

Table D.44. Surface Soil Dose Assessment

SWMU	EU	COPC	EPC (pCi/g)	Dose (mrem/yr)					
				Future Industrial Worker	Outdoor Worker (Exposed to Surface Soil)		Adult Resident	Child Resident	Adult Recreator
					Exposure Category	Dose (mrem/yr)			
13	2	Uranium-238	1.40E+00	0.03	0.05	0.11	0.13	0.01	0.01
<b>13</b>	<b>2</b>	<b>Totals</b>		<b>0.03</b>	<b>0.05</b>	<b>0.11</b>	<b>0.13</b>	<b>0.01</b>	<b>0.01</b>
13	4	Uranium-238	1.78E+00	0.04	0.06	0.13	0.17	0.01	0.02
<b>13</b>	<b>4</b>	<b>Totals</b>		<b>0.04</b>	<b>0.06</b>	<b>0.13</b>	<b>0.17</b>	<b>0.01</b>	<b>0.02</b>
13	5	Neptunium-237	3.88E-01	0.07	0.07	0.23	0.24	0.02	0.03
13	5	Technetium-99	1.07E+02	0.01	0.02	0.02	0.07	0.00	0.00
13	5	Uranium-234	2.57E+01	0.07	0.42	0.17	0.60	0.01	0.02
13	5	Uranium-235	2.95E+00	0.38	0.32	1.19	1.24	0.12	0.17
13	5	Uranium-238	4.60E+01	1.12	1.49	3.48	4.29	0.35	0.48
<b>13</b>	<b>5</b>	<b>Totals</b>		<b>1.65</b>	<b>2.33</b>	<b>5.09</b>	<b>6.45</b>	<b>0.51</b>	<b>0.70</b>
13	6	Neptunium-237	1.25E+00	0.24	0.22	0.74	0.78	0.08	0.10
13	6	Technetium-99	9.50E+01	0.00	0.02	0.01	0.06	0.00	0.01
13	6	Uranium-234	2.04E+01	0.05	0.33	0.14	0.48	0.01	0.02
13	6	Uranium-235	1.40E+00	0.18	0.15	0.57	0.59	0.06	0.08
13	6	Uranium-238	4.17E+01	1.02	1.35	3.16	3.90	0.32	0.43
<b>13</b>	<b>6</b>	<b>Totals</b>		<b>1.49</b>	<b>2.08</b>	<b>4.62</b>	<b>5.80</b>	<b>0.46</b>	<b>0.64</b>
<b>13</b>	<b>7</b>	<b>Uranium-238</b>	<b>1.30E+00</b>	<b>0.03</b>	<b>0.04</b>	<b>0.10</b>	<b>0.12</b>	<b>0.01</b>	<b>0.01</b>
<b>13</b>	<b>7</b>	<b>Totals</b>		<b>0.03</b>	<b>0.04</b>	<b>0.10</b>	<b>0.12</b>	<b>0.01</b>	<b>0.01</b>
13	9	Neptunium-237	6.88E-01	0.13	0.12	0.41	0.43	0.04	0.06
13	9	Uranium-238	4.07E+00	0.10	0.13	0.31	0.38	0.03	0.04
<b>13</b>	<b>9</b>	<b>Totals</b>		<b>0.23</b>	<b>0.25</b>	<b>0.72</b>	<b>0.81</b>	<b>0.07</b>	<b>0.10</b>
13	14	Uranium-238	2.07E+00	0.05	0.07	0.16	0.19	0.02	0.02
<b>13</b>	<b>14</b>	<b>Totals</b>		<b>0.05</b>	<b>0.07</b>	<b>0.16</b>	<b>0.19</b>	<b>0.02</b>	<b>0.02</b>
15	1	Uranium-238	1.85E+00	0.05	0.06	0.14	0.17	0.01	0.02
<b>15</b>	<b>1</b>	<b>Totals</b>		<b>0.05</b>	<b>0.06</b>	<b>0.14</b>	<b>0.17</b>	<b>0.01</b>	<b>0.02</b>
15	2	Uranium-234	6.51E+00	0.02	0.11	0.04	0.15	0.00	0.01
15	2	Uranium-235	3.80E-01	0.05	0.04	0.15	0.16	0.02	0.02
15	2	Uranium-238	1.21E+01	0.30	0.39	0.92	1.13	0.09	0.13
<b>15</b>	<b>2</b>	<b>Totals</b>		<b>0.36</b>	<b>0.54</b>	<b>1.11</b>	<b>1.44</b>	<b>0.11</b>	<b>0.15</b>

SWMU = solid waste management unit

EU = exposure unit

COPC = chemical of potential concern

EPC = exposure point concentration

Table D.44. Surface Soil Dose Assessment (Continued)

