Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld

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=== ===
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=== ===
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Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld

```
==================================================
==================================================
===                                          ===
===     RESRAD-BUILD Input Parameters        ===
===                                          ===
==================================================
==================================================
```

Number of Sources : 10
Number of Receptors: 1
Total Time : 7.300000E+03 days
Fraction Inside : 9.600000E-01

========== Receptor Information ==========

Receptor	Room	x [m]	y [m]	z [m]	FracTime	Inhalation [m3/day]	Ingestion(Dust) [m2/hr]
1	1	1.500	1.500	1.000	1.000	2.00E+01	1.00E-04

=== Receptor-Source Shielding Relationship ===

Receptor	Source	Density [g/cm3]	Thickness [cm]	Material
1	1	2.40E+00	0.00E+00	Concrete
1	2	2.40E+00	0.00E+00	Concrete
1	3	2.40E+00	0.00E+00	Concrete
1	4	2.40E+00	0.00E+00	Concrete
1	5	2.40E+00	0.00E+00	Concrete
1	6	2.40E+00	0.00E+00	Concrete
1	7	2.40E+00	0.00E+00	Concrete
1	8	2.40E+00	0.00E+00	Concrete
1	9	2.40E+00	0.00E+00	Concrete
1	10	2.40E+00	0.00E+00	Concrete

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld

======== Building Information ========

Building Air Exchange Rate: 4.50E-01 1/hr

```
Height[m]       Air Exchanges [m3/hr]
Area [m2]
          ******************************
          *                            *
          *                            *
          *                            <=Q01: 1.28E+01
H1:  3.050    *        Room  1        *    Q10 :  1.28E+01
          *  LAMBDA: 4.50E-01        *
Area  9.300    *                            *
          *                            *
          ******************************
```

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

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld

======== Source Information ========

Source: 1
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00[m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 2.000E-01
Time to Remove: 9.490E+03 [day]

Contamination::

Nuclide	Concentration [dpm/m2]	Slope Factor Ingestion [Risk/dpm]	Slope Factor Inhalation [Risk/dpm]
AM-241	9.990E+03	9.775E-11	1.266E-08
NP-237	0.000E+00	7.293E-11	7.979E-09
U-233	0.000E+00	7.207E-11	5.225E-09
TH-229	0.000E+00	5.802E-10	1.012E-07

Source: 2
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00[m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 2.000E-01
Time to Remove: 9.490E+03 [day]

Contamination::

Nuclide	Concentration [dpm/m2]	Slope Factor Ingestion [Risk/dpm]	Slope Factor Inhalation [Risk/dpm]
CO-60	5.000E+05	1.815E-11	1.613E-11

Source: 3

Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00[m]

Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z

Pathway ::

Direct Ingestion Rate: 0.000E+00 [1/hr]

Fraction released to air: 1.000E-01

Removable fraction: 2.000E-01

Time to Remove: 9.490E+03 [day]

Contamination::

Nuclide	Concentration [dpm/m2]	Slope Factor Ingestion [Risk/dpm]	Slope Factor Inhalation [Risk/dpm]
CS-137	5.000E+05	1.950E-11	5.360E-12

Source: 4

Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00[m]

Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z

Pathway ::

Direct Ingestion Rate: 0.000E+00 [1/hr]

Fraction released to air: 1.000E-01

Removable fraction: 2.000E-01

Time to Remove: 9.490E+03 [day]

Contamination::

Nuclide	Concentration [dpm/m2]	Slope Factor Ingestion [Risk/dpm]	Slope Factor Inhalation [Risk/dpm]
GD-152	0.000E+00	2.833E-11	4.099E-09
EU-152	5.000E+05	7.297E-12	4.099E-11

Source: 5

Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00[m]

Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z

Pathway ::

Direct Ingestion Rate: 0.000E+00 [1/hr]

Fraction released to air: 1.000E-01

Removable fraction: 2.000E-01

Time to Remove: 9.490E+03 [day]

Contamination::

Nuclide	Concentration [dpm/m2]	Slope Factor Ingestion [Risk/dpm]	Slope Factor Inhalation [Risk/dpm]
EU-154	5.000E+05	1.284E-11	5.180E-11

Source: 6

Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00[m]

Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z

Pathway ::

Direct Ingestion Rate: 0.000E+00 [1/hr]

Fraction released to air: 1.000E-01

Removable fraction: 2.000E-01

Time to Remove: 9.490E+03 [day]

Contamination::

Nuclide	Concentration [dpm/m2]	Slope Factor Ingestion [Risk/dpm]	Slope Factor Inhalation [Risk/dpm]
H-3	5.000E+05	9.910E-14	8.964E-14

Source: 7

Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00[m]

Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z

Pathway ::

Direct Ingestion Rate: 0.000E+00 [1/hr]

Fraction released to air: 1.000E-01

Removable fraction: 2.000E-01

Time to Remove: 9.490E+03 [day]

Contamination::

Nuclide	Concentration [dpm/m2]	Slope Factor Ingestion [Risk/dpm]	Slope Factor Inhalation [Risk/dpm]
PU-239	9.990E+03	1.243E-10	1.500E-08
U-235	0.000E+00	7.359E-11	4.550E-09
PA-231	0.000E+00	1.685E-10	2.050E-08
AC-227	0.000E+00	5.232E-10	9.399E-08

Source: 8

Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00[m]

Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z

Pathway ::

Direct Ingestion Rate: 0.000E+00 [1/hr]

Fraction released to air: 1.000E-01

Removable fraction: 2.000E-01

Time to Remove: 9.490E+03 [day]

Radon Release Fraction: 4.000E-01

Contamination::

Nuclide	Concentration [dpm/m2]	Slope Factor Ingestion [Risk/dpm]	Slope Factor Inhalation [Risk/dpm]
PO-210	9.990E+03	3.586E-10	4.865E-09
RA-226	9.990E+03	3.290E-10	5.210E-09
PB-210	9.990E+03	8.403E-10	1.391E-09

Source: 9

Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00[m]

Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z

Pathway ::

Direct Ingestion Rate: 0.000E+00 [1/hr]

Fraction released to air: 1.000E-01

Removable fraction: 2.000E-01

Time to Remove: 9.490E+03 [day]

Contamination::

Nuclide	Concentration [dpm/m2]	Slope Factor Ingestion [Risk/dpm]	Slope Factor Inhalation [Risk/dpm]
SR-90	9.990E+04	6.500E-11	5.108E-11

Source: 10

Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00[m]

Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z

Pathway ::

Direct Ingestion Rate: 0.000E+00 [1/hr]

Fraction released to air: 1.000E-01

Removable fraction: 2.000E-01

Time to Remove: 9.490E+03 [day]

Radon Release Fraction: 2.000E-02

Contamination::

Nuclide	Concentration [dpm/m2]	Slope Factor Ingestion [Risk/dpm]	Slope Factor Inhalation [Risk/dpm]
TH-232	3.640E+03	1.041E-10	1.950E-08
TH-228	3.640E+03	3.643E-10	6.425E-08
RA-228	3.640E+03	1.030E-09	2.355E-09

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 0.00000000E+00 years

```
==================================================
==================================================
===     Assessment for Time:  1          ===
===          Time =0.00E+00 yr          ===
==================================================
==================================================
```

======== Source Information ========

Source: 1
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 2.000E-01
Time to Remove: 9.490E+03 [day]

Contamination::	Nuclide	Concentration [dpm/m2]
	AM-241	9.990E+03
	NP-237	0.000E+00
	U-233	0.000E+00
	TH-229	0.000E+00

Source: 2
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 2.000E-01
Time to Remove: 9.490E+03 [day]

Contamination::	Nuclide	Concentration [dpm/m2]
	CO-60	5.000E+05

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 0.00000000E+00 years

Source: 3
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 2.000E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
CS-137 5.000E+05

Source: 4
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 2.000E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
GD-152 0.000E+00
EU-152 5.000E+05

Source: 5
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 2.000E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
EU-154 5.000E+05

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 0.00000000E+00 years

Source: 6
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 2.000E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
H-3 5.000E+05

Source: 7
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 2.000E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
PU-239 9.990E+03
U-235 0.000E+00
PA-231 0.000E+00
AC-227 0.000E+00

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 0.00000000E+00 years

Source: 8
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 2.000E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
PO-210 9.990E+03
RA-226 9.990E+03
PB-210 9.990E+03

