUCS( 9)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.059E-06	ALEACH( 9)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 9)
R016	Distribution coefficients for U-234				
R016	Contaminated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCC(14)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCU(14,1)
R016	Saturated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCS(14)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.009E-04	ALEACH(14)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(14)
R016	Distribution coefficients for U-235				
R016	Contaminated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCC(15)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCU(15,1)
R016	Saturated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCS(15)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.009E-04	ALEACH(15)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(15)
R016	Distribution coefficients for U-238				
R016	Contaminated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCC(16)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCU(16,1)
R016	Saturated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCS(16)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.009E-04	ALEACH(16)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(16)
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC( 1)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU( 1,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS( 1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.504E-03	ALEACH( 1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 1)
R016	Distribution coefficients for daughter Np-237				
R016	Contaminated zone (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCC( 6)
R016	Unsaturated zone 1 (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCU( 6,1)
R016	Saturated zone (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCS( 6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.176E-04	ALEACH( 6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 6)
R016	Distribution coefficients for daughter Pa-231				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC( 7)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU( 7,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS( 7)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.041E-04	ALEACH( 7)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 7)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for daughter Pb-210				
R016	Contaminated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCC ( 8)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCU ( 8,1)
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCS ( 8)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.025E-04	ALEACH ( 8)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK ( 8)
R016	Distribution coefficients for daughter Ra-226				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC(10)
R016	Unsaturated zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU(10,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS(10)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.319E-04	ALEACH(10)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(10)
R016	Distribution coefficients for daughter Th-229				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC(11)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU(11,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS(11)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.049E-07	ALEACH(11)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(11)
R016	Distribution coefficients for daughter Th-230				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC(12)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU(12,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS(12)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.049E-07	ALEACH(12)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(12)
R016	Distribution coefficients for daughter U-233				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC(13)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU(13,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS(13)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	6.041E-04	ALEACH(13)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(13)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	7.000E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	5.000E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	2.500E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	-1.000E+00	1.000E+00	-1 shows non-circular AREA.	FS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	5.000E+01	5.000E+01	---	RAD_SHAPE( 1)
R017	Outer annular radius (m), ring 2:	7.071E+01	7.071E+01	---	RAD_SHAPE( 2)
R017	Outer annular radius (m), ring 3:	0.000E+00	0.000E+00	---	RAD_SHAPE( 3)
R017	Outer annular radius (m), ring 4:	0.000E+00	0.000E+00	---	RAD_SHAPE( 4)
R017	Outer annular radius (m), ring 5:	0.000E+00	0.000E+00	---	RAD_SHAPE( 5)
R017	Outer annular radius (m), ring 6:	0.000E+00	0.000E+00	---	RAD_SHAPE( 6)
R017	Outer annular radius (m), ring 7:	0.000E+00	0.000E+00	---	RAD_SHAPE( 7)
R017	Outer annular radius (m), ring 8:	0.000E+00	0.000E+00	---	RAD_SHAPE( 8)
R017	Outer annular radius (m), ring 9:	0.000E+00	0.000E+00	---	RAD_SHAPE( 9)
R017	Outer annular radius (m), ring 10:	0.000E+00	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	0.000E+00	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	0.000E+00	0.000E+00	---	RAD_SHAPE(12)
R017	Fractions of annular areas within AREA:				
R017	Ring 1	1.000E+00	1.000E+00	---	FRACA( 1)
R017	Ring 2	2.732E-01	2.732E-01	---	FRACA( 2)
R017	Ring 3	0.000E+00	0.000E+00	---	FRACA( 3)
R017	Ring 4	0.000E+00	0.000E+00	---	FRACA( 4)
R017	Ring 5	0.000E+00	0.000E+00	---	FRACA( 5)
R017	Ring 6	0.000E+00	0.000E+00	---	FRACA( 6)
R017	Ring 7	0.000E+00	0.000E+00	---	FRACA( 7)
R017	Ring 8	0.000E+00	0.000E+00	---	FRACA( 8)
R017	Ring 9	0.000E+00	0.000E+00	---	FRACA( 9)
R017	Ring 10	0.000E+00	0.000E+00	---	FRACA(10)
R017	Ring 11	0.000E+00	0.000E+00	---	FRACA(11)
R017	Ring 12	0.000E+00	0.000E+00	---	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	5.200E+02	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	6.400E+01	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	3.100E+02	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	1.100E+02	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	2.100E+01	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	5.000E+00	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	7.300E+02	5.100E+02	---	DWI
R018	Contamination fraction of drinking water	1.000E+00	1.000E+00	---	FDW
R018	Contamination fraction of household water	not used	1.000E+00	---	FHHW
R018	Contamination fraction of livestock water	1.000E+00	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	1.000E+00	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	1.000E+00	5.000E-01	---	FR9
R018	Contamination fraction of plant food	1.000E+00	-1	---	FPLANT
R018	Contamination fraction of meat	1.000E+00	-1	---	FMEAT
R018	Contamination fraction of milk	1.000E+00	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	6.800E+01	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	5.500E+01	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	5.000E+01	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	1.600E+02	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	5.000E-01	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	1.000E-04	1.000E-04	---	MLFD

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	9.000E-01	9.000E-01	---	DROOT
R019	Drinking water fraction from ground water	1.000E+00	1.000E+00	---	FGWDW
R019	Household water fraction from ground water	1.000E+00	1.000E+00	---	FGWHH
R019	Livestock water fraction from ground water	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	1.000E+00	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	7.000E-01	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	1.500E+00	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	1.100E+00	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	1.700E-01	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	2.500E-01	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	8.000E-02	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	1.000E-01	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	1.000E+00	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	1.000E+00	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	2.000E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	not used	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (l/sec)	not used	7.000E-07	---	EVSN
C14	C-12 evasion flux rate from soil (l/sec)	not used	1.000E-10	---	REVSN
C14	Fraction of grain in beef cattle feed	not used	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	not used	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	not used	3.000E-07	---	DIFFL
R021	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
R021	Height of the building (room) (m)	not used	2.500E+00	---	HRM
R021	Building interior area factor	not used	0.000E+00	---	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA(1)
R021	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA(2)

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	active
4 -- meat ingestion	active
5 -- milk ingestion	active
6 -- aquatic foods	active
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	suppressed

Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
Area:	72.00 square meters	Am-241	4.000E-03
Thickness:	5.80 meters	Co-60	2.000E-03
Cover Depth:	1.00 meters	Cs-137	4.000E-01
		H-3	8.000E-01
		Pu-238	4.000E-03
		U-234	4.000E-03
		U-235	4.000E-03
		U-238	4.000E-03

Total Dose TDOSE(t), mrem/yr								
Basic Radiation Dose Limit = 25 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	3.000E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	6.345E-07	2.382E-04	9.298E-04	1.359E-03	5.167E-04	3.089E-04	3.566E-03	1.397E-02
M(t):	2.538E-08	9.527E-06	3.719E-05	5.437E-05	2.067E-05	1.235E-05	1.426E-04	5.590E-04

Maximum TDOSE(t): 1.397E-02 mrem/yr      at t = 1.000E+03 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.
Am-241	3.571E-25	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
Co-60	1.424E-07	0.2244	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
Cs-137	4.918E-07	0.7751	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
H-3	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
Pu-238	1.835E-20	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
U-234	1.605E-19	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
U-235	1.728E-12	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
U-238	2.912E-10	0.0005	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	6.345E-07	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	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 = 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.
Am-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	3.571E-25	0.0000
Co-60	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	1.424E-07	0.2244
Cs-137	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	4.918E-07	0.7751
H-3	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
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	1.835E-20	0.0000
U-234	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	1.605E-19	0.0000
U-235	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	1.728E-12	0.0000
U-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	2.912E-10	0.0005
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	6.345E-07	1.0000

\*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 = 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.
Am-241	7.820E-18	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
Co-60	1.263E-07	0.0005	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
Cs-137	4.846E-07	0.0020	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
H-3	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
Pu-238	1.893E-20	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
U-234	1.928E-16	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
U-235	1.764E-12	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
U-238	2.952E-10	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	6.112E-07	0.0026	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 = 1.000E+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.
Am-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	7.820E-18	0.0000
Co-60	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	1.263E-07	0.0005
Cs-137	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	4.846E-07	0.0020
H-3	1.188E-04	0.4989	1.805E-09	0.0000	0.000E+00	0.0000	7.444E-05	0.3125	6.279E-06	0.0264	3.801E-05	0.1596	2.376E-04	0.9974
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	1.893E-20	0.0000
U-234	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	1.928E-16	0.0000
U-235	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	1.764E-12	0.0000
U-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	2.952E-10	0.0000
Total	1.188E-04	0.4989	1.805E-09	0.0000	0.000E+00	0.0000	7.444E-05	0.3125	6.279E-06	0.0264	3.801E-05	0.1596	2.382E-04	1.0000

\*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 = 3.000E+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.
Am-241	2.426E-17	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
Co-60	9.926E-08	0.0001	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
Cs-137	4.706E-07	0.0005	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
H-3	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
Pu-238	2.458E-20	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
U-234	1.777E-15	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
U-235	1.839E-12	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
U-238	3.034E-10	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	5.701E-07	0.0006	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 = 3.000E+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.
Am-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	2.426E-17	0.0000
Co-60	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	9.926E-08	0.0001
Cs-137	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	4.706E-07	0.0005
H-3	4.519E-04	0.4860	7.058E-09	0.0000	0.000E+00	0.0000	2.998E-04	0.3224	2.873E-05	0.0309	1.488E-04	0.1601	9.292E-04	0.9994
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	2.458E-20	0.0000
U-234	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	1.777E-15	0.0000
U-235	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	1.839E-12	0.0000
U-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	3.034E-10	0.0000
Total	4.519E-04	0.4860	7.058E-09	0.0000	0.000E+00	0.0000	2.998E-04	0.3224	2.873E-05	0.0309	1.488E-04	0.1601	9.298E-04	1.0000

\*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 = 1.000E+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.
Am-241	9.100E-17	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
Co-60	4.274E-08	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
Cs-137	4.244E-07	0.0003	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
H-3	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
Pu-238	2.220E-19	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
U-234	2.149E-14	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
U-235	2.129E-12	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
U-238	3.339E-10	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	4.675E-07	0.0003	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 = 1.000E+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.
Am-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	9.100E-17	0.0000
Co-60	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	4.274E-08	0.0000
Cs-137	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	4.244E-07	0.0003
H-3	6.578E-04	0.4839	1.032E-08	0.0000	0.000E+00	0.0000	4.404E-04	0.3240	4.298E-05	0.0316	2.177E-04	0.1601	1.359E-03	0.9997
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	2.220E-19	0.0000
U-234	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	2.149E-14	0.0000
U-235	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	2.129E-12	0.0000
U-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	3.339E-10	0.0000
Total	6.578E-04	0.4839	1.032E-08	0.0000	0.000E+00	0.0000	4.404E-04	0.3240	4.298E-05	0.0316	2.177E-04	0.1601	1.359E-03	1.0000

