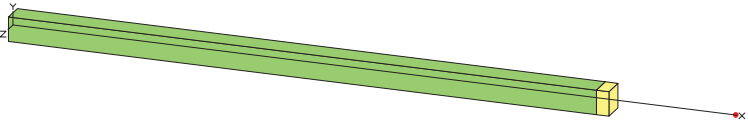


Case Title: Hematite
Description: Industrial Occ., Infinite Slab Shielded Backfill - Am241
Geometry: 16 - Infinite Slab

Source Dimensions
Thick 480.0 cm 15 ft 9.0 in

Dose Points

	<u>X</u>	<u>Y</u>	<u>Z</u>
# 1	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	.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-225	5.7977e-013	2.1451e-008
Am-241	9.5303e-001	3.5262e+004
At-217	5.7976e-013	2.1451e-008
Bi-213	5.7976e-013	2.1451e-008
Fr-221	5.7976e-013	2.1451e-008
Np-237	9.4869e-006	3.5102e-001
Pa-233	9.4540e-006	3.4980e-001
Pb-209	5.7973e-013	2.1450e-008
Po-213	5.6723e-013	2.0988e-008
Ra-225	5.8206e-013	2.1536e-008
Th-229	5.8547e-013	2.1662e-008
Tl-209	1.2523e-014	4.6334e-010
U-233	6.2013e-010	2.2945e-005

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>MeV/cm²/sec</u>	<u>mR/hr</u>	<u>mR/hr</u>
		<u>No Buildup</u>	<u>With Buildup</u>	<u>No Buildup</u>	<u>With Buildup</u>
0.015	1.506e+04	0.000e+00	0.000e+00	0.000e+00	0.000e+00
0.03	8.837e+02	3.434e-13	6.386e-13	3.403e-15	6.329e-15
0.04	6.712e-09	1.187e-17	3.537e-17	5.248e-20	1.564e-19
0.05	4.909e-04	3.194e-10	1.500e-09	8.508e-13	3.995e-12
0.06	1.272e+04	1.441e-01	9.912e-01	2.863e-04	1.969e-03
0.08	5.581e-02	8.781e-06	9.505e-05	1.390e-08	1.504e-07
0.1	1.536e-01	8.188e-05	1.188e-03	1.253e-07	1.817e-06
0.15	6.010e-03	1.399e-05	2.565e-04	2.303e-08	4.224e-07
0.2	1.300e-03	6.949e-06	1.268e-04	1.227e-08	2.237e-07
0.3	1.751e-01	2.768e-03	4.322e-02	5.251e-06	8.199e-05

Page : 2
DOS File : Am-241 Shielded.ms6
Run Date: February 21, 2008
Run Time: 2:40:54 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>
0.4	1.229e-02	4.108e-04	5.292e-03	8.004e-07	1.031e-05
0.5	4.711e-10	2.800e-11	3.051e-10	5.496e-14	5.990e-13
0.6	4.031e-11	3.819e-12	3.585e-11	7.455e-15	6.997e-14
0.8	9.602e-11	1.889e-11	1.367e-10	3.593e-14	2.600e-13
1.0	1.028e-10	3.547e-11	2.115e-10	6.538e-14	3.899e-13
1.5	4.619e-10	4.352e-10	1.822e-09	7.322e-13	3.066e-12
TOTALS:	2.866e+04	1.474e-01	1.041e+00	2.925e-04	2.064e-03