Source: 9
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 2.000E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
SR-90 9.990E+04

Source: 10
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 2.000E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]

TH-232	3.640E+03
TH-228	3.640E+03
RA-228	3.640E+03

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 0.00000000E+00 years

```
==============================================
==============================================
===                                      ===
===      RESRAD-BUILD Risk Tables        ===
===                                      ===
==============================================
==============================================
```

Source Contributions to Receptor Risks
==========
[Risk]

	Source 1	Source 2	Source 3	Source 4	Source 5	Source 6	Source 7	Source 8	Source 9	Source 10	Total
Receptor 1	1.17E-06	3.93E-05	2.03E-05	3.23E-05	2.84E-05	9.18E-10	1.37E-06	6.40E-06	1.85E-07	3.32E-06	1.33E-04
Total	1.17E-06	3.93E-05	2.03E-05	3.23E-05	2.84E-05	9.18E-10	1.37E-06	6.40E-06	1.85E-07	3.32E-06	1.33E-04

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 0.00000000E+00 years

Pathway Detail of Risks
==========
[Risk]

Source: 1

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	3.12E-08	4.31E-11	3.28E-13	1.11E-06	0.00E+00	2.06E-08
Total	3.12E-08	4.31E-11	3.28E-13	1.11E-06	0.00E+00	2.06E-08

Source: 2

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	3.92E-05	4.29E-08	9.05E-10	2.10E-08	0.00E+00	5.62E-08
Total	3.92E-05	4.29E-08	9.05E-10	2.10E-08	0.00E+00	5.62E-08

Source: 3

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	2.01E-05	2.66E-08	5.07E-10	1.85E-08	0.00E+00	1.62E-07
Total	2.01E-05	2.66E-08	5.07E-10	1.85E-08	0.00E+00	1.62E-07

Source: 4

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	3.21E-05	4.02E-08	7.91E-10	1.05E-07	0.00E+00	4.48E-08
Total	3.21E-05	4.02E-08	7.91E-10	1.05E-07	0.00E+00	4.48E-08

Source: 5

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	2.82E-05	3.37E-08	6.72E-10	1.04E-07	0.00E+00	6.13E-08
Total	2.82E-05	3.37E-08	6.72E-10	1.04E-07	0.00E+00	6.13E-08

Source: 6

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	0.00E+00	0.00E+00	0.00E+00	3.32E-10	0.00E+00	5.86E-10
Total	0.00E+00	0.00E+00	0.00E+00	3.32E-10	0.00E+00	5.86E-10

Source: 7

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	1.37E-09	1.90E-12	1.86E-15	1.34E-06	0.00E+00	2.67E-08
Total	1.37E-09	1.90E-12	1.86E-15	1.34E-06	0.00E+00	2.67E-08

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 0.00000000E+00 years

Source: 8

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	1.54E-06	2.10E-09	4.33E-11	5.86E-07	4.03E-06	2.42E-07
Total	1.54E-06	2.10E-09	4.33E-11	5.86E-07	4.03E-06	2.42E-07

Source: 9

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	4.33E-08	5.72E-11	7.78E-13	3.50E-08	0.00E+00	1.07E-07
Total	4.33E-08	5.72E-11	7.78E-13	3.50E-08	0.00E+00	1.07E-07

Source: 10

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	7.73E-07	7.51E-10	1.62E-11	2.02E-06	4.35E-07	9.25E-08
Total	7.73E-07	7.51E-10	1.62E-11	2.02E-06	4.35E-07	9.25E-08

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 0.00000000E+00 years

Nuclide Detail of Risks
==========
[Risk]

Source: 1

Nuclide	Receptor 1	Total
AM-241	1.17E-06	1.17E-06
NP-237	2.99E-12	2.99E-12
U-233	4.52E-17	4.52E-17
TH-229	4.18E-19	4.18E-19