\*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 = 3.000E+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.
Am-241	3.824E-16	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
Co-60	3.850E-09	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
Cs-137	3.161E-07	0.0006	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
H-3	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
Pu-238	6.642E-18	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
U-234	2.465E-13	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
U-235	3.257E-12	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
U-238	4.390E-10	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	3.204E-07	0.0006	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 = 3.000E+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.
Am-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	3.824E-16	0.0000
Co-60	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	3.850E-09	0.0000
Cs-137	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	3.161E-07	0.0006
H-3	2.498E-04	0.4835	3.922E-09	0.0000	0.000E+00	0.0000	1.675E-04	0.3241	1.638E-05	0.0317	8.272E-05	0.1601	5.164E-04	0.9994
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	6.642E-18	0.0000
U-234	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	2.465E-13	0.0000
U-235	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	3.257E-12	0.0000
U-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	4.390E-10	0.0000
Total	2.498E-04	0.4835	3.922E-09	0.0000	0.000E+00	0.0000	1.675E-04	0.3241	1.638E-05	0.0317	8.272E-05	0.1601	5.167E-04	1.0000

\*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 = 1.000E+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.
Am-241	4.157E-15	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
Co-60	8.440E-13	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
Cs-137	1.126E-07	0.0004	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
H-3	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
Pu-238	5.057E-16	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
U-234	6.400E-12	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
U-235	1.455E-11	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
U-238	1.144E-09	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	1.138E-07	0.0004	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 = 1.000E+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.
Am-241	2.212E-04	0.7160	7.516E-07	0.0024	0.000E+00	0.0000	8.645E-05	0.2799	2.878E-07	0.0009	4.873E-08	0.0002	3.087E-04	0.9995
Co-60	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	8.440E-13	0.0000
Cs-137	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	1.126E-07	0.0004
H-3	3.464E-12	0.0000	5.458E-17	0.0000	0.000E+00	0.0000	2.338E-12	0.0000	2.317E-13	0.0000	1.151E-12	0.0000	7.185E-12	0.0000
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	5.057E-16	0.0000
U-234	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	6.400E-12	0.0000
U-235	3.651E-08	0.0001	1.170E-10	0.0000	0.000E+00	0.0000	1.425E-08	0.0000	1.880E-11	0.0000	8.014E-11	0.0000	5.099E-08	0.0002
U-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	1.144E-09	0.0000
Total	2.212E-04	0.7162	7.517E-07	0.0024	0.000E+00	0.0000	8.646E-05	0.2799	2.879E-07	0.0009	4.881E-08	0.0002	3.089E-04	1.0000

\*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 = 3.000E+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.
Am-241	3.726E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.467E-04	0.2094	5.126E-07	0.0001	4.383E-08	0.0000	0.000E+00	0.0000
Co-60	2.964E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.429E-21	0.0000	8.777E-22	0.0000	2.001E-22	0.0000	0.000E+00	0.0000
Cs-137	5.909E-09	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.735E-05	0.0049	6.669E-06	0.0019	4.053E-06	0.0011	0.000E+00	0.0000
H-3	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
Pu-238	1.139E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.551E-04	0.0435	1.989E-07	0.0001	6.599E-09	0.0000	0.000E+00	0.0000
U-234	6.518E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.660E-04	0.1026	1.657E-06	0.0005	6.404E-06	0.0018	0.000E+00	0.0000
U-235	9.483E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	7.449E-04	0.2089	2.159E-05	0.0061	5.987E-06	0.0017	0.000E+00	0.0000
U-238	1.766E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.389E-04	0.0950	1.475E-06	0.0004	5.935E-06	0.0017	0.000E+00	0.0000
Total	2.517E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.369E-03	0.6643	3.210E-05	0.0090	2.243E-05	0.0063	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 = 3.000E+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.
Am-241	8.135E-04	0.2281	2.766E-06	0.0008	0.000E+00	0.0000	3.181E-04	0.0892	1.062E-06	0.0003	1.794E-07	0.0001	1.883E-03	0.5280
Co-60	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	4.536E-21	0.0000
Cs-137	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	2.808E-05	0.0079
H-3	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
Pu-238	4.924E-15	0.0000	1.653E-17	0.0000	0.000E+00	0.0000	1.932E-15	0.0000	1.094E-16	0.0000	2.667E-16	0.0000	1.553E-04	0.0436
U-234	1.313E-10	0.0000	4.453E-13	0.0000	0.000E+00	0.0000	5.152E-11	0.0000	2.912E-12	0.0000	6.985E-12	0.0000	3.741E-04	0.1049
U-235	4.829E-06	0.0014	1.370E-08	0.0000	0.000E+00	0.0000	1.889E-06	0.0005	8.710E-08	0.0000	9.562E-09	0.0000	7.793E-04	0.2185
U-238	3.269E-15	0.0000	1.095E-17	0.0000	0.000E+00	0.0000	1.282E-15	0.0000	7.246E-17	0.0000	1.775E-16	0.0000	3.464E-04	0.0971
Total	8.183E-04	0.2295	2.779E-06	0.0008	0.000E+00	0.0000	3.200E-04	0.0897	1.149E-06	0.0003	1.890E-07	0.0001	3.566E-03	1.0000

\*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 = 1.000E+03 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.
Am-241	4.764E-06	0.0003	1.749E-06	0.0001	0.000E+00	0.0000	3.994E-04	0.0286	2.366E-06	0.0002	2.281E-07	0.0000	1.287E-06	0.0001
Co-60	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
Cs-137	1.964E-13	0.0000	7.208E-20	0.0000	0.000E+00	0.0000	1.202E-13	0.0000	5.470E-14	0.0000	3.446E-14	0.0000	1.014E-17	0.0000
H-3	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
Pu-238	1.084E-08	0.0000	1.657E-08	0.0000	0.000E+00	0.0000	3.417E-06	0.0002	4.073E-08	0.0000	4.770E-08	0.0000	1.007E-08	0.0000
U-234	3.704E-05	0.0027	1.070E-05	0.0008	0.000E+00	0.0000	1.908E-03	0.1365	3.248E-05	0.0023	1.312E-04	0.0094	2.140E-06	0.0002
U-235	1.630E-03	0.1166	1.967E-05	0.0014	0.000E+00	0.0000	6.304E-03	0.4511	4.359E-04	0.0312	1.188E-04	0.0085	4.772E-06	0.0003
U-238	2.796E-04	0.0200	9.403E-06	0.0007	0.000E+00	0.0000	1.425E-03	0.1020	2.445E-05	0.0017	1.157E-04	0.0083	1.923E-06	0.0001
Total	1.951E-03	0.1396	4.154E-05	0.0030	0.000E+00	0.0000	1.004E-02	0.7184	4.952E-04	0.0354	3.660E-04	0.0262	1.013E-05	0.0007

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+03 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.
Am-241	6.691E-04	0.0479	2.275E-06	0.0002	0.000E+00	0.0000	2.617E-04	0.0187	8.744E-07	0.0001	1.476E-07	0.0000	1.344E-03	0.0962
Co-60	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
Cs-137	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	4.057E-13	0.0000
H-3	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
Pu-238	3.611E-11	0.0000	1.272E-13	0.0000	0.000E+00	0.0000	1.418E-11	0.0000	7.963E-13	0.0000	1.794E-12	0.0000	3.543E-06	0.0003
U-234	1.648E-07	0.0000	5.809E-10	0.0000	0.000E+00	0.0000	6.470E-08	0.0000	3.633E-09	0.0000	8.170E-09	0.0000	2.122E-03	0.1518
U-235	9.575E-05	0.0069	2.533E-07	0.0000	0.000E+00	0.0000	3.746E-05	0.0027	2.602E-06	0.0002	1.787E-07	0.0000	8.649E-03	0.6189
U-238	7.728E-11	0.0000	2.719E-13	0.0000	0.000E+00	0.0000	3.035E-11	0.0000	1.705E-12	0.0000	3.849E-12	0.0000	1.856E-03	0.1328
Total	7.650E-04	0.0547	2.529E-06	0.0002	0.000E+00	0.0000	2.992E-04	0.0214	3.480E-06	0.0002	3.345E-07	0.0000	1.397E-02	1.0000

\*Sum of all water independent and dependent pathways.

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	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	Am-241	1.000E+00		8.927E-23	9.327E-23	1.018E-22	1.384E-22	3.326E-22	7.717E-02	4.700E-01	3.311E-01
Am-241	Np-237	1.000E+00		0.000E+00	1.955E-15	6.066E-15	2.275E-14	9.560E-14	5.460E-08	7.241E-04	4.894E-03
Am-241	U-233	1.000E+00		0.000E+00	4.751E-25	4.447E-24	5.667E-23	7.545E-22	1.857E-12	4.543E-09	1.202E-07
Am-241	Th-229	1.000E+00		0.000E+00	8.641E-25	2.409E-23	9.977E-22	3.708E-20	4.205E-18	2.380E-10	3.190E-08
Am-241	ΣDSR(j)			8.927E-23	1.955E-15	6.066E-15	2.275E-14	9.560E-14	7.717E-02	4.707E-01	3.360E-01
Co-60	Co-60	1.000E+00		7.121E-05	6.314E-05	4.963E-05	2.137E-05	1.925E-06	4.220E-10	2.268E-18	0.000E+00
Cs-137	Cs-137	1.000E+00		1.230E-06	1.212E-06	1.176E-06	1.061E-06	7.902E-07	2.816E-07	7.020E-05	1.014E-12
H-3	H-3	1.000E+00		0.000E+00	2.969E-04	1.162E-03	1.699E-03	6.455E-04	8.982E-12	2.579E-34	0.000E+00
Pu-238	Pu-238	1.000E+00		4.588E-18	4.688E-18	4.894E-18	5.688E-18	8.743E-18	3.936E-17	3.879E-02	7.020E-04
Pu-238	U-234	1.000E+00		0.000E+00	1.167E-22	3.681E-22	1.463E-21	7.264E-21	1.435E-19	2.986E-05	1.498E-04
Pu-238	Th-230	1.000E+00		0.000E+00	5.393E-27	5.107E-26	6.778E-25	1.015E-23	6.762E-22	4.205E-08	8.931E-07
Pu-238	Ra-226	1.000E+00		0.000E+00	4.543E-20	1.252E-18	4.982E-17	1.652E-15	1.264E-13	2.003E-07	1.605E-05
Pu-238	Pb-210	1.000E+00		0.000E+00	1.598E-31	1.342E-29	1.884E-27	2.217E-25	1.074E-22	2.057E-07	1.690E-05
Pu-238	ΣDSR(j)			4.588E-18	4.733E-18	6.146E-18	5.551E-17	1.661E-15	1.264E-13	3.883E-02	8.857E-04
U-234	U-234	1.000E+00		4.014E-17	4.132E-17	4.378E-17	5.364E-17	9.579E-17	7.292E-16	9.093E-02	4.125E-01
U-234	Th-230	1.000E+00		0.000E+00	3.815E-21	1.210E-20	4.908E-20	2.577E-19	6.096E-18	1.891E-04	2.834E-03
U-234	Ra-226	1.000E+00		0.000E+00	4.817E-14	4.442E-13	5.372E-12	6.162E-11	1.600E-09	1.146E-03	5.582E-02
U-234	Pb-210	1.000E+00		0.000E+00	2.254E-25	6.313E-24	2.659E-22	1.047E-20	1.583E-18	1.245E-03	5.926E-02
U-234	ΣDSR(j)			4.014E-17	4.821E-14	4.442E-13	5.372E-12	6.162E-11	1.600E-09	9.351E-02	5.304E-01
U-235	U-235	1.000E+00		4.319E-10	4.409E-10	4.594E-10	5.307E-10	8.012E-10	3.388E-09	8.587E-02	7.800E-01
U-235	Pa-231	1.000E+00		0.000E+00	6.365E-14	1.976E-13	7.420E-13	3.130E-12	3.439E-11	8.364E-02	1.034E+00
U-235	Ac-227	1.000E+00		0.000E+00	9.010E-15	8.212E-14	9.555E-13	9.960E-12	1.274E-05	2.532E-02	3.483E-01
U-235	ΣDSR(j)			4.319E-10	4.409E-10	4.597E-10	5.324E-10	8.143E-10	1.275E-05	1.948E-01	2.162E+00
U-238	U-238	1.000E+00		7.280E-08	7.380E-08	7.585E-08	8.347E-08	1.097E-07	2.860E-07	8.651E-02	4.627E-01
U-238	U-234	1.000E+00		0.000E+00	1.171E-22	3.724E-22	1.521E-21	8.147E-21	2.067E-19	7.737E-05	1.171E-03
U-238	Th-230	1.000E+00		0.000E+00	5.407E-27	5.147E-26	6.956E-25	1.095E-23	8.628E-22	8.007E-08	3.958E-06
U-238	Ra-226	1.000E+00		0.000E+00	4.545E-20	1.259E-18	5.079E-17	1.750E-15	1.520E-13	3.303E-07	5.545E-05
U-238	Pb-210	1.000E+00		0.000E+00	1.562E-31	1.349E-29	1.914E-27	2.324E-25	1.261E-22	3.279E-07	5.701E-05
U-238	ΣDSR(j)			7.280E-08	7.380E-08	7.585E-08	8.347E-08	1.097E-07	2.860E-07	8.659E-02	4.640E-01

