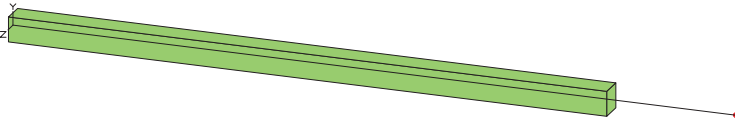


Case Title: Hematite
Description: Ind. Occ., Infinite Slab Unshielded Backfill - Th-232+C
Geometry: 16 - Infinite Slab

Source Dimensions
Thick 480.0 cm 15 ft 9.0 in

Dose Points

	<u>X</u>	<u>Y</u>	<u>Z</u>
# 1	580 cm 19 ft 0.3 in	0 cm 0.0 in	0 cm 0.0 in



Shields

<u>Shield Name</u>	<u>Dimension</u>	<u>Material</u>	<u>Density</u>
Source	Infinite	Concrete	1.6
Air Gap		Air	0.00122

Source Input
Grouping Method : Standard Indices
Number of Groups : 25
Lower Energy Cutoff : 0.015
Photons < 0.015 : Included
Library : Grove

<u>Nuclide</u>	<u>μCi/cm³</u>	<u>Bq/cm³</u>
Ac-228	9.7312e-001	3.6005e+004
Bi-212	9.5964e-001	3.5507e+004
Pb-212	9.5964e-001	3.5507e+004
Po-212	6.1484e-001	2.2749e+004
Po-216	9.5965e-001	3.5507e+004
Ra-224	9.5965e-001	3.5507e+004
Ra-228	9.7312e-001	3.6005e+004
Rn-220	9.5965e-001	3.5507e+004
Th-228	9.5972e-001	3.5510e+004
Th-232	1.0000e+000	3.7000e+004
Tl-208	3.4480e-001	1.2758e+004

Buildup
The material reference is : Source

Results

<u>Energy</u> <u>MeV</u>	<u>Activity</u> <u>photons/sec</u>	<u>Fluence Rate</u>		<u>Exposure Rate</u>	
		<u>MeV/cm²/sec</u> <u>No Buildup</u>	<u>MeV/cm²/sec</u> <u>With Buildup</u>	<u>mR/hr</u> <u>No Buildup</u>	<u>mR/hr</u> <u>With Buildup</u>
0.015	2.933e+04	1.008e+01	1.024e+01	8.642e-01	8.780e-01
0.04	3.631e+02	7.084e+00	1.015e+01	3.133e-02	4.487e-02
0.06	2.508e+02	1.553e+01	3.328e+01	3.085e-02	6.610e-02
0.08	1.533e+04	1.751e+03	4.537e+03	2.771e+00	7.180e+00
0.1	2.551e+03	4.303e+02	1.400e+03	6.583e-01	2.143e+00
0.15	1.513e+03	4.698e+02	1.914e+03	7.736e-01	3.151e+00
0.2	1.931e+04	8.995e+03	3.802e+04	1.588e+01	6.711e+01
0.3	9.354e+03	7.674e+03	3.131e+04	1.456e+01	5.940e+01
0.4	8.514e+02	1.049e+03	3.953e+03	2.043e+00	7.703e+00
0.5	4.953e+03	8.400e+03	2.937e+04	1.649e+01	5.766e+01
0.6	1.130e+04	2.495e+04	8.119e+04	4.870e+01	1.585e+02
0.8	1.137e+04	3.834e+04	1.093e+05	7.293e+01	2.079e+02
1.0	2.096e+04	9.864e+04	2.554e+05	1.818e+02	4.708e+02

Page : 2
DOS File : Th-232c Unshielded.ms6
Run Date: February 21, 2008
Run Time: 2:45:53 PM
Duration : 00:00:00

<u>Energy</u> <u>MeV</u>	<u>Activity</u> <u>photons/sec</u>	<u>Fluence Rate</u> <u>MeV/cm²/sec</u> <u>No Buildup</u>	<u>Fluence Rate</u> <u>MeV/cm²/sec</u> <u>With Buildup</u>	<u>Exposure Rate</u> <u>mR/hr</u> <u>No Buildup</u>	<u>Exposure Rate</u> <u>mR/hr</u> <u>With Buildup</u>
1.5	4.812e+03	4.198e+04	9.061e+04	7.064e+01	1.524e+02
2.0	1.083e+02	1.467e+03	2.882e+03	2.269e+00	4.456e+00
3.0	1.273e+04	3.190e+05	5.592e+05	4.328e+02	7.587e+02
TOTALS:	1.451e+05	5.532e+05	1.209e+06	8.633e+02	1.958e+03