Source: 2

Nuclide	Receptor 1	Total
CO-60	3.93E-05	3.93E-05

Source: 3

Nuclide	Receptor 1	Total
CS-137	2.03E-05	2.03E-05

Source: 4

Nuclide	Receptor 1	Total
GD-152	8.72E-19	8.72E-19
EU-152	3.23E-05	3.23E-05

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 0.00000000E+00 years

Source: 5

Nuclide	Receptor 1	Total
EU-154	2.84E-05	2.84E-05

Source: 6

Nuclide	Receptor 1	Total
H-3	9.18E-10	9.18E-10

Source: 7

Nuclide	Receptor 1	Total
PU-239	1.37E-06	1.37E-06
U-235	5.63E-15	5.63E-15
PA-231	2.65E-18	2.65E-18
AC-227	1.64E-18	1.64E-18

Source: 8

Nuclide	Receptor 1	Total
PO-210	3.04E-08	3.04E-08
RA-226	6.08E-06	6.08E-06
PB-210	7.33E-08	7.33E-08
PB-210	2.22E-07	2.22E-07

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 0.00000000E+00 years

Source: 9

Nuclide	Receptor 1	Total
SR-90	1.85E-07	1.85E-07

Source: 10

Nuclide	Receptor 1	Total
TH-232	6.45E-07	6.45E-07
TH-228	1.09E-06	1.09E-06
RA-228	2.71E-07	2.71E-07
TH-228	3.26E-07	3.26E-07
TH-228	8.13E-07	8.13E-07
RA-228	1.73E-07	1.73E-07

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 6.00000000 years

==========
==========
=== Assessment for Time: 2 ===
=== Time =6.00E+00 yr ===
==========
==========

======== Source Information ========

Source: 1
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 1.613E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
AM-241 9.437E+03
NP-237 1.843E-02
U-233 2.414E-07
TH-229 4.562E-11

Source: 2
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 1.613E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
CO-60 2.166E+05

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 6.00000000 years

Source: 3
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 1.613E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
CS-137 4.152E+05

Source: 4
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 1.613E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
GD-152 1.577E-08
EU-152 3.488E+05

Source: 5
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 1.613E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
EU-154 2.973E+05

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 6.00000000 years

Source: 6
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 1.613E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
H-3 3.410E+05

Source: 7
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 1.613E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
PU-239 9.527E+03
U-235 5.629E-05
PA-231 3.568E-09
AC-227 2.165E-10

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 6.00000000 years

Source: 8
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 1.613E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
PO-210 1.634E-01
RA-226 9.504E+03
PB-210 9.526E+03

Source: 9
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 1.613E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]
SR-90 8.260E+04

Source: 10
Location:: Room : 1 x: 1.50 y: 1.50 z: 0.00 [m]
Geometry:: Type: Area Length[m]:3.05E+00 Width[m]:3.05E+00 Direction: z
Pathway ::
Direct Ingestion Rate: 0.000E+00 [1/hr]
Fraction released to air: 1.000E-01
Removable fraction: 1.613E-01
Time to Remove: 9.490E+03 [day]

Contamination:: Nuclide Concentration
[dpm/m2]