\*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 = 25 mrem/yr

Nuclide (i)	t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	*3.430E+12	*3.430E+12	*3.430E+12	*3.430E+12	*3.430E+12	3.239E+02	5.311E+01	7.441E+01
Co-60	3.511E+05	3.960E+05	5.037E+05	1.170E+06	1.299E+07	5.924E+10	*1.131E+15	*1.131E+15
Cs-137	2.033E+07	2.063E+07	2.125E+07	2.356E+07	3.164E+07	8.877E+07	3.561E+05	2.465E+13
H-3	*9.594E+15	8.419E+04	2.152E+04	1.472E+04	3.873E+04	2.783E+12	*9.594E+15	*9.594E+15
Pu-238	*1.711E+13	*1.711E+13	*1.711E+13	*1.711E+13	*1.711E+13	*1.711E+13	6.439E+02	2.823E+04
U-234	*6.245E+09	*6.245E+09	*6.245E+09	*6.245E+09	*6.245E+09	*6.245E+09	2.673E+02	4.713E+01
U-235	*2.160E+06	*2.160E+06	*2.160E+06	*2.160E+06	*2.160E+06	1.961E+06	1.283E+02	1.156E+01
U-238	*3.360E+05	*3.360E+05	*3.360E+05	*3.360E+05	*3.360E+05	*3.360E+05	2.887E+02	5.388E+01

\*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 = 1.000E+03 years

Nuclide (i)	Initial pCi/g	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
Am-241	4.000E-03	464.6 ± 0.9	5.338E-01	4.684E+01	3.360E-01	7.441E+01
Co-60	2.000E-03	0.000E+00	7.121E-05	3.511E+05	0.000E+00	*1.131E+15
Cs-137	4.000E-01	134.6 ± 0.3	1.465E-03	1.706E+04	1.014E-12	2.465E+13
H-3	8.000E-01	8.06 ± 0.02	1.738E-03	1.439E+04	0.000E+00	*9.594E+15
Pu-238	4.000E-03	226.5 ± 0.5	4.389E-02	5.696E+02	8.857E-04	2.823E+04
U-234	4.000E-03	1.000E+03	5.304E-01	4.713E+01	5.304E-01	4.713E+01
U-235	4.000E-03	1.000E+03	2.162E+00	1.156E+01	2.162E+00	1.156E+01
U-238	4.000E-03	1.000E+03	4.640E-01	5.388E+01	4.640E-01	5.388E+01

\*At specific activity limit

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

Nuclide (j)	Parent (i)	BRF(i)	DOSE(j,t), mrem/yr							
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	Am-241	1.000E+00	3.571E-25	3.731E-25	4.073E-25	5.536E-25	1.330E-24	3.087E-04	1.880E-03	1.324E-03
Np-237	Am-241	1.000E+00	0.000E+00	7.820E-18	2.426E-17	9.100E-17	3.824E-16	2.184E-10	2.896E-06	1.958E-05
U-233	Am-241	1.000E+00	0.000E+00	1.901E-27	1.779E-26	2.267E-25	3.018E-24	7.430E-15	1.817E-11	4.808E-10
Th-229	Am-241	1.000E+00	0.000E+00	3.456E-27	9.635E-26	3.991E-24	1.483E-22	1.682E-20	9.521E-13	1.276E-10
Co-60	Co-60	1.000E+00	1.424E-07	1.263E-07	9.926E-08	4.274E-08	3.850E-09	8.440E-13	4.536E-21	0.000E+00
Cs-137	Cs-137	1.000E+00	4.918E-07	4.846E-07	4.706E-07	4.244E-07	3.161E-07	1.126E-07	2.808E-05	4.057E-13
H-3	H-3	1.000E+00	0.000E+00	2.376E-04	9.292E-04	1.359E-03	5.164E-04	7.185E-12	0.000E+00	0.000E+00
Pu-238	Pu-238	1.000E+00	1.835E-20	1.875E-20	1.957E-20	2.275E-20	3.497E-20	1.575E-19	1.552E-04	2.808E-06
U-234	Pu-238	1.000E+00	0.000E+00	4.667E-25	1.472E-24	5.851E-24	2.906E-23	5.741E-22	1.194E-07	5.992E-07
U-234	U-234	1.000E+00	1.605E-19	1.653E-19	1.751E-19	2.146E-19	3.832E-19	2.917E-18	3.637E-04	1.650E-03
U-234	U-238	1.000E+00	0.000E+00	4.685E-25	1.490E-24	6.083E-24	3.259E-23	8.270E-22	3.095E-07	4.684E-06
U-234	ΣDOSE(j):		1.605E-19	1.653E-19	1.751E-19	2.146E-19	3.832E-19	2.918E-18	3.642E-04	1.655E-03
Th-230	Pu-238	1.000E+00	0.000E+00	2.157E-29	2.043E-28	2.711E-27	4.059E-26	2.705E-24	1.682E-10	3.572E-09
Th-230	U-234	1.000E+00	0.000E+00	1.526E-23	4.841E-23	1.963E-22	1.031E-21	2.438E-20	7.564E-07	1.133E-05
Th-230	U-238	1.000E+00	0.000E+00	2.163E-29	2.059E-28	2.782E-27	4.382E-26	3.451E-24	3.203E-10	1.583E-08
Th-230	ΣDOSE(j):		0.000E+00	1.526E-23	4.841E-23	1.963E-22	1.031E-21	2.439E-20	7.569E-07	1.135E-05
Ra-226	Pu-238	1.000E+00	0.000E+00	1.817E-22	5.008E-21	1.993E-19	6.607E-18	5.055E-16	8.012E-10	6.418E-08
Ra-226	U-234	1.000E+00	0.000E+00	1.927E-16	1.777E-15	2.149E-14	2.465E-13	6.400E-12	4.585E-06	2.233E-04
Ra-226	U-238	1.000E+00	0.000E+00	1.818E-22	5.038E-21	2.032E-19	6.999E-18	6.081E-16	1.321E-09	2.218E-07
Ra-226	ΣDOSE(j):		0.000E+00	1.927E-16	1.777E-15	2.149E-14	2.465E-13	6.401E-12	4.588E-06	2.236E-04
Pb-210	Pu-238	1.000E+00	0.000E+00	0.000E+00	5.369E-32	7.538E-30	8.867E-28	4.297E-25	8.230E-10	6.759E-08
Pb-210	U-234	1.000E+00	0.000E+00	9.018E-28	2.525E-26	1.064E-24	4.187E-23	6.334E-21	4.978E-06	2.370E-04
Pb-210	U-238	1.000E+00	0.000E+00	0.000E+00	5.397E-32	7.657E-30	9.298E-28	5.045E-25	1.312E-09	2.281E-07
Pb-210	ΣDOSE(j):		0.000E+00	9.018E-28	2.525E-26	1.064E-24	4.187E-23	6.334E-21	4.980E-06	2.373E-04
U-235	U-235	1.000E+00	1.728E-12	1.763E-12	1.838E-12	2.123E-12	3.205E-12	1.355E-11	3.435E-04	3.120E-03
Pa-231	U-235	1.000E+00	0.000E+00	2.546E-16	7.903E-16	2.968E-15	1.252E-14	1.375E-13	3.346E-04	4.135E-03
Ac-227	U-235	1.000E+00	0.000E+00	3.604E-17	3.285E-16	3.822E-15	3.984E-14	5.098E-08	1.013E-04	1.393E-03
U-238	U-238	1.000E+00	2.912E-10	2.952E-10	3.034E-10	3.339E-10	4.390E-10	1.144E-09	3.461E-04	1.851E-03