SWMU	EU	COPC	EPC (pCi/g)	Future Industrial Worker	Dose (mrem/yr)					
					Outdoor Worker (Exposed to Surface Soil)	Adult Resident	Child Resident	Adult Recreator	Teen Recreator	Child Recreator
15	3	Neptunium-237	3.24E+00	0.62	0.56	1.93	2.01	0.20	0.27	0.27
15	3	Technetium-99	2.90E+02	0.01	0.07	0.04	0.19	0.00	0.01	0.02
15	3	Thorium-230	5.14E+00	0.07	0.37	0.15	0.43	0.01	0.02	0.04
15	3	Uranium-234	1.40E+02	0.36	2.29	0.94	3.28	0.06	0.13	0.29
15	3	Uranium-235	1.49E+01	1.92	1.63	6.03	6.26	0.62	0.84	0.85
15	3	Uranium-238	8.68E+02	21.16	28.17	65.72	81.07	6.57	9.05	10.18
<b>15</b>	<b>3</b>	<b>Totals</b>		<b>24.14</b>	<b>33.08</b>	<b>74.81</b>	<b>93.24</b>	<b>7.47</b>	<b>10.29</b>	<b>11.65</b>
15	4	Neptunium-237	6.60E-01	0.13	0.11	0.39	0.41	0.04	0.05	0.06
15	4	Uranium-234	7.93E+00	0.02	0.13	0.05	0.19	0.00	0.01	0.02
15	4	Uranium-235	3.64E-01	0.05	0.04	0.15	0.15	0.02	0.02	0.02
15	4	Uranium-238	1.35E+01	0.33	0.44	1.02	1.26	0.10	0.14	0.16
<b>15</b>	<b>4</b>	<b>Totals</b>		<b>0.52</b>	<b>0.72</b>	<b>1.62</b>	<b>2.01</b>	<b>0.16</b>	<b>0.22</b>	<b>0.25</b>
15	5	Neptunium-237	6.90E-01	0.13	0.12	0.41	0.43	0.04	0.06	0.06
15	5	Uranium-235	4.60E-01	0.06	0.05	0.19	0.19	0.02	0.03	0.03
15	5	Uranium-238	1.03E+01	0.25	0.33	0.78	0.96	0.08	0.11	0.12
<b>15</b>	<b>5</b>	<b>Totals</b>		<b>0.44</b>	<b>0.50</b>	<b>1.38</b>	<b>1.58</b>	<b>0.14</b>	<b>0.19</b>	<b>0.21</b>
15	6	Neptunium-237	6.40E-01	0.12	0.11	0.38	0.40	0.04	0.05	0.05
15	6	Uranium-234	8.74E+00	0.02	0.14	0.06	0.20	0.00	0.01	0.02
15	6	Uranium-235	5.70E-01	0.07	0.06	0.23	0.24	0.02	0.03	0.03
15	6	Uranium-238	1.54E+01	0.38	0.50	1.17	1.44	0.12	0.16	0.18
<b>15</b>	<b>6</b>	<b>Totals</b>		<b>0.59</b>	<b>0.82</b>	<b>1.84</b>	<b>2.28</b>	<b>0.18</b>	<b>0.25</b>	<b>0.29</b>
15	7	Uranium-234	6.49E+00	0.02	0.11	0.04	0.15	0.00	0.01	0.01
15	7	Uranium-235	4.50E-01	0.06	0.05	0.18	0.19	0.02	0.03	0.03
15	7	Uranium-238	8.05E+00	0.20	0.26	0.61	0.75	0.06	0.08	0.09
<b>15</b>	<b>7</b>	<b>Totals</b>		<b>0.27</b>	<b>0.42</b>	<b>0.84</b>	<b>1.09</b>	<b>0.08</b>	<b>0.12</b>	<b>0.13</b>
15	8	Neptunium-237	3.65E-01	0.07	0.06	0.22	0.23	0.02	0.03	0.03
15	8	Uranium-238	6.64E+00	0.16	0.22	0.50	0.62	0.05	0.07	0.08
<b>15</b>	<b>8</b>	<b>Totals</b>		<b>0.23</b>	<b>0.28</b>	<b>0.72</b>	<b>0.85</b>	<b>0.07</b>	<b>0.10</b>	<b>0.11</b>
15	9	Uranium-238	7.12E+00	0.17	0.23	0.54	0.67	0.05	0.07	0.08

SWMU = solid waste management unit

EU = exposure unit

COPC = chemical of potential concern

EPC = exposure point concentration

Table D.44. Surface Soil Dose Assessment (Continued)

