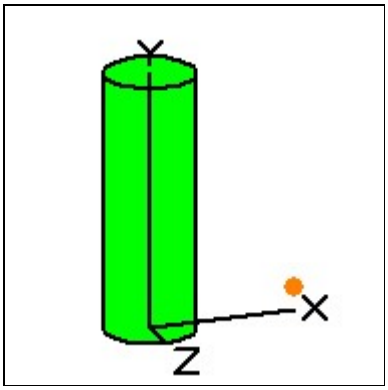
MicroShield 7.02
Dominion (07-MSD-7.02-1318)

Date	By	Checked

Filename	Run Date	Run Time	Duration
ANSI_II.MS7	August 11, 2020	4:56:52 PM	00:00:01

Project Info	
Case Title	Example 2
Description	ANSI/ANS-6.6.1 REFERENCE PROBLEM II.1 CASE 1
Geometry	7 - Cylinder Volume - Side Shields

Source Dimensions	
Height	1.1e+3 cm (35 ft)
Radius	182.88 cm (6 ft)



Dose Points			
A	X	Y	Z
#1	609.6 cm (20 ft 0.0 in)	91.44 cm (3 ft)	0.0 cm (0.0 in)

Shields			
Shield N	Dimension	Material	Density
Source	1.12e+08 cm³	Water	1
Transition		Air	0.00122
Air Gap		Air	0.00122

Source Input: Grouping Method - User Defined Energies				
Group #	Energy (MeV)	Activity (Photons/sec)	Volume Source Photons/sec/cm³	% Energy Activity
1	0.8	4.2034e+009	3.7500e+001	100.000%

Buildup: The material reference is Air Gap Integration Parameters	
Radial	16
Circumferential	16
Y Direction (axial)	16

Results					
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
0.8	4.203e+09	1.932e+01	4.844e+01	3.675e-02	9.213e-02
Totals	**4.203e+09**	**1.932e+01**	**4.844e+01**	**3.675e-02**	**9.213e-02**
	Sensitivity	**Variable**	**X Dose Point 1**	**(1 of 10)**	**(1524 cm)**
0.8	4.203e+09	4.156e+00	1.078e+01	7.904e-03	2.051e-02
Totals	**4.203e+09**	**4.156e+00**	**1.078e+01**	**7.904e-03**	**2.051e-02**
	Sensitivity	**Variable**	**X Dose Point 1**	**(2 of 10)**	**(3048 cm)**
0.8	4.203e+09	9.862e-01	2.755e+00	1.876e-03	5.241e-03

Totals	**4.203e+09**	**9.862e-01**	**2.755e+00**	**1.876e-03**	**5.241e-03**
	Sensitivity	**Variable**	**X Dose Point 1**	**(3 of 10)**	**(4572 cm)**
0.8	4.203e+09	3.881e-01	1.168e+00	7.382e-04	2.221e-03
Totals	**4.203e+09**	**3.881e-01**	**1.168e+00**	**7.382e-04**	**2.221e-03**
	Sensitivity	**Variable**	**X Dose Point 1**	**(4 of 10)**	**(6096 cm)**
0.8	4.203e+09	1.916e-01	6.196e-01	3.645e-04	1.178e-03
Totals	**4.203e+09**	**1.916e-01**	**6.196e-01**	**3.645e-04**	**1.178e-03**
	Sensitivity	**Variable**	**X Dose Point 1**	**(5 of 10)**	**(7620 cm)**
0.8	4.203e+09	1.075e-01	3.726e-01	2.044e-04	7.088e-04
Totals	**4.203e+09**	**1.075e-01**	**3.726e-01**	**2.044e-04**	**7.088e-04**
	Sensitivity	**Variable**	**X Dose Point 1**	**(6 of 10)**	**(9144 cm)**
0.8	4.203e+09	6.539e-02	2.426e-01	1.244e-04	4.615e-04
Totals	**4.203e+09**	**6.539e-02**	**2.426e-01**	**1.244e-04**	**4.615e-04**
	Sensitivity	**Variable**	**X Dose Point 1**	**(7 of 10)**	**(10668 cm)**
0.8	4.203e+09	4.209e-02	1.668e-01	8.005e-05	3.173e-04
Totals	**4.203e+09**	**4.209e-02**	**1.668e-01**	**8.005e-05**	**3.173e-04**
	Sensitivity	**Variable**	**X Dose Point 1**	**(8 of 10)**	**(12192 cm)**
0.8	4.203e+09	2.823e-02	1.193e-01	5.370e-05	2.268e-04
Totals	**4.203e+09**	**2.823e-02**	**1.193e-01**	**5.370e-05**	**2.268e-04**
	Sensitivity	**Variable**	**X Dose Point 1**	**(9 of 10)**	**(13716 cm)**
0.8	4.203e+09	1.955e-02	8.782e-02	3.718e-05	1.670e-04
Totals	**4.203e+09**	**1.955e-02**	**8.782e-02**	**3.718e-05**	**1.670e-04**
	Sensitivity	**Variable**	**X Dose Point 1**	**(10 of 10)**	**(15240 cm)**
0.8	4.203e+09	1.387e-02	6.619e-02	2.639e-05	1.259e-04
Totals	**4.203e+09**	**1.387e-02**	**6.619e-02**	**2.639e-05**	**1.259e-04**

Sensitivity Analysis Summary - X Dose Point 1

Dose Point #	Sensitivity	Sensitivity Dimension	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
1	(1 of 10)	(1524 cm)	4.156e+00	1.078e+01	7.904e-03	2.051e-02
1	(2 of 10)	(3048 cm)	9.862e-01	2.755e+00	1.876e-03	5.241e-03
1	(3 of 10)	(4572 cm)	3.881e-01	1.168e+00	7.382e-04	2.221e-03
1	(4 of 10)	(6096 cm)	1.916e-01	6.196e-01	3.645e-04	1.178e-03
1	(5 of 10)	(7620 cm)	1.075e-01	3.726e-01	2.044e-04	7.088e-04
1	(6 of 10)	(9144 cm)	6.539e-02	2.426e-01	1.244e-04	4.615e-04
1	(7 of 10)	(10668 cm)	4.209e-02	1.668e-01	8.005e-05	3.173e-04
1	(8 of 10)	(12192 cm)	2.823e-02	1.193e-01	5.370e-05	2.268e-04
1	(9 of 10)	(13716 cm)	1.955e-02	8.782e-02	3.718e-05	1.670e-04
1	(10 of 10)	(15240 cm)	1.387e-02	6.619e-02	2.639e-05	1.259e-04