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

Individual Nuclide Soil Concentration  
Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	BRF(i)	S(j,t), pCi/g							
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	Am-241	1.000E+00	4.000E-03	3.988E-03	3.963E-03	3.878E-03	3.644E-03	2.932E-03	1.575E-03	1.789E-04
Np-237	Am-241	1.000E+00	0.000E+00	1.294E-09	3.868E-09	1.275E-08	3.704E-08	1.107E-07	2.477E-07	3.658E-07
U-233	Am-241	1.000E+00	0.000E+00	2.829E-15	2.540E-14	2.797E-13	2.454E-12	2.498E-11	1.770E-10	9.525E-10
Th-229	Am-241	1.000E+00	0.000E+00	8.909E-20	2.401E-18	8.831E-17	2.338E-15	8.096E-14	1.817E-12	3.814E-11
Co-60	Co-60	1.000E+00	2.000E-03	1.752E-03	1.346E-03	5.337E-04	3.801E-05	3.662E-09	1.228E-20	0.000E+00
Cs-137	Cs-137	1.000E+00	4.000E-01	3.886E-01	3.667E-01	2.993E-01	1.676E-01	2.203E-02	6.685E-05	1.029E-13
H-3	H-3	1.000E+00	8.000E-01	6.170E-01	3.670E-01	5.956E-02	3.301E-04	4.186E-12	1.146E-34	0.000E+00
Pu-238	Pu-238	1.000E+00	4.000E-03	3.969E-03	3.906E-03	3.696E-03	3.155E-03	1.814E-03	3.732E-04	1.474E-06
U-234	Pu-238	1.000E+00	0.000E+00	1.129E-08	3.361E-08	1.090E-07	3.024E-07	7.792E-07	1.273E-06	1.310E-06
U-234	U-234	1.000E+00	4.000E-03	4.000E-03	3.999E-03	3.996E-03	3.988E-03	3.959E-03	3.877E-03	3.606E-03
U-234	U-238	1.000E+00	0.000E+00	1.134E-08	3.401E-08	1.133E-07	3.392E-07	1.122E-06	3.299E-06	1.024E-05
U-234	ΣS(j):		4.000E-03	4.000E-03	3.999E-03	3.996E-03	3.988E-03	3.961E-03	3.882E-03	3.617E-03
Th-230	Pu-238	1.000E+00	0.000E+00	5.090E-14	4.557E-13	4.970E-12	4.246E-11	3.972E-10	2.361E-09	1.073E-08
Th-230	U-234	1.000E+00	0.000E+00	3.601E-08	1.080E-07	3.599E-07	1.078E-06	3.580E-06	1.062E-05	3.404E-05
Th-230	U-238	1.000E+00	0.000E+00	5.104E-14	4.593E-13	5.100E-12	4.584E-11	5.068E-10	4.496E-09	4.753E-08
Th-230	ΣS(j):		0.000E+00	3.601E-08	1.080E-07	3.599E-07	1.078E-06	3.581E-06	1.063E-05	3.410E-05
Ra-226	Pu-238	1.000E+00	0.000E+00	7.354E-18	1.977E-16	7.209E-15	1.864E-13	5.964E-12	1.114E-10	1.647E-09
Ra-226	U-234	1.000E+00	0.000E+00	7.797E-12	7.013E-11	7.774E-10	6.951E-09	7.551E-08	6.376E-07	5.729E-06
Ra-226	U-238	1.000E+00	0.000E+00	7.357E-18	1.988E-16	7.351E-15	1.974E-13	7.175E-12	1.837E-10	5.692E-09
Ra-226	ΣS(j):		0.000E+00	7.797E-12	7.013E-11	7.774E-10	6.952E-09	7.552E-08	6.379E-07	5.737E-06
Pb-210	Pu-238	1.000E+00	0.000E+00	5.683E-20	4.529E-18	5.290E-16	3.681E-14	2.841E-12	8.523E-11	1.532E-09
Pb-210	U-234	1.000E+00	0.000E+00	8.016E-14	2.130E-12	7.466E-11	1.738E-09	4.187E-08	5.157E-07	5.371E-06
Pb-210	U-238	1.000E+00	0.000E+00	5.554E-20	4.552E-18	5.374E-16	3.860E-14	3.335E-12	1.358E-10	5.169E-09
Pb-210	ΣS(j):		0.000E+00	8.016E-14	2.130E-12	7.466E-11	1.738E-09	4.187E-08	5.159E-07	5.378E-06
U-235	U-235	1.000E+00	4.000E-03	4.000E-03	3.999E-03	3.996E-03	3.988E-03	3.960E-03	3.881E-03	3.616E-03
Pa-231	U-235	1.000E+00	0.000E+00	8.460E-08	2.536E-07	8.433E-07	2.512E-06	8.162E-06	2.279E-05	5.954E-05
Ac-227	U-235	1.000E+00	0.000E+00	1.332E-09	1.172E-08	1.206E-07	8.851E-07	5.579E-06	1.978E-05	5.570E-05
U-238	U-238	1.000E+00	4.000E-03	4.000E-03	3.999E-03	3.996E-03	3.988E-03	3.960E-03	3.881E-03	3.616E-03

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

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Dose Conversion Factor (and Related) Parameter Summary  
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Menu	Parameter	Current Value	Default	Parameter Name
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	Ac-227+D	6.720E+00	6.720E+00	DCF2( 1)
B-1	Am-241	4.440E-01	4.440E-01	DCF2( 2)
B-1	Co-60	2.190E-04	2.190E-04	DCF2( 3)
B-1	Cs-137+D	3.190E-05	3.190E-05	DCF2( 4)
B-1	H-3	6.400E-08	6.400E-08	DCF2( 5)
B-1	Np-237+D	5.400E-01	5.400E-01	DCF2( 6)
B-1	Pa-231	1.280E+00	1.280E+00	DCF2( 7)
B-1	Pb-210+D	2.320E-02	2.320E-02	DCF2( 8)
B-1	Pu-238	3.920E-01	3.920E-01	DCF2( 9)
B-1	Ra-226+D	8.600E-03	8.600E-03	DCF2(10)
B-1	Th-229+D	2.160E+00	2.160E+00	DCF2(11)
B-1	Th-230	3.260E-01	3.260E-01	DCF2(12)
B-1	U-233	1.350E-01	1.350E-01	DCF2(13)
B-1	U-234	1.320E-01	1.320E-01	DCF2(14)
B-1	U-235+D	1.230E-01	1.230E-01	DCF2(15)
B-1	U-238+D	1.180E-01	1.180E-01	DCF2(16)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	Ac-227+D	1.480E-02	1.480E-02	DCF3( 1)
D-1	Am-241	3.640E-03	3.640E-03	DCF3( 2)
D-1	Co-60	2.690E-05	2.690E-05	DCF3( 3)
D-1	Cs-137+D	5.000E-05	5.000E-05	DCF3( 4)
D-1	H-3	6.400E-08	6.400E-08	DCF3( 5)
D-1	Np-237+D	4.440E-03	4.440E-03	DCF3( 6)
D-1	Pa-231	1.060E-02	1.060E-02	DCF3( 7)
D-1	Pb-210+D	7.270E-03	7.270E-03	DCF3( 8)
D-1	Pu-238	3.200E-03	3.200E-03	DCF3( 9)
D-1	Ra-226+D	1.330E-03	1.330E-03	DCF3(10)
D-1	Th-229+D	4.030E-03	4.030E-03	DCF3(11)
D-1	Th-230	5.480E-04	5.480E-04	DCF3(12)
D-1	U-233	2.890E-04	2.890E-04	DCF3(13)
D-1	U-234	2.830E-04	2.830E-04	DCF3(14)
D-1	U-235+D	2.670E-04	2.670E-04	DCF3(15)
D-1	U-238+D	2.690E-04	2.690E-04	DCF3(16)
D-34	Food transfer factors:			
D-34	Ac-227+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF( 1,1)
D-34	Ac-227+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF( 1,2)
D-34	Ac-227+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-05	2.000E-05	RTF( 1,3)
D-34	Am-241 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 2,1)
D-34	Am-241 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-05	5.000E-05	RTF( 2,2)
D-34	Am-241 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-06	2.000E-06	RTF( 2,3)
D-34	Co-60 , plant/soil concentration ratio, dimensionless	8.000E-02	8.000E-02	RTF( 3,1)
D-34	Co-60 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-02	2.000E-02	RTF( 3,2)
D-34	Co-60 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-03	2.000E-03	RTF( 3,3)

Dose Conversion Factor (and Related) Parameter Summary (continued)  
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Menu	Parameter	Current Value	Default	Parameter Name
D-34	Cs-137+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF( 4,1)
D-34	Cs-137+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.000E-02	3.000E-02	RTF( 4,2)
D-34	Cs-137+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	8.000E-03	8.000E-03	RTF( 4,3)
D-34				
D-34	H-3 , plant/soil concentration ratio, dimensionless	4.800E+00	4.800E+00	RTF( 5,1)
D-34	H-3 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.200E-02	1.200E-02	RTF( 5,2)
D-34	H-3 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-02	1.000E-02	RTF( 5,3)
D-34				
D-34	Np-237+D , plant/soil concentration ratio, dimensionless	2.000E-02	2.000E-02	RTF( 6,1)
D-34	Np-237+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF( 6,2)
D-34	Np-237+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 6,3)
D-34				
D-34	Pa-231 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 7,1)
D-34	Pa-231 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF( 7,2)
D-34	Pa-231 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF( 7,3)
D-34				
D-34	Pb-210+D , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF( 8,1)
D-34	Pb-210+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	8.000E-04	8.000E-04	RTF( 8,2)
D-34	Pb-210+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF( 8,3)
D-34				
D-34	Pu-238 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF( 9,1)
D-34	Pu-238 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF( 9,2)
D-34	Pu-238 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-06	1.000E-06	RTF( 9,3)
D-34				
D-34	Ra-226+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF(10,1)
D-34	Ra-226+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF(10,2)
D-34	Ra-226+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF(10,3)
D-34				
D-34	Th-229+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(11,1)
D-34	Th-229+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF(11,2)
D-34	Th-229+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(11,3)
D-34				
D-34	Th-230 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(12,1)
D-34	Th-230 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF(12,2)
D-34	Th-230 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(12,3)
D-34				
D-34	U-233 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(13,1)
D-34	U-233 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(13,2)
D-34	U-233 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(13,3)
D-34				
D-34	U-234 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(14,1)
D-34	U-234 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(14,2)
D-34	U-234 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(14,3)
D-34				
D-34	U-235+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(15,1)
D-34	U-235+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(15,2)
D-34	U-235+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(15,3)
D-34				
D-34	U-238+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(16,1)
D-34	U-238+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(16,2)
D-34	U-238+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(16,3)

Dose Conversion Factor (and Related) Parameter Summary (continued)  
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Menu	Parameter	Current Value	Default	Parameter Name
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Ac-227+D , fish	1.500E+01	1.500E+01	BIOFAC( 1,1)
D-5	Ac-227+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 1,2)
D-5	Am-241 , fish	3.000E+01	3.000E+01	BIOFAC( 2,1)
D-5	Am-241 , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC( 2,2)
D-5	Co-60 , fish	3.000E+02	3.000E+02	BIOFAC( 3,1)
D-5	Co-60 , crustacea and mollusks	2.000E+02	2.000E+02	BIOFAC( 3,2)
D-5	Cs-137+D , fish	2.000E+03	2.000E+03	BIOFAC( 4,1)
D-5	Cs-137+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 4,2)
D-5	H-3 , fish	1.000E+00	1.000E+00	BIOFAC( 5,1)
D-5	H-3 , crustacea and mollusks	1.000E+00	1.000E+00	BIOFAC( 5,2)
D-5	Np-237+D , fish	3.000E+01	3.000E+01	BIOFAC( 6,1)
D-5	Np-237+D , crustacea and mollusks	4.000E+02	4.000E+02	BIOFAC( 6,2)
D-5	Pa-231 , fish	1.000E+01	1.000E+01	BIOFAC( 7,1)
D-5	Pa-231 , crustacea and mollusks	1.100E+02	1.100E+02	BIOFAC( 7,2)
D-5	Pb-210+D , fish	3.000E+02	3.000E+02	BIOFAC( 8,1)
D-5	Pb-210+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 8,2)
D-5	Pu-238 , fish	3.000E+01	3.000E+01	BIOFAC( 9,1)
D-5	Pu-238 , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC( 9,2)
D-5	Ra-226+D , fish	5.000E+01	5.000E+01	BIOFAC(10,1)
D-5	Ra-226+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC(10,2)
D-5	Th-229+D , fish	1.000E+02	1.000E+02	BIOFAC(11,1)
D-5	Th-229+D , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC(11,2)
D-5	Th-230 , fish	1.000E+02	1.000E+02	BIOFAC(12,1)
D-5	Th-230 , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC(12,2)
D-5	U-233 , fish	1.000E+01	1.000E+01	BIOFAC(13,1)
D-5	U-233 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(13,2)
D-5	U-234 , fish	1.000E+01	1.000E+01	BIOFAC(14,1)
D-5	U-234 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(14,2)
D-5	U-235+D , fish	1.000E+01	1.000E+01	BIOFAC(15,1)
D-5	U-235+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(15,2)
D-5	U-238+D , fish	1.000E+01	1.000E+01	BIOFAC(16,1)
D-5	U-238+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(16,2)