SWMU	EU	COPC	EPC (pCi/g)	Dose (mrem/yr)							
				Future Industrial Worker	Outdoor Worker (Exposed to Surface Soil)		Adult Resident	Child Resident	Adult Recreator	Teen Recreator	Child Recreator
					0.17	0.23					
15	9	Totals		0.17	0.23	0.54	0.67	0.05	0.07	0.08	
26	1	Uranium-234	7.78E+00	0.02	0.13	0.05	0.18	0.00	0.01	0.02	
26	1	Uranium-235	1.23E+00	0.16	0.13	0.50	0.52	0.05	0.07	0.07	
26	1	Uranium-238	6.75E+01	1.65	2.19	5.12	6.31	0.51	0.70	0.79	
26	1	Totals		1.83	2.45	5.67	7.01	0.57	0.78	0.88	
26	2	Cesium-137	9.52E+00	5.88	4.39	18.53	18.53	1.91	2.57	2.57	
26	2	Neptunium-237	2.15E-01	0.04	0.04	0.13	0.13	0.01	0.02	0.02	
26	2	Radium-228	1.69E+00	0.05	0.38	0.15	1.50	0.01	0.10	0.12	
26	2	Thorium-230	3.59E+00	0.05	0.26	0.11	0.30	0.01	0.01	0.03	
26	2	Uranium-234	1.98E+01	0.05	0.32	0.13	0.46	0.01	0.02	0.04	
26	2	Uranium-235	2.36E+00	0.30	0.26	0.96	0.99	0.10	0.13	0.13	
26	2	Uranium-238	5.01E+01	1.22	1.63	3.79	4.68	0.38	0.52	0.59	
26	2	Totals		7.60	7.27	23.79	26.59	2.43	3.37	3.51	
26	3	Cesium-137	4.51E+00	2.79	2.08	8.78	8.78	0.91	1.22	1.22	
26	3	Neptunium-237	3.70E-01	0.07	0.06	0.22	0.23	0.02	0.03	0.03	
26	3	Uranium-234	5.02E+00	0.01	0.08	0.03	0.12	0.00	0.00	0.01	
26	3	Uranium-235	3.15E-01	0.04	0.03	0.13	0.13	0.01	0.02	0.02	
26	3	Uranium-238	7.00E+00	0.17	0.23	0.53	0.65	0.05	0.07	0.08	
26	3	Totals		3.08	2.49	9.69	9.92	1.00	1.35	1.36	
26	4	Cesium-137	1.02E+00	0.63	0.47	1.99	1.99	0.21	0.28	0.28	
26	4	Neptunium-237	2.80E+00	0.53	0.49	1.66	1.74	0.17	0.23	0.23	
26	4	Plutonium-239/240	1.35E+01	0.21	1.14	0.47	1.20	0.04	0.05	0.11	
26	4	Technetium-99	8.36E+02	0.04	0.19	0.12	0.55	0.01	0.01	0.05	
26	4	Thorium-230	5.48E+01	0.71	3.91	1.64	4.60	0.12	0.17	0.42	
26	4	Uranium-234	2.15E+02	0.56	3.52	1.45	5.04	0.10	0.19	0.44	
26	4	Uranium-235	1.52E+01	1.95	1.66	6.13	6.37	0.63	0.85	0.87	
26	4	Uranium-238	8.49E+02	20.72	27.58	64.35	79.38	6.43	8.86	9.97	
26	4	Totals		25.35	38.96	77.82	100.87	7.71	10.64	12.37	

SWMU = solid waste management unit

EU = exposure unit

COPC = chemical of potential concern

EPC = exposure point concentration

Table D.44. Surface Soil Dose Assessment (Continued)

