

Attachment 2
Resrad Build Output Report
For Residual Contamination in Room R3

** RESRAD-BUILD Program Output, Version 3.0 02/28/01 09:42 Page: 0- 1 : 2 **
Title : WRAIR Building 40 Rm. R3 Concrete
Input File : C:\WINBLD\WRCCR3.INP

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iii           RESRAD-BUILD Input Parameters           iii
iii           iii
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```

      Number of Sources   : 1
      Number of Receptors: 1
      Total Time          : 3.650000E+02 days
      Fraction Inside     : 5.000000E-01

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iiiiiiiiiii Receptor Information iiiiiiiiiii

Receptor	Room	x [m]	y [m]	z [m]	FracTime	Inhalation [m3/day]	Ingestion (Dust) [m2/hr]
1	1	1.000	1.000	1.000	1.000	1.80E+01	1.00E-04

iii Receptor-Source Shielding Relationship iii

Receptor	Source	Density [g/cm3]	Thickness [cm]	Material
1	1	2.40E+00	0.00E+00	Concrete

** RESRAD-BUILD Program Output, Version 3.0 02/28/01 09:42 Page: 0- 2 : 3 **
Title : WRAIR Building 40 Rm. R3 Concrete
Input File : C:\WINBLD\WRCCR3.INP

íííííííííí Building Information íííííííííí

Building Air Exchange Rate: 8.00E-01 1/hr

Height[m]	Area [m2]	Air Exchanges [m3/hr]

		* * *
		* * *
		* * *
H1: 2.500		* Room 1 <=Q01: 6.00E+00
		* Q10 : 6.00E+00
Area 3.000		* LAMBDA: 8.00E-01
		* * *

Deposition velocity: 1.00E-02 [m/s] Resuspension Rate: 5.00E-07 [1/s]

** RESRAD-BUILD Program Output, Version 3.0 02/28/01 09:42 Page: 0- 3 : 4 **
 Title : WRAIR Building 40 Rm. R3 Concrete
 Input File : C:\WINBLD\WRCCR3.INP

iiiiiiii Source Information iiiiiiiii

Source: 1

Location:: Room : 1 x: 1.00 y: 1.00 z: 0.00[m]
 Geometry:: Type: Volume Area:5.00E-01 [m2] Direction: z
 Pathway ::
 Direct Ingestion Rate: 0.000E+00 [gm/hr]
 Fraction released to air: 1.000E-01

Containment :: Number of Regions: 1 Contaminated Region: 1
 Region : 1
 Thickness [cm] :3.05E+01
 Density [g/cm3] :2.40E+00
 Material :Concrete
 Erosion Rate [cm/day] :2.40E-08

Contamination::

Nuclide Concentration	Dose Conversion Factors					
		Ingestion	Inhalation	External (Surface)	External (Volume)	Submersion
[pCi/g]	[mrem/pCi]	[mrem/pCi]	[mrem/yr/ (pCi/m2)]	[mrem/yr/ (pCi/m3)]	[mrem/yr/ (pCi/m3)]	
CS-137	2.000E+01	5.000E-05	3.190E-05	6.490E-05	2.140E-06	3.190E-03
SR-90	5.200E+00	1.530E-04	1.310E-03	6.560E-07	1.540E-08	2.310E-05

** RESRAD-BUILD Program Output, Version 3.0 02/28/01 09:42 Page: 1- 4 : 8 **
Title : WRAIR Building 40 Rm. R3 Concrete
Input File : C:\WINBLD\WRCCR3.INPEvaluation Time: 0.000000 years

Nuclide Detail of Doses
iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
[mrem]

Source: 1

Nuclide	Receptor	Total
	1	
CS-137		
CS-137	2.01E+00	2.01E+00
SR-90		
SR-90	4.71E-03	4.71E-03

** RESRAD-BUILD Program Output, Version 3.0 02/28/01 09:42 Page: 2- 1 : 9 **
 Title : WRAIR Building 40 Rm. R3 Concrete
 Input File : C:\WINBLD\WRCCR3.INPEvaluation Time: 1.00000 years

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iii    Assessment for Time: 2    iii
iii    Time =1.00E+00 yr    iii
iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
    