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	2.500E+02	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	2.000E+00	2.000E+00	---	THICKO
R011	Length parallel to aquifer flow (m)	4.200E+01	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	2.500E+01	3.000E+01	---	BRDL
R011	Time since placement of material (yr)	0.000E+00	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T( 2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T( 3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T( 4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T( 5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T( 6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T( 7)
R011	Times for calculations (yr)	1.000E+03	1.000E+03	---	T( 8)
R011	Times for calculations (yr)	not used	0.000E+00	---	T( 9)
R011	Times for calculations (yr)	not used	0.000E+00	---	T(10)
R012	Initial principal radionuclide (pCi/g): Am-241	4.000E-03	0.000E+00	---	S1( 2)
R012	Initial principal radionuclide (pCi/g): Co-60	2.000E-03	0.000E+00	---	S1( 3)
R012	Initial principal radionuclide (pCi/g): Cs-137	4.000E-01	0.000E+00	---	S1( 4)
R012	Initial principal radionuclide (pCi/g): H-3	8.000E-01	0.000E+00	---	S1( 5)
R012	Initial principal radionuclide (pCi/g): Pu-238	4.000E-03	0.000E+00	---	S1( 9)
R012	Initial principal radionuclide (pCi/g): U-234	4.000E-03	0.000E+00	---	S1(14)
R012	Initial principal radionuclide (pCi/g): U-235	4.000E-03	0.000E+00	---	S1(15)
R012	Initial principal radionuclide (pCi/g): U-238	4.000E-03	0.000E+00	---	S1(16)
R012	Concentration in groundwater (pCi/L): Am-241	not used	0.000E+00	---	W1( 2)
R012	Concentration in groundwater (pCi/L): Co-60	not used	0.000E+00	---	W1( 3)
R012	Concentration in groundwater (pCi/L): Cs-137	not used	0.000E+00	---	W1( 4)
R012	Concentration in groundwater (pCi/L): H-3	not used	0.000E+00	---	W1( 5)
R012	Concentration in groundwater (pCi/L): Pu-238	not used	0.000E+00	---	W1( 9)
R012	Concentration in groundwater (pCi/L): U-234	not used	0.000E+00	---	W1(14)
R012	Concentration in groundwater (pCi/L): U-235	not used	0.000E+00	---	W1(15)
R012	Concentration in groundwater (pCi/L): U-238	not used	0.000E+00	---	W1(16)
R013	Cover depth (m)	1.000E+00	0.000E+00	---	COVERO
R013	Density of cover material (g/cm**3)	1.500E+00	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	2.000E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	3.450E-04	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	3.500E-01	4.000E-01	---	TPCZ
R013	Contaminated zone effective porosity	3.500E-01	2.000E-01	---	EPCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.730E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	1.050E+01	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	3.867E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	8.000E+00	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.940E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	1.024E+00	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	2.000E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	3.500E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	5.000E+06	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	Romberg failures occurred	EPS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Density of saturated zone (g/cm**3)	1.480E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.500E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	3.500E-01	2.000E-01	---	EPSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.730E+01	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	3.000E-03	2.000E-02	---	HGWT
R014	Saturated zone b parameter	1.050E+01	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	5.000E-04	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	3.000E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	2.860E+02	2.500E+02	---	UW
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	6.100E-01	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.600E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	3.500E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	3.500E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	1.050E+01	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.730E+01	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for Am-241				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC( 2)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU( 2,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS( 2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.360E-03	ALEACH( 2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 2)
R016	Distribution coefficients for Co-60				
R016	Contaminated zone (cm**3/g)	5.000E+01	1.000E+03	---	DCNUCC( 3)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+03	1.000E+03	---	DCNUCU( 3,1)
R016	Saturated zone (cm**3/g)	5.000E+03	1.000E+03	---	DCNUCS( 3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.752E-03	ALEACH( 3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 3)
R016	Distribution coefficients for Cs-137				
R016	Contaminated zone (cm**3/g)	5.000E+00	1.000E+03	---	DCNUCC( 4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCU( 4,1)
R016	Saturated zone (cm**3/g)	1.000E+03	1.000E+03	---	DCNUCS( 4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.706E-02	ALEACH( 4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 4)
R016	Distribution coefficients for H-3				
R016	Contaminated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCC( 5)
R016	Unsaturated zone 1 (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCU( 5,1)
R016	Saturated zone (cm**3/g)	0.000E+00	0.000E+00	---	DCNUCS( 5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	5.905E-01	ALEACH( 5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 5)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for Pu-238				
R016	Contaminated zone (cm**3/g)	5.000E+03	2.000E+03	---	DCNUCC( 9)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+04	2.000E+03	---	DCNUCU( 9,1)
R016	Saturated zone (cm**3/g)	1.000E+04	2.000E+03	---	DCNUCS( 9)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.757E-05	ALEACH( 9)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 9)
R016	Distribution coefficients for U-234				
R016	Contaminated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCC(14)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCU(14,1)
R016	Saturated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCS(14)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.927E-04	ALEACH(14)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(14)
R016	Distribution coefficients for U-235				
R016	Contaminated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCC(15)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCU(15,1)
R016	Saturated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCS(15)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.927E-04	ALEACH(15)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(15)
R016	Distribution coefficients for U-238				
R016	Contaminated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCC(16)
R016	Unsaturated zone 1 (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCU(16,1)
R016	Saturated zone (cm**3/g)	3.000E+02	5.000E+01	---	DCNUCS(16)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.927E-04	ALEACH(16)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(16)
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC( 1)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU( 1,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS( 1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	4.360E-03	ALEACH( 1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 1)
R016	Distribution coefficients for daughter Np-237				
R016	Contaminated zone (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCC( 6)
R016	Unsaturated zone 1 (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCU( 6,1)
R016	Saturated zone (cm**3/g)	-1.000E+00	-1.000E+00	2.574E+02	DCNUCS( 6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.411E-04	ALEACH( 6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 6)
R016	Distribution coefficients for daughter Pa-231				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC( 7)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU( 7,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS( 7)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.752E-03	ALEACH( 7)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 7)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for daughter Pb-210				
R016	Contaminated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCC( 8)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCU( 8,1)
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCS( 8)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	8.773E-04	ALEACH( 8)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK( 8)
R016	Distribution coefficients for daughter Ra-226				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC(10)
R016	Unsaturated zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU(10,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS(10)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.252E-03	ALEACH(10)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(10)
R016	Distribution coefficients for daughter Th-229				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC(11)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU(11,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS(11)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.464E-06	ALEACH(11)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(11)
R016	Distribution coefficients for daughter Th-230				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC(12)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU(12,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS(12)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.464E-06	ALEACH(12)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(12)
R016	Distribution coefficients for daughter U-233				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC(13)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU(13,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS(13)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.752E-03	ALEACH(13)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(13)
R017	Inhalation rate (m**3/yr)	8.400E+03	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	1.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	3.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	4.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	7.000E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	5.000E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	2.500E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	-1.000E+00	1.000E+00	-1 shows non-circular AREA.	FS

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	5.000E+01	5.000E+01	---	RAD_SHAPE( 1)
R017	Outer annular radius (m), ring 2:	7.071E+01	7.071E+01	---	RAD_SHAPE( 2)
R017	Outer annular radius (m), ring 3:	0.000E+00	0.000E+00	---	RAD_SHAPE( 3)
R017	Outer annular radius (m), ring 4:	0.000E+00	0.000E+00	---	RAD_SHAPE( 4)
R017	Outer annular radius (m), ring 5:	0.000E+00	0.000E+00	---	RAD_SHAPE( 5)
R017	Outer annular radius (m), ring 6:	0.000E+00	0.000E+00	---	RAD_SHAPE( 6)
R017	Outer annular radius (m), ring 7:	0.000E+00	0.000E+00	---	RAD_SHAPE( 7)
R017	Outer annular radius (m), ring 8:	0.000E+00	0.000E+00	---	RAD_SHAPE( 8)
R017	Outer annular radius (m), ring 9:	0.000E+00	0.000E+00	---	RAD_SHAPE( 9)
R017	Outer annular radius (m), ring 10:	0.000E+00	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	0.000E+00	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	0.000E+00	0.000E+00	---	RAD_SHAPE(12)
R017	Fractions of annular areas within AREA:				
R017	Ring 1	1.000E+00	1.000E+00	---	FRACA( 1)
R017	Ring 2	2.732E-01	2.732E-01	---	FRACA( 2)
R017	Ring 3	0.000E+00	0.000E+00	---	FRACA( 3)
R017	Ring 4	0.000E+00	0.000E+00	---	FRACA( 4)
R017	Ring 5	0.000E+00	0.000E+00	---	FRACA( 5)
R017	Ring 6	0.000E+00	0.000E+00	---	FRACA( 6)
R017	Ring 7	0.000E+00	0.000E+00	---	FRACA( 7)
R017	Ring 8	0.000E+00	0.000E+00	---	FRACA( 8)
R017	Ring 9	0.000E+00	0.000E+00	---	FRACA( 9)
R017	Ring 10	0.000E+00	0.000E+00	---	FRACA(10)
R017	Ring 11	0.000E+00	0.000E+00	---	FRACA(11)
R017	Ring 12	0.000E+00	0.000E+00	---	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	5.200E+02	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	6.400E+01	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	3.100E+02	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	1.100E+02	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	2.100E+01	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	5.000E+00	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	3.650E+01	3.650E+01	---	SOIL
R018	Drinking water intake (L/yr)	7.300E+02	5.100E+02	---	DWI
R018	Contamination fraction of drinking water	1.000E+00	1.000E+00	---	FDW
R018	Contamination fraction of household water	not used	1.000E+00	---	FHHW
R018	Contamination fraction of livestock water	1.000E+00	1.000E+00	---	FLW
R018	Contamination fraction of irrigation water	1.000E+00	1.000E+00	---	FIRW
R018	Contamination fraction of aquatic food	1.000E+00	5.000E-01	---	FR9
R018	Contamination fraction of plant food	1.000E+00	-1	---	FPLANT
R018	Contamination fraction of meat	1.000E+00	-1	---	FMEAT
R018	Contamination fraction of milk	1.000E+00	-1	---	FMILK
R019	Livestock fodder intake for meat (kg/day)	6.800E+01	6.800E+01	---	LFI5
R019	Livestock fodder intake for milk (kg/day)	5.500E+01	5.500E+01	---	LFI6
R019	Livestock water intake for meat (L/day)	5.000E+01	5.000E+01	---	LWI5
R019	Livestock water intake for milk (L/day)	1.600E+02	1.600E+02	---	LWI6
R019	Livestock soil intake (kg/day)	5.000E-01	5.000E-01	---	LSI
R019	Mass loading for foliar deposition (g/m**3)	1.000E-04	1.000E-04	---	MLFD

