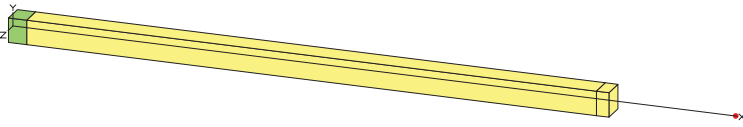


Case Title: Hematite
Description: Ind. Occ., Infinite Slab Shielded Deep Surf - Th-232+C
Geometry: 16 - Infinite Slab

Source Dimensions
Thick 15.0 cm 5.9 in

Dose Points

	<u>X</u>	<u>Y</u>	<u>Z</u>
# 1	590.16 cm 19 ft 4.3 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
Shield 1	4.65 m	Concrete	1.6
Shield 2	.102 m	Concrete	2.35
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	0.000e+00	0.000e+00	0.000e+00	0.000e+00
0.04	3.631e+02	0.000e+00	0.000e+00	0.000e+00	0.000e+00
0.06	2.508e+02	0.000e+00	0.000e+00	0.000e+00	0.000e+00
0.08	1.533e+04	0.000e+00	0.000e+00	0.000e+00	0.000e+00
0.1	2.551e+03	0.000e+00	0.000e+00	0.000e+00	0.000e+00
0.15	1.513e+03	0.000e+00	0.000e+00	0.000e+00	0.000e+00
0.2	1.931e+04	2.059e-40	2.059e-40	3.635e-43	3.635e-43
0.3	9.354e+03	1.581e-34	1.091e-29	2.998e-37	2.069e-32
0.4	8.514e+02	1.577e-31	2.568e-27	3.073e-34	5.004e-30
0.5	4.953e+03	8.743e-28	5.893e-24	1.716e-30	1.157e-26
0.6	1.130e+04	4.289e-25	1.159e-21	8.372e-28	2.261e-24

Page : 2
DOS File : Th-232c Shielded Deep Surf.ms6
Run Date: February 21, 2008
Run Time: 3:19:57 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>
0.8	1.137e+04	1.370e-21	1.175e-18	2.607e-24	2.236e-21
1.0	2.096e+04	9.089e-19	3.362e-16	1.675e-21	6.197e-19
1.5	4.812e+03	3.709e-15	3.971e-13	6.241e-18	6.682e-16
2.0	1.083e+02	3.339e-14	1.876e-12	5.164e-17	2.901e-15
3.0	1.273e+04	4.492e-09	1.202e-07	6.094e-12	1.631e-10
TOTALS:	1.451e+05	4.492e-09	1.202e-07	6.094e-12	1.631e-10