SWMU	EU	COPC	EPC (pCi/g)	Dose (mrem/yr)						
				Future Industrial Worker	Outdoor Worker (Exposed to Surface Soil)		Adult Resident	Child Resident	Adult Recreator	
					Exposure Pathway	Dose (mrem/yr)				
77	1	Thorium-230	1.03E+01	0.13	0.74	0.31	0.87	0.02	0.03	0.08
77	1	Uranium-238	1.53E+01	0.37	0.50	1.16	1.43	0.12	0.16	0.18
<b>77</b>	<b>1</b>	<b>Totals</b>		<b>0.51</b>	<b>1.23</b>	<b>1.47</b>	<b>2.30</b>	<b>0.14</b>	<b>0.19</b>	<b>0.26</b>
80	2	Americium-241	6.40E+00	0.12	0.47	0.32	0.60	0.03	0.04	0.06
80	2	Cesium-137	8.40E-01	0.52	0.39	1.63	1.63	0.17	0.23	0.23
80	2	Neptunium-237	5.05E-01	0.10	0.09	0.30	0.31	0.03	0.04	0.04
80	2	Uranium-234	2.29E+02	0.60	3.74	1.54	5.36	0.11	0.20	0.47
80	2	Uranium-235	3.00E+01	3.87	3.28	12.15	12.61	1.24	1.69	1.71
80	2	Uranium-238	1.92E+03	46.85	62.37	145.53	179.53	14.55	20.03	22.55
<b>80</b>	<b>2</b>	<b>Totals</b>		<b>52.05</b>	<b>70.33</b>	<b>161.46</b>	<b>200.05</b>	<b>16.13</b>	<b>22.23</b>	<b>25.06</b>
80	3	Uranium-238	1.59E+00	0.04	0.05	0.12	0.15	0.01	0.02	0.02
<b>80</b>	<b>3</b>	<b>Totals</b>		<b>0.04</b>	<b>0.05</b>	<b>0.12</b>	<b>0.15</b>	<b>0.01</b>	<b>0.02</b>	<b>0.02</b>
204	1	Uranium-238	1.27E+00	0.03	0.04	0.10	0.12	0.01	0.01	0.01
<b>204</b>	<b>1</b>	<b>Totals</b>		<b>0.03</b>	<b>0.04</b>	<b>0.10</b>	<b>0.12</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>
204	2	Uranium-238	3.92E+00	0.10	0.13	0.30	0.37	0.03	0.04	0.05
<b>204</b>	<b>2</b>	<b>Totals</b>		<b>0.10</b>	<b>0.13</b>	<b>0.30</b>	<b>0.37</b>	<b>0.03</b>	<b>0.04</b>	<b>0.05</b>
204	3	Uranium-238	2.31E+00	0.06	0.08	0.18	0.22	0.02	0.02	0.03
<b>204</b>	<b>3</b>	<b>Totals</b>		<b>0.06</b>	<b>0.08</b>	<b>0.18</b>	<b>0.22</b>	<b>0.02</b>	<b>0.02</b>	<b>0.03</b>
204	4	Uranium-238	1.82E+00	0.04	0.06	0.14	0.17	0.01	0.02	0.02
<b>204</b>	<b>4</b>	<b>Totals</b>		<b>0.04</b>	<b>0.06</b>	<b>0.14</b>	<b>0.17</b>	<b>0.01</b>	<b>0.02</b>	<b>0.02</b>
204	5	Uranium-238	5.65E+00	0.14	0.18	0.43	0.53	0.04	0.06	0.07
<b>204</b>	<b>5</b>	<b>Totals</b>		<b>0.14</b>	<b>0.18</b>	<b>0.43</b>	<b>0.53</b>	<b>0.04</b>	<b>0.06</b>	<b>0.07</b>
204	6	Uranium-238	3.63E+00	0.09	0.12	0.28	0.34	0.03	0.04	0.04
<b>204</b>	<b>6</b>	<b>Totals</b>		<b>0.09</b>	<b>0.12</b>	<b>0.28</b>	<b>0.34</b>	<b>0.03</b>	<b>0.04</b>	<b>0.04</b>
204	7	Uranium-238	2.04E+00	0.05	0.07	0.15	0.19	0.02	0.02	0.02
<b>204</b>	<b>7</b>	<b>Totals</b>		<b>0.05</b>	<b>0.07</b>	<b>0.15</b>	<b>0.19</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>
204	8	Uranium-238	2.01E+00	0.05	0.07	0.15	0.19	0.02	0.02	0.02
<b>204</b>	<b>8</b>	<b>Totals</b>		<b>0.05</b>	<b>0.07</b>	<b>0.15</b>	<b>0.19</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>

SWMU = solid waste management unit

EU = exposure unit

COPC = chemical of potential concern

EPC = exposure point concentration

Table D.44. Surface Soil Dose Assessment (Continued)