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R019	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
R019	Depth of roots (m)	9.000E-01	9.000E-01	---	DROOT
R019	Drinking water fraction from ground water	1.000E+00	1.000E+00	---	FGWDW
R019	Household water fraction from ground water	1.000E+00	1.000E+00	---	FGWHH
R019	Livestock water fraction from ground water	not used	1.000E+00	---	FGWLW
R019	Irrigation fraction from ground water	1.000E+00	1.000E+00	---	FGWIR
R19B	Wet weight crop yield for Non-Leafy (kg/m**2)	7.000E-01	7.000E-01	---	YV(1)
R19B	Wet weight crop yield for Leafy (kg/m**2)	1.500E+00	1.500E+00	---	YV(2)
R19B	Wet weight crop yield for Fodder (kg/m**2)	1.100E+00	1.100E+00	---	YV(3)
R19B	Growing Season for Non-Leafy (years)	1.700E-01	1.700E-01	---	TE(1)
R19B	Growing Season for Leafy (years)	2.500E-01	2.500E-01	---	TE(2)
R19B	Growing Season for Fodder (years)	8.000E-02	8.000E-02	---	TE(3)
R19B	Translocation Factor for Non-Leafy	1.000E-01	1.000E-01	---	TIV(1)
R19B	Translocation Factor for Leafy	1.000E+00	1.000E+00	---	TIV(2)
R19B	Translocation Factor for Fodder	1.000E+00	1.000E+00	---	TIV(3)
R19B	Dry Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RDRY(1)
R19B	Dry Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RDRY(2)
R19B	Dry Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RDRY(3)
R19B	Wet Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RWET(1)
R19B	Wet Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RWET(2)
R19B	Wet Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RWET(3)
R19B	Weathering Removal Constant for Vegetation	2.000E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	not used	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12C2
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07	---	EVSN
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10	---	REVSN
C14	Fraction of grain in beef cattle feed	not used	8.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	not used	2.000E-01	---	AVFG5
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	not used	1.500E-01	---	FLOOR
R021	Bulk density of building foundation (g/cm**3)	not used	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	not used	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	not used	3.000E-02	---	PH2OFL

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	not used	3.000E-07	---	DIFFL
R021	in contaminated zone soil	not used	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	not used	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	not used	5.000E-01	---	REXG
R021	Height of the building (room) (m)	not used	2.500E+00	---	HRM
R021	Building interior area factor	not used	0.000E+00	---	FAI
R021	Building depth below ground surface (m)	not used	-1.000E+00	---	DMFL
R021	Emanating power of Rn-222 gas	not used	2.500E-01	---	EMANA(1)
R021	Emanating power of Rn-220 gas	not used	1.500E-01	---	EMANA(2)

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	active
4 -- meat ingestion	active
5 -- milk ingestion	active
6 -- aquatic foods	active
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	suppressed
Find peak pathway doses	suppressed

Contaminated Zone Dimensions		Initial Soil Concentrations, pCi/g	
Area:	250.00 square meters	Am-241	4.000E-03
Thickness:	2.00 meters	Co-60	2.000E-03
Cover Depth:	1.00 meters	Cs-137	4.000E-01
		H-3	8.000E-01
		Pu-238	4.000E-03
		U-234	4.000E-03
		U-235	4.000E-03
		U-238	4.000E-03

Total Dose TDOSE(t), mrem/yr								
Basic Radiation Dose Limit = 25 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	3.000E+01	1.000E+02	3.000E+02	1.000E+03
TDOSE(t):	6.345E-07	2.142E-04	6.112E-04	5.363E-04	1.755E-04	2.915E-04	2.678E-03	9.346E-03
M(t):	2.538E-08	8.567E-06	2.445E-05	2.145E-05	7.019E-06	1.166E-05	1.071E-04	3.738E-04

Maximum TDOSE(t): 9.346E-03 mrem/yr      at t = 1.000E+03 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.
Am-241	3.571E-25	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
Co-60	1.424E-07	0.2244	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
Cs-137	4.918E-07	0.7751	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
H-3	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
Pu-238	1.835E-20	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
U-234	1.605E-19	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
U-235	1.728E-12	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
U-238	2.912E-10	0.0005	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	6.345E-07	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	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 = 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.
Am-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	3.571E-25	0.0000
Co-60	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	1.424E-07	0.2244
Cs-137	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	4.918E-07	0.7751
H-3	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
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	1.835E-20	0.0000
U-234	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	1.605E-19	0.0000
U-235	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	1.728E-12	0.0000
U-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	2.912E-10	0.0005
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	6.345E-07	1.0000

\*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 = 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.
Am-241	7.808E-18	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
Co-60	1.261E-07	0.0006	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
Cs-137	4.792E-07	0.0022	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
H-3	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
Pu-238	1.893E-20	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
U-234	1.928E-16	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
U-235	1.763E-12	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
U-238	2.951E-10	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	6.057E-07	0.0028	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 = 1.000E+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.
Am-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	7.808E-18	0.0000
Co-60	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	1.261E-07	0.0006
Cs-137	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	4.792E-07	0.0022
H-3	1.077E-04	0.5030	5.744E-09	0.0000	0.000E+00	0.0000	6.556E-05	0.3061	5.761E-06	0.0269	3.450E-05	0.1611	2.136E-04	0.9972
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	1.893E-20	0.0000
U-234	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	1.928E-16	0.0000
U-235	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	1.763E-12	0.0000
U-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	2.951E-10	0.0000
Total	1.077E-04	0.5030	5.744E-09	0.0000	0.000E+00	0.0000	6.556E-05	0.3061	5.761E-06	0.0269	3.450E-05	0.1611	2.142E-04	1.0000

\*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 = 3.000E+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.
Am-241	2.415E-17	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
Co-60	9.892E-08	0.0002	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
Cs-137	4.550E-07	0.0007	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
H-3	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
Pu-238	2.458E-20	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
U-234	1.775E-15	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
U-235	1.838E-12	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
U-238	3.032E-10	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	5.543E-07	0.0009	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 = 3.000E+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.
Am-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	2.415E-17	0.0000
Co-60	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	9.892E-08	0.0002
Cs-137	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	4.550E-07	0.0007
H-3	2.997E-04	0.4904	1.642E-08	0.0000	0.000E+00	0.0000	1.929E-04	0.3156	1.920E-05	0.0314	9.878E-05	0.1616	6.106E-04	0.9991
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	2.458E-20	0.0000
U-234	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	1.775E-15	0.0000
U-235	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	1.838E-12	0.0000
U-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	3.032E-10	0.0000
Total	2.997E-04	0.4904	1.642E-08	0.0000	0.000E+00	0.0000	1.929E-04	0.3156	1.920E-05	0.0314	9.878E-05	0.1616	6.112E-04	1.0000

\*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 = 1.000E+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.
Am-241	8.962E-17	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
Co-60	4.225E-08	0.0001	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
Cs-137	3.795E-07	0.0007	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
H-3	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
Pu-238	2.215E-19	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
U-234	2.142E-14	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
U-235	2.125E-12	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
U-238	3.333E-10	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	4.221E-07	0.0008	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 = 1.000E+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.
Am-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	8.962E-17	0.0000
Co-60	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	4.225E-08	0.0001
Cs-137	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	3.795E-07	0.0007
H-3	2.622E-04	0.4890	1.441E-08	0.0000	0.000E+00	0.0000	1.698E-04	0.3166	1.710E-05	0.0319	8.669E-05	0.1617	5.358E-04	0.9992
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	2.215E-19	0.0000
U-234	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	2.142E-14	0.0000
U-235	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	2.125E-12	0.0000
U-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	3.333E-10	0.0000
Total	2.622E-04	0.4890	1.441E-08	0.0000	0.000E+00	0.0000	1.698E-04	0.3166	1.710E-05	0.0319	8.669E-05	0.1617	5.363E-04	1.0000

\*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 = 3.000E+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.
Am-241	3.655E-16	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
Co-60	3.719E-09	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
Cs-137	2.260E-07	0.0013	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
H-3	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
Pu-238	6.591E-18	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
U-234	2.440E-13	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
U-235	3.237E-12	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
U-238	4.365E-10	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	2.302E-07	0.0013	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 = 3.000E+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.
Am-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	3.655E-16	0.0000
Co-60	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	3.719E-09	0.0000
Cs-137	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	2.260E-07	0.0013
H-3	8.577E-05	0.4888	4.714E-09	0.0000	0.000E+00	0.0000	5.553E-05	0.3164	5.594E-06	0.0319	2.835E-05	0.1616	1.753E-04	0.9987
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	6.591E-18	0.0000
U-234	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	2.440E-13	0.0000
U-235	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	3.237E-12	0.0000
U-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	4.365E-10	0.0000
Total	8.577E-05	0.4888	4.714E-09	0.0000	0.000E+00	0.0000	5.553E-05	0.3164	5.594E-06	0.0319	2.835E-05	0.1616	1.755E-04	1.0000

\*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 = 1.000E+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.
Am-241	3.597E-15	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
Co-60	7.525E-13	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
Cs-137	3.683E-08	0.0001	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
H-3	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
Pu-238	4.926E-16	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
U-234	6.190E-12	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
U-235	1.419E-11	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
U-238	1.122E-09	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	3.797E-08	0.0001	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 = 1.000E+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.
Am-241	2.075E-04	0.7119	2.469E-06	0.0085	0.000E+00	0.0000	8.113E-05	0.2783	2.702E-07	0.0009	4.573E-08	0.0002	2.915E-04	0.9997
Co-60	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	7.525E-13	0.0000
Cs-137	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	3.683E-08	0.0001
H-3	2.437E-24	0.0000	1.352E-28	0.0000	0.000E+00	0.0000	1.609E-24	0.0000	1.683E-25	0.0000	8.138E-25	0.0000	5.028E-24	0.0000
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	4.926E-16	0.0000
U-234	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	6.190E-12	0.0000
U-235	3.539E-08	0.0001	3.970E-10	0.0000	0.000E+00	0.0000	1.381E-08	0.0000	1.823E-11	0.0000	7.770E-11	0.0000	4.972E-08	0.0002
U-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	1.122E-09	0.0000
Total	2.076E-04	0.7120	2.469E-06	0.0085	0.000E+00	0.0000	8.114E-05	0.2783	2.702E-07	0.0009	4.581E-08	0.0002	2.915E-04	1.0000

\*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 = 3.000E+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.
Am-241	2.549E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.177E-04	0.1186	2.272E-07	0.0001	1.872E-08	0.0000	0.000E+00	0.0000
Co-60	2.101E-23	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	2.430E-21	0.0000	6.222E-22	0.0000	1.418E-22	0.0000	0.000E+00	0.0000
Cs-137	2.065E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.066E-07	0.0002	2.335E-07	0.0001	1.418E-07	0.0001	0.000E+00	0.0000
H-3	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
Pu-238	1.051E-13	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.546E-04	0.0577	1.982E-07	0.0001	6.500E-09	0.0000	0.000E+00	0.0000
U-234	5.915E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.452E-04	0.1289	1.560E-06	0.0006	6.040E-06	0.0023	0.000E+00	0.0000
U-235	8.768E-10	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	6.497E-04	0.2426	1.796E-05	0.0067	5.638E-06	0.0021	0.000E+00	0.0000
U-238	1.668E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	3.200E-04	0.1195	1.393E-06	0.0005	5.603E-06	0.0021	0.000E+00	0.0000
Total	1.835E-08	0.0000	0.000E+00	0.0000	0.000E+00	0.0000	1.788E-03	0.6674	2.158E-05	0.0081	1.745E-05	0.0065	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 = 3.000E+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.
Am-241	6.019E-04	0.2247	7.162E-06	0.0027	0.000E+00	0.0000	2.354E-04	0.0879	7.859E-07	0.0003	1.328E-07	0.0000	1.163E-03	0.4343
Co-60	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	3.215E-21	0.0000
Cs-137	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	9.822E-07	0.0004
H-3	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
Pu-238	4.842E-15	0.0000	5.690E-17	0.0000	0.000E+00	0.0000	1.900E-15	0.0000	1.075E-16	0.0000	2.621E-16	0.0000	1.548E-04	0.0578
U-234	1.288E-10	0.0000	1.530E-12	0.0000	0.000E+00	0.0000	5.056E-11	0.0000	2.858E-12	0.0000	6.851E-12	0.0000	3.528E-04	0.1317
U-235	4.464E-06	0.0017	4.420E-08	0.0000	0.000E+00	0.0000	1.746E-06	0.0007	8.230E-08	0.0000	8.816E-09	0.0000	6.796E-04	0.2537
U-238	5.633E-15	0.0000	6.619E-17	0.0000	0.000E+00	0.0000	2.210E-15	0.0000	1.251E-16	0.0000	3.050E-16	0.0000	3.270E-04	0.1221
Total	6.064E-04	0.2264	7.206E-06	0.0027	0.000E+00	0.0000	2.372E-04	0.0885	8.682E-07	0.0003	1.416E-07	0.0001	2.678E-03	1.0000

