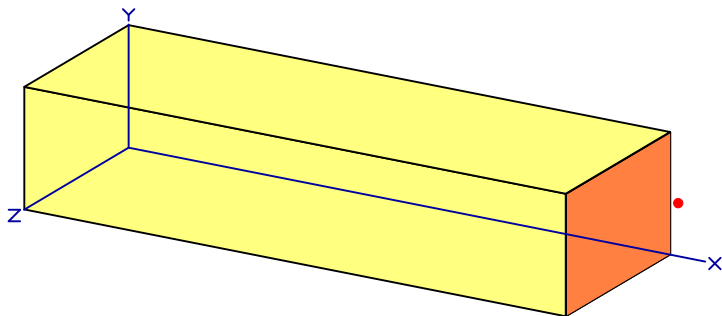


MicroShield v5.05 (5.05-00473)
American Ecology

Page : 1
 DOS File: KUWAITDU.MS5
 Run Date: February 2, 2007
 Run Time: 12:33:39 PM
 Duration: 00:00:18

File Ref: _____
 Date: _____
 By: _____
 Checked: _____

Case Title: Kuwait Truck
Description: U-238-124, U-235-4, U-234-30, decay 2 yr
Geometry: 13 - Rectangular Volume



Source Dimensions

Length	731.52 cm	24 ft
Width	243.84 cm	8 ft
Height	152.4 cm	5 ft 0.0 in

Dose Points

	<u>X</u>	<u>Y</u>	<u>Z</u>
# 1	7.78e+02 cm	91.44 cm	60.96 cm
	25 ft 6.3 in	3 ft	2 ft

Shields

<u>Shield Name</u>	<u>Dimension</u>	<u>Material</u>	<u>Density</u>
Source	960.0 ft ³	Concrete	1.5
Shield 1	.021 ft	Aluminum	2.7
Air Gap		Air	0.00122

Source Input

Grouping Method : Standard Indices

Number of Groups : 25

Lower Energy Cutoff : 0.015

Photons < 0.015 : Excluded

Library : Grove

<u>Nuclide</u>	<u>curies</u>	<u>becquerels</u>	<u>uCi/cm³</u>	<u>Bq/cm³</u>
Ac-227	2.6780e-010	9.9087e+000	9.8515e-012	3.6450e-007
Bi-210	1.2331e-013	4.5627e-003	4.5363e-015	1.6784e-010
Bi-211	2.3781e-010	8.7988e+000	8.7480e-012	3.2368e-007
Bi-214	6.2615e-012	2.3168e-001	2.3034e-013	8.5225e-009
Fr-223	3.6955e-012	1.3673e-001	1.3594e-013	5.0299e-009
Pa-231	8.6093e-009	3.1854e+002	3.1670e-010	1.1718e-005
Pa-234	8.0900e-006	2.9933e+005	2.9760e-007	1.1011e-002
Pa-234m	5.0563e-003	1.8708e+008	1.8600e-004	6.8820e+000
Pb-210	1.2702e-013	4.6999e-003	4.6727e-015	1.7289e-010
Pb-211	2.3781e-010	8.7989e+000	8.7480e-012	3.2368e-007
Pb-214	6.2619e-012	2.3169e-001	2.3035e-013	8.5229e-009
Po-210	6.2310e-014	2.3055e-003	2.2921e-015	8.4809e-011
Po-211	6.4921e-013	2.4021e-002	2.3882e-014	8.8363e-010
Po-214	6.2602e-012	2.3163e-001	2.3029e-013	8.5207e-009
Po-215	2.3783e-010	8.7998e+000	8.7490e-012	3.2371e-007
Po-218	6.2636e-012	2.3175e-001	2.3041e-013	8.5253e-009
Ra-223	2.3783e-010	8.7998e+000	8.7490e-012	3.2371e-007
Ra-226	6.3589e-012	2.3528e-001	2.3392e-013	8.6550e-009
Rn-219	2.3783e-010	8.7998e+000	8.7490e-012	3.2371e-007
Rn-222	6.2636e-012	2.3175e-001	2.3041e-013	8.5253e-009
Th-227	2.4544e-010	9.0814e+000	9.0289e-012	3.3407e-007
Th-230	1.4683e-008	5.4326e+002	5.4012e-010	1.9984e-005
Th-231	2.0388e-004	7.5436e+006	7.5000e-006	2.7750e-001
Th-234	5.0563e-003	1.8708e+008	1.8600e-004	6.8820e+000

Page : 2
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<u>Nuclide</u>	<u>curies</u>	<u>becquerels</u>	<u>µCi/cm³</u>	<u>Bq/cm³</u>
Tl-207	2.3715e-010	8.7747e+000	8.7240e-012	3.2279e-007
U-234	8.1555e-004	3.0175e+007	3.0001e-005	1.1100e+000
U-235	2.0388e-004	7.5436e+006	7.5000e-006	2.7750e-001
U-238	5.0563e-003	1.8708e+008	1.8600e-004	6.8820e+000

Buildup
The material reference is : Source

Integration Parameters

X Direction	20
Y Direction	20
Z Direction	20

Results

<u>Energy</u>	<u>Activity</u>	<u>Fluence Rate</u>	<u>Fluence Rate</u>	<u>Exposure Rate</u>	<u>Exposure Rate</u>
<u>MeV</u>	<u>photons/sec</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	1.419e+04	5.194e-26	5.765e-26	4.455e-27	4.945e-27
0.02	1.134e+00	8.042e-19	9.813e-19	2.786e-20	3.399e-20
0.03	1.105e+06	1.214e-06	1.870e-06	1.203e-08	1.853e-08
0.04	3.669e+02	2.039e-08	4.031e-08	9.016e-11	1.783e-10
0.05	3.561e+04	9.821e-06	2.430e-05	2.616e-08	6.472e-08
0.06	7.359e+06	4.648e-03	1.358e-02	9.232e-06	2.697e-05
0.08	1.151e+06	1.716e-03	6.017e-03	2.715e-06	9.522e-06
0.1	1.228e+07	2.943e-02	1.113e-01	4.502e-05	1.703e-04
0.15	1.269e+06	6.041e-03	2.322e-02	9.949e-06	3.823e-05
0.2	4.718e+06	3.480e-02	1.274e-01	6.142e-05	2.249e-04
0.3	2.177e+04	2.931e-04	9.579e-04	5.559e-07	1.817e-06
0.4	1.838e+04	3.793e-04	1.127e-03	7.391e-07	2.195e-06
0.5	2.730e+04	7.862e-04	2.165e-03	1.543e-06	4.251e-06
0.6	1.115e+05	4.225e-03	1.090e-02	8.246e-06	2.128e-05
0.8	6.211e+05	3.637e-02	8.523e-02	6.919e-05	1.621e-04
1.0	1.986e+06	1.635e-01	3.575e-01	3.015e-04	6.589e-04
1.5	4.189e+04	6.440e-03	1.249e-02	1.083e-05	2.102e-05
2.0	5.404e+03	1.289e-03	2.333e-03	1.994e-06	3.608e-06
TOTALS:	3.077e+07	2.900e-01	7.543e-01	5.229e-04	1.345e-03