SWMU	EU	COPC	EPC (pCi/g)	Dose (mrem/yr)					
				Future Industrial Worker	Outdoor Worker (Exposed to Surface Soil)		Adult Resident	Child Resident	Adult Recreator
					Adult Resident	Child Resident			
204	9	Uranium-238	2.22E+00	0.05	0.07	0.17	0.21	0.02	0.02
<b>204</b>	<b>9</b>	<b>Totals</b>		<b>0.05</b>	<b>0.07</b>	<b>0.17</b>	<b>0.21</b>	<b>0.02</b>	<b>0.02</b>
204	10	Uranium-238	3.15E+00	0.08	0.10	0.24	0.29	0.02	0.03
<b>204</b>	<b>10</b>	<b>Totals</b>		<b>0.08</b>	<b>0.10</b>	<b>0.24</b>	<b>0.29</b>	<b>0.02</b>	<b>0.03</b>
204	11	Uranium-238	3.09E+00	0.08	0.10	0.23	0.29	0.02	0.03
<b>204</b>	<b>11</b>	<b>Totals</b>		<b>0.08</b>	<b>0.10</b>	<b>0.23</b>	<b>0.29</b>	<b>0.02</b>	<b>0.03</b>
204	12	Uranium-238	3.26E+00	0.08	0.11	0.25	0.30	0.02	0.03
<b>204</b>	<b>12</b>	<b>Totals</b>		<b>0.08</b>	<b>0.11</b>	<b>0.25</b>	<b>0.30</b>	<b>0.02</b>	<b>0.03</b>
204	13	Uranium-238	2.98E+00	0.07	0.10	0.23	0.28	0.02	0.03
<b>204</b>	<b>13</b>	<b>Totals</b>		<b>0.07</b>	<b>0.10</b>	<b>0.23</b>	<b>0.28</b>	<b>0.02</b>	<b>0.03</b>
204	14	Uranium-238	4.25E+00	0.10	0.14	0.32	0.40	0.03	0.04
<b>204</b>	<b>14</b>	<b>Totals</b>		<b>0.10</b>	<b>0.14</b>	<b>0.32</b>	<b>0.40</b>	<b>0.03</b>	<b>0.04</b>
204	15	Cesium-137	6.30E-01	0.39	0.29	1.23	1.23	0.13	0.17
204	15	Uranium-238	5.37E+00	0.13	0.17	0.41	0.50	0.04	0.06
<b>204</b>	<b>15</b>	<b>Totals</b>		<b>0.52</b>	<b>0.46</b>	<b>1.63</b>	<b>1.73</b>	<b>0.17</b>	<b>0.23</b>
204	17	Uranium-238	2.50E+00	0.06	0.08	0.19	0.23	0.02	0.03
<b>204</b>	<b>17</b>	<b>Totals</b>		<b>0.06</b>	<b>0.08</b>	<b>0.19</b>	<b>0.23</b>	<b>0.02</b>	<b>0.03</b>
204	18	Uranium-238	1.81E+00	0.04	0.06	0.14	0.17	0.01	0.02
<b>204</b>	<b>18</b>	<b>Totals</b>		<b>0.04</b>	<b>0.06</b>	<b>0.14</b>	<b>0.17</b>	<b>0.01</b>	<b>0.02</b>
204	19	Uranium-238	2.65E+00	0.06	0.09	0.20	0.25	0.02	0.03
<b>204</b>	<b>19</b>	<b>Totals</b>		<b>0.06</b>	<b>0.09</b>	<b>0.20</b>	<b>0.25</b>	<b>0.02</b>	<b>0.03</b>
204	20	Americium-241	3.71E+00	0.07	0.27	0.18	0.35	0.02	0.04
204	20	Cesium-137	1.17E+00	0.72	0.54	2.28	2.28	0.24	0.32
204	20	Protactinium-231	3.65E+01	1.64	8.83	4.39	11.47	0.33	0.48
204	20	Uranium-234	4.45E+02	1.16	7.27	2.99	10.42	0.21	0.40
204	20	Uranium-235	5.70E+01	7.35	6.23	23.08	23.95	2.37	3.20
204	20	Uranium-238	4.39E+03	106.98	142.40	332.27	409.91	33.23	45.74
<b>204</b>	<b>20</b>	<b>Totals</b>		<b>117.92</b>	<b>165.54</b>	<b>365.19</b>	<b>458.37</b>	<b>36.38</b>	<b>50.15</b>

SWMU = solid waste management unit

EU = exposure unit

COPC = chemical of potential concern

EPC = exposure point concentration

Table D.44. Surface Soil Dose Assessment (Continued)

SWMU	EU	COPC	EPC (pCi/g)	Future Industrial Worker	Dose (mrem/yr)					
					Outdoor Worker (Exposed to Surface Soil)	Adult Resident	Child Resident	Adult Recreator	Teen Recreator	Child Recreator
211	1	Cesium-137	1.67E+00	1.03	0.77	3.25	3.25	0.34	0.45	0.45
211	1	Neptunium-237	5.93E+00	1.13	1.03	3.53	3.68	0.36	0.49	0.50
211	1	Uranium-234	6.69E+01	0.17	1.09	0.45	1.57	0.03	0.06	0.14
211	1	Uranium-238	1.19E+02	2.90	3.86	9.02	11.12	0.90	1.24	1.40
<b>211 1 Totals</b>			<b>5.24</b>		<b>6.76</b>	<b>16.24</b>	<b>19.62</b>	<b>1.63</b>	<b>2.24</b>	<b>2.48</b>
224	1	Uranium-238	1.39E+01	0.34	0.45	1.05	1.30	0.11	0.14	0.16
<b>224 1 Totals</b>			<b>0.34</b>		<b>0.45</b>	<b>1.05</b>	<b>1.30</b>	<b>0.11</b>	<b>0.14</b>	<b>0.16</b>
225	1	Uranium-238	2.04E+00	0.05	0.07	0.15	0.19	0.02	0.02	0.02
<b>225 1 Totals</b>			<b>0.05</b>		<b>0.07</b>	<b>0.15</b>	<b>0.19</b>	<b>0.02</b>	<b>0.02</b>	<b>0.02</b>