TH-232	3.472E+03
TH-228	3.472E+03
RA-228	3.472E+03

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 6.00000000 years

```
==============================================
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===                                      ===
===      RESRAD-BUILD Risk Tables        ===
===                                      ===
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```

Source Contributions to Receptor Risks
==========
[Risk]

	Source 1	Source 2	Source 3	Source 4	Source 5	Source 6	Source 7	Source 8	Source 9	Source 10	Total
Receptor 1	1.13E-06	1.70E-05	1.68E-05	2.24E-05	1.68E-05	6.49E-10	1.34E-06	6.06E-06	1.57E-07	3.22E-06	8.50E-05
Total	1.13E-06	1.70E-05	1.68E-05	2.24E-05	1.68E-05	6.49E-10	1.34E-06	6.06E-06	1.57E-07	3.22E-06	8.50E-05

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 6.00000000 years

Pathway Detail of Risks
==========
[Risk]

Source: 1

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	2.93E-08	4.18E-11	3.18E-13	1.08E-06	0.00E+00	2.00E-08
Total	2.93E-08	4.18E-11	3.18E-13	1.08E-06	0.00E+00	2.00E-08

Source: 2

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	1.69E-05	1.94E-08	4.09E-10	9.49E-09	0.00E+00	2.54E-08
Total	1.69E-05	1.94E-08	4.09E-10	9.49E-09	0.00E+00	2.54E-08

Source: 3

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	1.66E-05	2.28E-08	4.34E-10	1.59E-08	0.00E+00	1.38E-07
Total	1.66E-05	2.28E-08	4.34E-10	1.59E-08	0.00E+00	1.38E-07

Source: 4

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	2.23E-05	2.91E-08	5.71E-10	7.60E-08	0.00E+00	3.24E-08
Total	2.23E-05	2.91E-08	5.71E-10	7.60E-08	0.00E+00	3.24E-08

Source: 5

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	1.67E-05	2.08E-08	4.15E-10	6.40E-08	0.00E+00	3.79E-08
Total	1.67E-05	2.08E-08	4.15E-10	6.40E-08	0.00E+00	3.79E-08

Source: 6

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	0.00E+00	0.00E+00	0.00E+00	2.35E-10	0.00E+00	4.14E-10
Total	0.00E+00	0.00E+00	0.00E+00	2.35E-10	0.00E+00	4.14E-10

Source: 7

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	1.30E-09	1.86E-12	1.82E-15	1.32E-06	0.00E+00	2.62E-08
Total	1.30E-09	1.86E-12	1.82E-15	1.32E-06	0.00E+00	2.62E-08

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 6.00000000 years

Source: 8

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	1.43E-06	2.05E-09	4.23E-11	5.69E-07	3.82E-06	2.36E-07
Total	1.43E-06	2.05E-09	4.23E-11	5.69E-07	3.82E-06	2.36E-07

Source: 9

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	3.56E-08	4.88E-11	6.63E-13	2.99E-08	0.00E+00	9.11E-08
Total	3.56E-08	4.88E-11	6.63E-13	2.99E-08	0.00E+00	9.11E-08

Source: 10

Receptor	External	Deposition	Immersion	Inhalation	Radon	Ingestion
1	7.35E-07	7.36E-10	1.58E-11	1.98E-06	4.13E-07	9.06E-08
Total	7.35E-07	7.36E-10	1.58E-11	1.98E-06	4.13E-07	9.06E-08

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 6.00000000 years

Nuclide Detail of Risks
==========
[Risk]

Source: 1

Nuclide	Receptor 1	Total
AM-241	1.13E-06	1.13E-06
NP-237	4.61E-12	4.61E-12
U-233	9.32E-17	9.32E-17
TH-229	1.11E-18	1.11E-18

Source: 2

Nuclide	Receptor 1	Total
CO-60	1.70E-05	1.70E-05

Source: 3

Nuclide	Receptor 1	Total
CS-137	1.68E-05	1.68E-05

Source: 4

Nuclide	Receptor 1	Total
GD-152	1.22E-18	1.22E-18
EU-152	2.24E-05	2.24E-05

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 6.00000000 years

Source: 5

Nuclide	Receptor 1	Total
EU-154	1.68E-05	1.68E-05

Source: 6

Nuclide	Receptor 1	Total
H-3	6.49E-10	6.49E-10

Source: 7

Nuclide	Receptor 1	Total
PU-239	1.34E-06	1.34E-06
U-235	8.68E-15	8.68E-15
PA-231	5.48E-18	5.48E-18
AC-227	4.24E-18	4.24E-18

Source: 8

Nuclide	Receptor 1	Total
PO-210	5.01E-13	5.01E-13
RA-226	5.77E-06	5.77E-06
PB-210	1.08E-07	1.08E-07
PB-210	1.80E-07	1.80E-07

Title : HPNS RESRAD-BUILD Adult Resident Risk
Input File : C:\Users\Craig\Desktop\HPNS BUILD Adult Am to Pu_25Sep19_9pt3m2_risk.bld
Evaluation Time: 6.00000000 years

Source: 9

Nuclide	Receptor 1	Total
SR-90	1.57E-07	1.57E-07

Source: 10

Nuclide	Receptor 1	Total
TH-232	6.32E-07	6.32E-07
TH-228	1.57E-06	1.57E-06
RA-228	3.45E-07	3.45E-07
TH-228	3.59E-08	3.59E-08
TH-228	5.58E-07	5.58E-07
RA-228	8.04E-08	8.04E-08