MicroShield 9.02
Analogue & Digital Measurements (9.02-0000)

Date	By	Checked

Filename	Run Date	Run Time	Duration
SD-R-10_End_Caps_Centre.msd	September 8, 2011	3:10:26 PM	00:00:00

Project Info	
Case Title	SD-R-10 Drawer
Description	Cobalt 60 - 300 Ci - Centre Source
Geometry	6 - Sphere

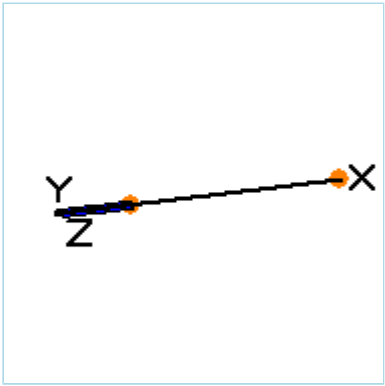
Source Dimensions	
Radius	1.43 cm (0.6 in)

Dose Points

A	X	Y	Z
#1	35.33 cm (1 ft 1.9 in)	0.0 cm (0 in)	0.0 cm (0 in)
#2	135.33 cm (4 ft 5.3 in)	0.0 cm (0 in)	0.0 cm (0 in)

Shields

Shield N	Dimension	Material	Density
Source	12.249 cm³	Air	0.00122
Transition	.6 cm	Iron	7.86
Shield 2	15.27 cm	Tungsten	18.721
Shield 3	4.73 cm	Air	0.00122
Shield 4	2.1 cm	Iron	7.86
Shield 5	10.6 cm	Air	0.00122
Shield 6	.6 cm	Iron	7.86
Air Gap		Air	0.00122



Source Input: Grouping Method - Actual Photon Energies

Nuclide	Ci	Bq	µCi/cm³	Bq/cm³

Co-60	3.0000e+002	1.1100e+013	2.4492e+007	9.0620e+011

Buildup: The material reference is Shield 2 Integration Parameters	
Rho (Radial)	10
Angle	10

Results - Dose Point # 1 - (35.33,0,0) cm

Energy (MeV)	Activity (Photons/sec)	Fluence Rate MeV/cm²/sec No Buildup	Fluence Rate MeV/cm²/sec With Buildup	Exposure Rate mR/hr No Buildup	Exposure Rate mR/hr With Buildup	Absorbed Dose Rate mrad/hr No Buildup	Absorbed Dose Rate mrad/hr With Buildup	Absorbed Dose Rate mGy/hr No Buildup	Absorbed Dose Rate mGy/hr With Buildup
0.6938	1.811e+09	1.027e-07	5.834e-07	1.983e-10	1.126e-09	1.731e-10	9.833e-10	1.731e-12	9.833e-12
1.1732	1.110e+13	1.503e+01	1.136e+02	2.685e-02	2.030e-01	2.344e-02	1.772e-01	2.344e-04	1.772e-03
1.3325	1.110e+13	6.835e+01	5.358e+02	1.186e-01	9.296e-01	1.035e-01	8.116e-01	1.035e-03	8.116e-03
Totals	**2.220e+13**	**8.338e+01**	**6.494e+02**	**1.454e-01**	**1.133e+00**	**1.270e-01**	**9.888e-01**	**1.270e-03**	**9.888e-03**

Results - Dose Point # 2 - (135.33,0,0) cm

Energy (MeV)	Activity (Photons/sec)	Fluence Rate MeV/cm²/sec No Buildup	Fluence Rate MeV/cm²/sec With Buildup	Exposure Rate mR/hr No Buildup	Exposure Rate mR/hr With Buildup	Absorbed Dose Rate mrad/hr No Buildup	Absorbed Dose Rate mrad/hr With Buildup	Absorbed Dose Rate mGy/hr No Buildup	Absorbed Dose Rate mGy/hr With Buildup
0.6938	1.811e+09	6.927e-09	3.936e-08	1.337e-11	7.599e-11	1.168e-11	6.634e-11	1.168e-13	6.634e-13
1.1732	1.110e+13	1.015e+00	7.675e+00	1.814e-03	1.372e-02	1.583e-03	1.197e-02	1.583e-05	1.197e-04
1.3325	1.110e+13	4.618e+00	3.622e+01	8.013e-03	6.284e-02	6.995e-03	5.486e-02	6.995e-05	5.486e-04
Totals	**2.220e+13**	**5.633e+00**	**4.390e+01**	**9.826e-03**	**7.656e-02**	**8.578e-03**	**6.684e-02**	**8.578e-05**	**6.684e-04**