\*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 = 1.000E+03 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.
Am-241	3.624E-07	0.0000	1.170E-07	0.0000	0.000E+00	0.0000	3.032E-05	0.0032	2.651E-07	0.0000	1.468E-08	0.0000	2.609E-07	0.0000
Co-60	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
Cs-137	2.740E-18	0.0000	1.152E-24	0.0000	0.000E+00	0.0000	1.677E-18	0.0000	7.645E-19	0.0000	4.814E-19	0.0000	4.911E-22	0.0000
H-3	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
Pu-238	8.348E-09	0.0000	1.812E-08	0.0000	0.000E+00	0.0000	3.273E-06	0.0004	3.849E-08	0.0000	4.017E-08	0.0000	3.416E-08	0.0000
U-234	2.771E-05	0.0030	1.014E-05	0.0011	0.000E+00	0.0000	1.542E-03	0.1650	2.625E-05	0.0028	1.075E-04	0.0115	6.117E-06	0.0007
U-235	1.324E-03	0.1417	1.517E-05	0.0016	0.000E+00	0.0000	3.830E-03	0.4098	2.478E-04	0.0265	9.678E-05	0.0104	1.077E-05	0.0012
U-238	2.308E-04	0.0247	8.887E-06	0.0010	0.000E+00	0.0000	1.176E-03	0.1259	2.018E-05	0.0022	9.551E-05	0.0102	5.512E-06	0.0006
Total	1.583E-03	0.1694	3.433E-05	0.0037	0.000E+00	0.0000	6.582E-03	0.7042	2.946E-04	0.0315	2.998E-04	0.0321	2.269E-05	0.0024

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+03 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.
Am-241	3.024E-04	0.0324	3.598E-06	0.0004	0.000E+00	0.0000	1.183E-04	0.0127	3.953E-07	0.0000	6.672E-08	0.0000	4.560E-04	0.0488
Co-60	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
Cs-137	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	5.664E-18	0.0000
H-3	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
Pu-238	3.221E-11	0.0000	3.973E-13	0.0000	0.000E+00	0.0000	1.265E-11	0.0000	7.103E-13	0.0000	1.599E-12	0.0000	3.413E-06	0.0004
U-234	1.453E-07	0.0000	1.794E-09	0.0000	0.000E+00	0.0000	5.706E-08	0.0000	3.204E-09	0.0000	7.200E-09	0.0000	1.720E-03	0.1840
U-235	7.316E-05	0.0078	6.757E-07	0.0001	0.000E+00	0.0000	2.862E-05	0.0031	2.013E-06	0.0002	1.362E-07	0.0000	5.629E-03	0.6023
U-238	6.824E-11	0.0000	8.407E-13	0.0000	0.000E+00	0.0000	2.680E-11	0.0000	1.505E-12	0.0000	3.395E-12	0.0000	1.537E-03	0.1645
Total	3.757E-04	0.0402	4.276E-06	0.0005	0.000E+00	0.0000	1.470E-04	0.0157	2.412E-06	0.0003	2.101E-07	0.0000	9.346E-03	1.0000

\*Sum of all water independent and dependent pathways.

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

Parent (i)	Product (j)	Branch Fraction*	DSR(j,t) (mrem/yr)/(pCi/g)							
			t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	Am-241	1.000E+00	8.927E-23	9.301E-23	1.010E-22	1.345E-22	3.053E-22	7.286E-02	2.903E-01	1.118E-01
Am-241	Np-237	1.000E+00	0.000E+00	1.952E-15	6.038E-15	2.240E-14	9.136E-14	5.235E-08	4.957E-04	2.186E-03
Am-241	U-233	1.000E+00	0.000E+00	4.745E-25	4.428E-24	5.588E-23	7.236E-22	1.794E-12	3.156E-09	4.583E-08
Am-241	Th-229	1.000E+00	0.000E+00	8.632E-25	2.401E-23	9.872E-22	3.593E-20	3.798E-18	1.791E-10	1.504E-08
Am-241	ΣDSR(j)		8.927E-23	1.952E-15	6.038E-15	2.240E-14	9.136E-14	7.286E-02	2.908E-01	1.140E-01
Co-60	Co-60	1.000E+00	7.121E-05	6.306E-05	4.946E-05	2.113E-05	1.860E-06	3.763E-10	1.607E-18	0.000E+00
Cs-137	Cs-137	1.000E+00	1.230E-06	1.198E-06	1.138E-06	9.488E-07	5.650E-07	9.207E-08	2.456E-06	1.416E-17
H-3	H-3	1.000E+00	0.000E+00	2.670E-04	7.633E-04	6.698E-04	2.191E-04	6.285E-24	0.000E+00	0.000E+00
Pu-238	Pu-238	1.000E+00	4.588E-18	4.688E-18	4.893E-18	5.688E-18	8.740E-18	3.932E-17	3.866E-02	7.002E-04
Pu-238	U-234	1.000E+00	0.000E+00	1.167E-22	3.679E-22	1.461E-21	7.241E-21	1.419E-19	2.869E-05	1.271E-04
Pu-238	Th-230	1.000E+00	0.000E+00	5.393E-27	5.106E-26	6.774E-25	1.013E-23	6.714E-22	4.109E-08	8.297E-07
Pu-238	Ra-226	1.000E+00	0.000E+00	4.542E-20	1.251E-18	4.969E-17	1.639E-15	1.231E-13	1.848E-07	1.227E-05
Pu-238	Pb-210	1.000E+00	0.000E+00	1.597E-31	1.341E-29	1.878E-27	2.196E-25	1.042E-22	1.885E-07	1.281E-05
Pu-238	ΣDSR(j)		4.588E-18	4.733E-18	6.145E-18	5.538E-17	1.648E-15	1.232E-13	3.869E-02	8.532E-04
U-234	U-234	1.000E+00	4.014E-17	4.131E-17	4.376E-17	5.354E-17	9.524E-17	7.153E-16	8.585E-02	3.418E-01
U-234	Th-230	1.000E+00	0.000E+00	3.814E-21	1.210E-20	4.903E-20	2.570E-19	6.038E-18	1.838E-04	2.610E-03
U-234	Ra-226	1.000E+00	0.000E+00	4.815E-14	4.437E-13	5.354E-12	6.100E-11	1.548E-09	1.040E-03	4.166E-02
U-234	Pb-210	1.000E+00	0.000E+00	2.254E-25	6.306E-24	2.649E-22	1.035E-20	1.526E-18	1.122E-03	4.384E-02
U-234	ΣDSR(j)		4.014E-17	4.819E-14	4.437E-13	5.354E-12	6.100E-11	1.548E-09	8.820E-02	4.299E-01
U-235	U-235	1.000E+00	4.319E-10	4.408E-10	4.592E-10	5.297E-10	7.966E-10	3.324E-09	8.107E-02	6.452E-01
U-235	Pa-231	1.000E+00	0.000E+00	6.361E-14	1.972E-13	7.371E-13	3.068E-12	3.218E-11	6.894E-02	5.744E-01
U-235	Ac-227	1.000E+00	0.000E+00	8.998E-15	8.178E-14	9.426E-13	9.584E-12	1.243E-05	1.990E-02	1.877E-01
U-235	ΣDSR(j)		4.319E-10	4.409E-10	4.594E-10	5.313E-10	8.093E-10	1.243E-05	1.699E-01	1.407E+00
U-238	U-238	1.000E+00	7.280E-08	7.379E-08	7.580E-08	8.331E-08	1.091E-07	2.806E-07	8.168E-02	3.833E-01
U-238	U-234	1.000E+00	0.000E+00	1.171E-22	3.722E-22	1.518E-21	8.101E-21	2.028E-19	7.305E-05	9.705E-04
U-238	Th-230	1.000E+00	0.000E+00	5.407E-27	5.145E-26	6.947E-25	1.091E-23	8.519E-22	7.706E-08	3.528E-06
U-238	Ra-226	1.000E+00	0.000E+00	4.548E-20	1.258E-18	5.064E-17	1.734E-15	1.476E-13	3.026E-07	4.221E-05
U-238	Pb-210	1.000E+00	0.000E+00	1.741E-31	1.348E-29	1.907E-27	2.300E-25	1.219E-22	2.984E-07	4.302E-05
U-238	ΣDSR(j)		7.280E-08	7.379E-08	7.580E-08	8.331E-08	1.091E-07	2.806E-07	8.175E-02	3.843E-01

\*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 = 25 mrem/yr

Nuclide (i)	t= 0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	*3.430E+12	*3.430E+12	*3.430E+12	*3.430E+12	*3.430E+12	3.431E+02	8.596E+01	2.193E+02
Co-60	3.511E+05	3.964E+05	5.055E+05	1.183E+06	1.344E+07	6.644E+10	*1.131E+15	*1.131E+15
Cs-137	2.033E+07	2.087E+07	2.198E+07	2.635E+07	4.425E+07	2.715E+08	1.018E+07	*8.701E+13
H-3	*9.594E+15	9.365E+04	3.275E+04	3.733E+04	1.141E+05	*9.594E+15	*9.594E+15	*9.594E+15
Pu-238	*1.711E+13	*1.711E+13	*1.711E+13	*1.711E+13	*1.711E+13	*1.711E+13	6.462E+02	2.930E+04
U-234	*6.245E+09	*6.245E+09	*6.245E+09	*6.245E+09	*6.245E+09	*6.245E+09	2.835E+02	5.815E+01
U-235	*2.160E+06	*2.160E+06	*2.160E+06	*2.160E+06	*2.160E+06	2.011E+06	1.471E+02	1.776E+01
U-238	*3.360E+05	*3.360E+05	*3.360E+05	*3.360E+05	*3.360E+05	*3.360E+05	3.058E+02	6.505E+01