```

iiiiiiii Source Information iiiiii

Source: 1
 Location:: Room : 1 x: 1.00 y: 1.00 z: 0.00 [m]
 Geometry:: Type: Volume Area:5.00E-01 [m2] Direction: z
 Pathway ::
 Direct Ingestion Rate :0.000E+00 [gm/hr]
 Fraction released to air: 1.000E-01

Containment :: Number of Regions: 1 Contaminated Region: 1
 Region : 1
 Thickness [cm] :3.05E+01
 Fraction Contaminated :1.00E+00
 Density [g/cm3] :2.40E+00

Contamination::	Nuclide	Concentration [pCi/g]
	CS-137	1.932E+01
	SR-90	5.018E+00

** RESRAD-BUILD Program Output, Version 3.0 02/28/01 09:42 Page: 2- 4 : 12 **
Title : WRAIR Building 40 Rm. R3 Concrete
Input File : C:\WINBLD\WRCCR3.INPEvaluation Time: 1.00000 years

Nuclide Detail of Doses
iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
[mrem]

Source: 1

Nuclide	Receptor	Total
	1	
CS-137		
CS-137	1.97E+00	1.97E+00
SR-90		
SR-90	4.60E-03	4.60E-03

** RESRAD-BUILD Program Output, Version 3.0 02/28/01 09:42 Page: 3- 4 : 16 **
Title : WRAIR Building 40 Rm. R3 Concrete
Input File : C:\WINBLD\WRCCR3.INPEvaluation Time: 10.0000 years

Nuclide Detail of Doses
iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
[mrem]

Source: 1

Nuclide	Receptor 1	Total
CS-137		
CS-137	1.60E+00	1.60E+00
SR-90		
SR-90	3.71E-03	3.71E-03

** RESRAD-BUILD Program Output, Version 3.0 02/28/01 09:42 Page: 4- 2 : 18 **
 Title : WRAIR Building 40 Rm. R3 Concrete
 Input File : C:\WINBLD\WRCCR3.INPEvaluation Time: 100.000 years

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iii                                     iii
iii          RESRAD-BUILD Dose Tables          iii
iii                                     iii
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```

Source Contributions to Receptor Doses
 ii
 [mrem]

		Source	Total
		1	
Receptor	1	2.0E-01	2.0E-01
Total		2.0E-01	2.0E-01

** RESRAD-BUILD Program Output, Version 3.0 02/28/01 09:42 Page: 4- 4 : 20 **
Title : WRAIR Building 40 Rm. R3 Concrete
Input File : C:\WINBLD\WRCCR3.INPEvaluation Time: 100.000 years

Nuclide Detail of Doses
iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
[mrem]

Source: 1

Nuclide	Receptor	Total
	1	
CS-137		
CS-137	2.00E-01	2.00E-01
SR-90		
SR-90	4.36E-04	4.36E-04

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Title : WRAIR Building 40 Rm. R3 Concrete
Input File : C:\WINBLD\WRCCR3.INPEvaluation Time: 1000.00 years

Pathway Detail of Doses
iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
[mrem]

Source: 1	External	Deposition	Immersion	Inhalation	Radon	Ingestion
Receptor 1	1.86E-10	1.39E-17	5.69E-19	2.35E-16	0.00E+00	2.17E-16
Total	1.86E-10	1.39E-17	5.69E-19	2.35E-16	0.00E+00	2.17E-16

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Title : WRAIR Building 40 Rm. R3 Concrete
Input File : C:\WINBLD\WRCCR3.INPEvaluation Time: 10000.0 years

Nuclide Detail of Doses
iiiiiiiiiiiiiiiiiiiiiiiiiiiiii
[mrem]

Source: 1

Nuclide Receptor	Total
1	

** RESRAD-BUILD Program Output, Version 3.0 02/28/01 09:42 Page: 7- 2 : 30 **
Title : WRAIR Building 40 Rm. R3 Concrete
Input File : C:\WINBLD\WRCCR3.INPEvaluation Time: 100000. years

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iii                                     iii
iii     RESRAD-BUILD Dose Tables     iii
iii                                     iii
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iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
```

Source Contributions to Receptor Doses
ii
[mrem]

	Source	Total
	1	
Receptor 1	0.0E+00	0.0E+00
Total	0.0E+00	0.0E+00

** RESRAD-BUILD Program Output, Version 3.0 02/28/01 09:42 Page: 7- 4 : 32 **
Title : WRAIR Building 40 Rm. R3 Concrete
Input File : C:\WINBLD\WRCCR3.INPEvaluation Time: 100000. years

Nuclide Detail of Doses
iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii
[mrem]

Source: 1

Nuclide Receptor	Total
1	