SWMU = solid waste management unit

EU = exposure unit

COPC = chemical of potential concern

EPC = exposure point concentration

Table D.45. Subsurface Soil Dose Assessment (Continued)

SWMU	EU	COPC	EPC (pCi/g)	Dose (mrem/yr)	
				Outdoor Worker (Exposed to Surface and Subsurface Soil)	Excavation Worker
13	1	Uranium-238	1.17E+00	0.04	0.04
<b>13</b>	<b>1</b>	<b>Totals</b>		<b>0.04</b>	<b>0.04</b>
13	2	Uranium-238	9.95E-01	0.03	0.03
<b>13</b>	<b>2</b>	<b>Totals</b>		<b>0.03</b>	<b>0.03</b>
13	4	Cobalt-60	8.06E-02	0.03	0.03
13	4	Uranium-238	3.27E+00	0.11	0.11
<b>13</b>	<b>4</b>	<b>Totals</b>		<b>0.14</b>	<b>0.14</b>
13	5	Cesium-137	3.52E-01	0.16	0.16
13	5	Neptunium-237	3.60E-01	0.06	0.06
13	5	Technetium-99	9.19E+01	0.02	0.02
13	5	Uranium-234	2.02E+01	0.33	0.33
13	5	Uranium-235	2.73E+00	0.30	0.30
13	5	Uranium-238	3.77E+01	1.23	1.23
<b>13</b>	<b>5</b>	<b>Totals</b>		<b>2.10</b>	<b>2.10</b>
13	6	Cesium-137	2.02E-01	0.09	0.09
13	6	Neptunium-237	6.23E-01	0.11	0.11
13	6	Technetium-99	8.38E+01	0.02	0.02
13	6	Uranium-234	1.55E+01	0.25	0.25
13	6	Uranium-235	1.16E+00	0.13	0.13
13	6	Uranium-238	3.25E+01	1.05	1.05
<b>13</b>	<b>6</b>	<b>Totals</b>		<b>1.66</b>	<b>1.66</b>
13	7	Uranium-238	3.69E+00	0.12	0.12
<b>13</b>	<b>7</b>	<b>Totals</b>		<b>0.12</b>	<b>0.12</b>
13	9	Cesium-137	2.64E-01	0.12	0.12
13	9	Neptunium-237	5.15E-01	0.09	0.09
13	9	Uranium-238	3.78E+00	0.12	0.12
<b>13</b>	<b>9</b>	<b>Totals</b>		<b>0.33</b>	<b>0.33</b>
13	14	Uranium-238	3.85E+00	0.12	0.12
<b>13</b>	<b>14</b>	<b>Totals</b>		<b>0.12</b>	<b>0.12</b>
15	1	Technetium-99	1.06E+02	0.02	0.02
15	1	Uranium-238	1.30E+00	0.04	0.04
<b>15</b>	<b>1</b>	<b>Totals</b>		<b>0.07</b>	<b>0.07</b>
15	2	Neptunium-237	5.56E-01	0.10	0.10
15	2	Uranium-234	6.51E+00	0.11	0.11
15	2	Uranium-235	3.80E-01	0.04	0.04
15	2	Uranium-238	1.21E+01	0.39	0.39
<b>15</b>	<b>2</b>	<b>Totals</b>		<b>0.64</b>	<b>0.64</b>
15	3	Neptunium-237	4.06E+00	0.71	0.71
15	3	Technetium-99	2.08E+02	0.05	0.05
15	3	Thorium-230	4.61E+00	0.33	0.33
15	3	Uranium-234	1.91E+02	3.12	3.12
15	3	Uranium-235	2.15E+01	2.35	2.35
15	3	Uranium-238	1.08E+03	34.94	34.94

SWMU = solid waste management unit

EU = exposure unit

COPC = chemical of potential concern

EPC = exposure point concentration

Table D.45. Subsurface Soil Dose Assessment (Continued)