\*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 = 1.000E+03 years

Nuclide (i)	Initial pCi/g	tmin (years)	DSR(i,tmin)	G(i,tmin) (pCi/g)	DSR(i,tmax)	G(i,tmax) (pCi/g)
Am-241	4.000E-03	320.6 ± 0.6	2.918E-01	8.569E+01	1.140E-01	2.193E+02
Co-60	2.000E-03	0.000E+00	7.121E-05	3.511E+05	0.000E+00	*1.131E+15
Cs-137	4.000E-01	125.0 ± 0.3	3.457E-04	7.232E+04	1.416E-17	*8.701E+13
H-3	8.000E-01	4.677 ± 0.009	8.278E-04	3.020E+04	0.000E+00	*9.594E+15
Pu-238	4.000E-03	226.4 ± 0.5	4.377E-02	5.711E+02	8.532E-04	2.930E+04
U-234	4.000E-03	1.000E+03	4.299E-01	5.815E+01	4.299E-01	5.815E+01
U-235	4.000E-03	1.000E+03	1.407E+00	1.776E+01	1.407E+00	1.776E+01
U-238	4.000E-03	1.000E+03	3.843E-01	6.505E+01	3.843E-01	6.505E+01

\*At specific activity limit

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

Nuclide (j)	Parent (i)	BRF(i)	DOSE(j,t), mrem/yr								
			t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	Am-241	1.000E+00		3.571E-25	3.720E-25	4.038E-25	5.380E-25	1.221E-24	2.915E-04	1.161E-03	4.473E-04
Np-237	Am-241	1.000E+00		0.000E+00	7.808E-18	2.415E-17	8.962E-17	3.655E-16	2.094E-10	1.983E-06	8.742E-06
U-233	Am-241	1.000E+00		0.000E+00	1.898E-27	1.771E-26	2.235E-25	2.894E-24	7.174E-15	1.262E-11	1.833E-10
Th-229	Am-241	1.000E+00		0.000E+00	3.453E-27	9.605E-26	3.949E-24	1.437E-22	1.519E-20	7.165E-13	6.016E-11
Co-60	Co-60	1.000E+00		1.424E-07	1.261E-07	9.892E-08	4.225E-08	3.719E-09	7.525E-13	3.215E-21	0.000E+00
Cs-137	Cs-137	1.000E+00		4.918E-07	4.792E-07	4.550E-07	3.795E-07	2.260E-07	3.683E-08	9.822E-07	5.664E-18
H-3	H-3	1.000E+00		0.000E+00	2.136E-04	6.106E-04	5.358E-04	1.753E-04	5.028E-24	0.000E+00	0.000E+00
Pu-238	Pu-238	1.000E+00		1.835E-20	1.875E-20	1.957E-20	2.275E-20	3.496E-20	1.573E-19	1.546E-04	2.801E-06
U-234	Pu-238	1.000E+00		0.000E+00	4.667E-25	1.472E-24	5.845E-24	2.896E-23	5.676E-22	1.147E-07	5.083E-07
U-234	U-234	1.000E+00		1.605E-19	1.652E-19	1.750E-19	2.141E-19	3.810E-19	2.861E-18	3.434E-04	1.367E-03
U-234	U-238	1.000E+00		0.000E+00	4.684E-25	1.489E-24	6.071E-24	3.240E-23	8.113E-22	2.922E-07	3.882E-06
U-234	ΣDOSE(j):			1.605E-19	1.652E-19	1.750E-19	2.142E-19	3.810E-19	2.863E-18	3.438E-04	1.372E-03
Th-230	Pu-238	1.000E+00		0.000E+00	2.157E-29	2.042E-28	2.709E-27	4.051E-26	2.686E-24	1.644E-10	3.319E-09
Th-230	U-234	1.000E+00		0.000E+00	1.526E-23	4.840E-23	1.961E-22	1.028E-21	2.415E-20	7.350E-07	1.044E-05
Th-230	U-238	1.000E+00		0.000E+00	2.163E-29	2.058E-28	2.779E-27	4.365E-26	3.408E-24	3.083E-10	1.411E-08
Th-230	ΣDOSE(j):			0.000E+00	1.526E-23	4.840E-23	1.961E-22	1.028E-21	2.416E-20	7.355E-07	1.046E-05
Ra-226	Pu-238	1.000E+00		0.000E+00	1.817E-22	5.004E-21	1.988E-19	6.556E-18	4.925E-16	7.392E-10	4.909E-08
Ra-226	U-234	1.000E+00		0.000E+00	1.926E-16	1.775E-15	2.142E-14	2.440E-13	6.190E-12	4.161E-06	1.666E-04
Ra-226	U-238	1.000E+00		0.000E+00	1.819E-22	5.033E-21	2.026E-19	6.936E-18	5.903E-16	1.210E-09	1.688E-07
Ra-226	ΣDOSE(j):			0.000E+00	1.926E-16	1.775E-15	2.142E-14	2.440E-13	6.191E-12	4.163E-06	1.668E-04
Pb-210	Pu-238	1.000E+00		0.000E+00	0.000E+00	5.364E-32	7.514E-30	8.783E-28	4.168E-25	7.539E-10	5.125E-08
Pb-210	U-234	1.000E+00		0.000E+00	9.014E-28	2.522E-26	1.060E-24	4.138E-23	6.102E-21	4.488E-06	1.753E-04
Pb-210	U-238	1.000E+00		0.000E+00	0.000E+00	5.391E-32	7.630E-30	9.201E-28	4.878E-25	1.193E-09	1.721E-07
Pb-210	ΣDOSE(j):			0.000E+00	9.014E-28	2.522E-26	1.060E-24	4.138E-23	6.103E-21	4.490E-06	1.756E-04
U-235	U-235	1.000E+00		1.728E-12	1.763E-12	1.837E-12	2.119E-12	3.186E-12	1.330E-11	3.243E-04	2.581E-03
Pa-231	U-235	1.000E+00		0.000E+00	2.544E-16	7.887E-16	2.948E-15	1.227E-14	1.287E-13	2.758E-04	2.297E-03
Ac-227	U-235	1.000E+00		0.000E+00	3.599E-17	3.271E-16	3.771E-15	3.834E-14	4.970E-08	7.961E-05	7.510E-04
U-238	U-238	1.000E+00		2.912E-10	2.951E-10	3.032E-10	3.333E-10	4.365E-10	1.122E-09	3.267E-04	1.533E-03

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

Individual Nuclide Soil Concentration  
 Parent Nuclide and Branch Fraction Indicated

Nuclide (j)	Parent (i)	BRF(i)	S(j,t), pCi/g								
			t=	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	1.000E+03
Am-241	Am-241	1.000E+00		4.000E-03	3.976E-03	3.929E-03	3.768E-03	3.345E-03	2.203E-03	6.683E-04	1.028E-05
Np-237	Am-241	1.000E+00		0.000E+00	1.292E-09	3.850E-09	1.256E-08	3.540E-08	9.577E-08	1.695E-07	1.632E-07
U-233	Am-241	1.000E+00		0.000E+00	2.825E-15	2.529E-14	2.758E-13	2.354E-12	2.181E-11	1.210E-10	3.425E-10
Th-229	Am-241	1.000E+00		0.000E+00	8.899E-20	2.393E-18	8.738E-17	2.266E-15	7.312E-14	1.368E-12	1.784E-11
Co-60	Co-60	1.000E+00		2.000E-03	1.750E-03	1.341E-03	5.276E-04	3.672E-05	3.265E-09	8.701E-21	0.000E+00
Cs-137	Cs-137	1.000E+00		4.000E-01	3.843E-01	3.546E-01	2.677E-01	1.199E-01	7.204E-03	2.336E-06	1.435E-18
H-3	H-3	1.000E+00		8.000E-01	4.190E-01	1.150E-01	1.243E-03	3.004E-09	6.584E-29	0.000E+00	0.000E+00
Pu-238	Pu-238	1.000E+00		4.000E-03	3.968E-03	3.906E-03	3.696E-03	3.154E-03	1.812E-03	3.720E-04	1.457E-06
U-234	Pu-238	1.000E+00		0.000E+00	1.129E-08	3.360E-08	1.089E-07	3.014E-07	7.704E-07	1.223E-06	1.107E-06
U-234	U-234	1.000E+00		4.000E-03	3.999E-03	3.996E-03	3.988E-03	3.965E-03	3.884E-03	3.661E-03	2.976E-03
U-234	U-238	1.000E+00		0.000E+00	1.134E-08	3.399E-08	1.131E-07	3.372E-07	1.101E-06	3.115E-06	8.450E-06
U-234	ΣS(j):			4.000E-03	3.999E-03	3.997E-03	3.988E-03	3.965E-03	3.885E-03	3.665E-03	2.986E-03
Th-230	Pu-238	1.000E+00		0.000E+00	5.090E-14	4.556E-13	4.967E-12	4.237E-11	3.944E-10	2.308E-09	9.856E-09
Th-230	U-234	1.000E+00		0.000E+00	3.600E-08	1.080E-07	3.595E-07	1.075E-06	3.546E-06	1.032E-05	3.100E-05
Th-230	U-238	1.000E+00		0.000E+00	5.103E-14	4.591E-13	5.094E-12	4.566E-11	5.003E-10	4.328E-09	4.190E-08
Th-230	ΣS(j):			0.000E+00	3.600E-08	1.080E-07	3.595E-07	1.075E-06	3.547E-06	1.033E-05	3.106E-05
Ra-226	Pu-238	1.000E+00		0.000E+00	7.352E-18	1.975E-16	7.191E-15	1.849E-13	5.810E-12	1.028E-10	1.259E-09
Ra-226	U-234	1.000E+00		0.000E+00	7.794E-12	7.006E-11	7.748E-10	6.882E-09	7.303E-08	5.786E-07	4.275E-06
Ra-226	U-238	1.000E+00		0.000E+00	7.362E-18	1.987E-16	7.329E-15	1.956E-13	6.964E-12	1.683E-10	4.332E-09
Ra-226	ΣS(j):			0.000E+00	7.794E-12	7.006E-11	7.748E-10	6.882E-09	7.305E-08	5.789E-07	4.280E-06
Pb-210	Pu-238	1.000E+00		0.000E+00	5.680E-20	4.525E-18	5.274E-16	3.647E-14	2.755E-12	7.807E-11	1.160E-09
Pb-210	U-234	1.000E+00		0.000E+00	8.013E-14	2.127E-12	7.437E-11	1.718E-09	4.034E-08	4.649E-07	3.969E-06
Pb-210	U-238	1.000E+00		0.000E+00	6.190E-20	4.547E-18	5.355E-16	3.820E-14	3.225E-12	1.236E-10	3.896E-09
Pb-210	ΣS(j):			0.000E+00	8.013E-14	2.127E-12	7.437E-11	1.718E-09	4.034E-08	4.651E-07	3.974E-06
U-235	U-235	1.000E+00		4.000E-03	3.999E-03	3.996E-03	3.988E-03	3.965E-03	3.885E-03	3.664E-03	2.985E-03
Pa-231	U-235	1.000E+00		0.000E+00	8.455E-08	2.531E-07	8.376E-07	2.462E-06	7.640E-06	1.878E-05	3.295E-05
Ac-227	U-235	1.000E+00		0.000E+00	1.330E-09	1.167E-08	1.190E-07	8.517E-07	5.007E-06	1.537E-05	2.885E-05
U-238	U-238	1.000E+00		4.000E-03	3.999E-03	3.996E-03	3.988E-03	3.965E-03	3.885E-03	3.664E-03	2.985E-03

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