SWMU	EU	COPC	EPC (pCi/g)	Dose (mrem/yr)	
				Outdoor Worker (Exposed to Surface and Subsurface Soil)	Excavation Worker
<b>15</b>	<b>3</b>	<b>Totals</b>		<b>41.48</b>	<b>41.48</b>
15	4	Neptunium-237	4.33E-01	0.08	0.08
15	4	Uranium-234	5.74E+00	0.09	0.09
15	4	Uranium-235	2.69E-01	0.03	0.03
15	4	Uranium-238	9.63E+00	0.31	0.31
<b>15</b>	<b>4</b>	<b>Totals</b>		<b>0.51</b>	<b>0.51</b>
15	5	Neptunium-237	5.30E-01	0.09	0.09
15	5	Uranium-235	3.62E-01	0.04	0.04
15	5	Uranium-238	8.14E+00	0.26	0.26
<b>15</b>	<b>5</b>	<b>Totals</b>		<b>0.40</b>	<b>0.40</b>
15	6	Neptunium-237	4.93E-01	0.09	0.09
15	6	Uranium-234	6.91E+00	0.11	0.11
15	6	Uranium-235	4.48E-01	0.05	0.05
15	6	Uranium-238	1.21E+01	0.39	0.39
<b>15</b>	<b>6</b>	<b>Totals</b>		<b>0.64</b>	<b>0.64</b>
15	7	Uranium-234	4.27E+00	0.07	0.07
15	7	Uranium-235	2.96E-01	0.03	0.03
15	7	Uranium-238	6.39E+00	0.21	0.21
<b>15</b>	<b>7</b>	<b>Totals</b>		<b>0.31</b>	<b>0.31</b>
15	8	Neptunium-237	2.83E-01	0.05	0.05
15	8	Uranium-238	4.52E+00	0.15	0.15
<b>15</b>	<b>8</b>	<b>Totals</b>		<b>0.20</b>	<b>0.20</b>
15	9	Uranium-238	4.68E+00	0.15	0.15
<b>15</b>	<b>9</b>	<b>Totals</b>		<b>0.15</b>	<b>0.15</b>
26	1	Uranium-234	8.04E+00	0.13	0.13
26	1	Uranium-235	1.27E+00	0.14	0.14
26	1	Uranium-238	6.95E+01	2.26	2.26
<b>26</b>	<b>1</b>	<b>Totals</b>		<b>2.53</b>	<b>2.53</b>
26	2	Cesium-137	8.23E+00	3.79	3.79
26	2	Neptunium-237	2.04E-01	0.04	0.04
26	2	Radium-228	1.69E+00	0.38	0.38
26	2	Thorium-230	3.02E+00	0.22	0.22
26	2	Uranium-234	1.41E+01	0.23	0.23
26	2	Uranium-235	1.84E+00	0.20	0.20
26	2	Uranium-238	3.92E+01	1.27	1.27
<b>26</b>	<b>2</b>	<b>Totals</b>		<b>6.13</b>	<b>6.13</b>
26	3	Cesium-137	3.38E+00	1.56	1.56
26	3	Neptunium-237	3.35E-01	0.06	0.06
26	3	Uranium-234	3.89E+00	0.06	0.06
26	3	Uranium-235	2.91E-01	0.03	0.03
26	3	Uranium-238	5.86E+00	0.19	0.19
<b>26</b>	<b>3</b>	<b>Totals</b>		<b>1.90</b>	<b>1.90</b>
26	4	Cesium-137	4.69E+00	2.16	2.16

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Table D.45. Subsurface Soil Dose Assessment (Continued)

SWMU	EU	COPC	EPC (pCi/g)	Dose (mrem/yr)	
				Outdoor Worker (Exposed to Surface and Subsurface Soil)	Excavation Worker
26	4	Neptunium-237	3.87E+01	6.73	6.73
26	4	Plutonium-239/240	1.51E+01	1.28	1.28
26	4	Technetium-99	3.81E+03	0.86	0.86
26	4	Thorium-230	8.68E+01	6.20	6.20
26	4	Uranium-234	3.46E+02	5.65	5.65
26	4	Uranium-235	2.46E+01	2.68	2.68
26	4	Uranium-238	8.24E+02	26.75	26.75
<b>26</b>	<b>4</b>	<b>Totals</b>		<b>52.32</b>	<b>52.32</b>
77	1	Thorium-230	1.03E+01	0.74	0.74
77	1	Uranium-238	1.53E+01	0.50	0.50
<b>77</b>	<b>1</b>	<b>Totals</b>		<b>1.23</b>	<b>1.23</b>
80	2	Americium-241	6.40E+00	0.47	0.47
80	2	Cesium-137	8.40E-01	0.39	0.39
80	2	Neptunium-237	5.05E-01	0.09	0.09
80	2	Uranium-234	2.29E+02	3.74	3.74
80	2	Uranium-235	3.00E+01	3.28	3.28
80	2	Uranium-238	1.92E+03	62.37	62.37
<b>80</b>	<b>2</b>	<b>Totals</b>		<b>70.33</b>	<b>70.33</b>
80	3	Uranium-238	2.91E+00	0.09	0.09
<b>80</b>	<b>3</b>	<b>Totals</b>		<b>0.09</b>	<b>0.09</b>
204	1	Uranium-238	1.37E+00	0.04	0.04
<b>204</b>	<b>1</b>	<b>Totals</b>		<b>0.04</b>	<b>0.04</b>
204	2	Uranium-238	2.85E+00	0.09	0.09
<b>204</b>	<b>2</b>	<b>Totals</b>		<b>0.09</b>	<b>0.09</b>
204	3	Uranium-238	2.31E+00	0.08	0.08
<b>204</b>	<b>3</b>	<b>Totals</b>		<b>0.08</b>	<b>0.08</b>
204	4	Uranium-238	1.82E+00	0.06	0.06
<b>204</b>	<b>4</b>	<b>Totals</b>		<b>0.06</b>	<b>0.06</b>
204	5	Uranium-238	6.60E+00	0.21	0.21
<b>204</b>	<b>5</b>	<b>Totals</b>		<b>0.21</b>	<b>0.21</b>
204	6	Uranium-238	3.63E+00	0.12	0.12
<b>204</b>	<b>6</b>	<b>Totals</b>		<b>0.12</b>	<b>0.12</b>
204	7	Uranium-238	2.04E+00	0.07	0.07
<b>204</b>	<b>7</b>	<b>Totals</b>		<b>0.07</b>	<b>0.07</b>
204	8	Uranium-238	2.01E+00	0.07	0.07
<b>204</b>	<b>8</b>	<b>Totals</b>		<b>0.07</b>	<b>0.07</b>
204	9	Uranium-238	2.22E+00	0.07	0.07
<b>204</b>	<b>9</b>	<b>Totals</b>		<b>0.07</b>	<b>0.07</b>
204	10	Cesium-137	2.83E-01	0.13	0.13
204	10	Uranium-238	3.15E+00	0.10	0.10
<b>204</b>	<b>10</b>	<b>Totals</b>		<b>0.23</b>	<b>0.23</b>
204	11	Uranium-238	3.09E+00	0.10	0.10
<b>204</b>	<b>11</b>	<b>Totals</b>		<b>0.10</b>	<b>0.10</b>

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Table D.45. Subsurface Soil Dose Assessment (Continued)

SWMU	EU	COPC	EPC (pCi/g)	Dose (mrem/yr)	
				Outdoor Worker (Exposed to Surface and Subsurface Soil)	Excavation Worker
204	12	Cesium-137	2.93E-01	0.14	0.14
204	12	Uranium-238	3.26E+00	0.11	0.11
<b>204</b>	<b>12</b>	<b>Totals</b>		<b>0.24</b>	<b>0.24</b>
204	13	Cesium-137	2.89E-01	0.13	0.13
204	13	Uranium-238	2.98E+00	0.10	0.10
<b>204</b>	<b>13</b>	<b>Totals</b>		<b>0.23</b>	<b>0.23</b>
204	14	Uranium-238	4.25E+00	0.14	0.14
<b>204</b>	<b>14</b>	<b>Totals</b>		<b>0.14</b>	<b>0.14</b>
204	15	Cesium-137	6.30E-01	0.29	0.29
204	15	Uranium-238	5.37E+00	0.17	0.17
<b>204</b>	<b>15</b>	<b>Totals</b>		<b>0.46</b>	<b>0.46</b>
204	17	Uranium-238	2.50E+00	0.08	0.08
<b>204</b>	<b>17</b>	<b>Totals</b>		<b>0.08</b>	<b>0.08</b>
204	18	Uranium-238	1.81E+00	0.06	0.06
<b>204</b>	<b>18</b>	<b>Totals</b>		<b>0.06</b>	<b>0.06</b>
204	19	Uranium-238	2.65E+00	0.09	0.09
<b>204</b>	<b>19</b>	<b>Totals</b>		<b>0.09</b>	<b>0.09</b>
204	20	Americium-241	3.71E+00	0.27	0.27
204	20	Cesium-137	1.17E+00	0.54	0.54
204	20	Protactinium-231	3.65E+01	8.83	8.83
204	20	Uranium-234	4.45E+02	7.27	7.27
204	20	Uranium-235	5.70E+01	6.23	6.23
204	20	Uranium-238	4.39E+03	142.40	142.40
<b>204</b>	<b>20</b>	<b>Totals</b>		<b>165.54</b>	<b>165.54</b>
211	1	Uranium-234	6.69E+01	1.09	1.09
211	1	Uranium-235	3.86E+00	0.42	0.42
211	1	Uranium-238	1.19E+02	3.86	3.86
<b>211</b>	<b>1</b>	<b>Totals</b>		<b>5.38</b>	<b>5.38</b>
224	1	Cesium-137	3.70E-01	0.17	0.17
224	1	Uranium-238	1.39E+01	0.45	0.45
<b>224</b>	<b>1</b>	<b>Totals</b>		<b>0.62</b>	<b>0.62</b>
225	1	Cesium-137	4.17E-01	0.19	0.19
225	1	Uranium-238	2.04E+00	0.07	0.07
<b>225</b>	<b>1</b>	<b>Totals</b>		<b>0.26</b>	<b>0.26</b>
565	1	Cesium-137	4.00E-01	0.18	0.18
<b>565</b>	<b>1</b>	<b>Totals</b>		<b>0.18</b>	<b>0.18</b>

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