Table D.36. ELCR for the Current Industrial Worker

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
13	**1**	**Surface**	**Totals**						**0.00E+00**	
13	**1**	**Surface**	**Percent**							
13	2	Surface	Uranium-238	1.40E+00	4.83E-09		1.50E-10	4.26E-08	4.76E-08	100%
13	**2**	**Surface**	**Totals**		**4.83E-09**		**1.50E-10**	**4.26E-08**	**4.76E-08**	
13	**2**	**Surface**	**Percent**		**10%**		**0%**	**90%**		
13	3	Surface	PAH, Total	2.15E-02	1.34E-09	1.21E-08	1.74E-16		1.35E-08	100%
13	**3**	**Surface**	**Totals**		**1.34E-09**	**1.21E-08**	**1.74E-16**		**1.35E-08**	
13	**3**	**Surface**	**Percent**		**10%**	**90%**	**0%**			
13	4	Surface	PAH, Total	4.13E-01	2.58E-08	2.33E-07	3.35E-15		2.59E-07	12%
13	4	Surface	PCB, Total	1.05E+01	1.80E-07	1.75E-06	4.42E-14		1.93E-06	86%
13	4	Surface	Uranium-238	1.78E+00	6.13E-09		1.90E-10	5.41E-08	6.04E-08	3%
13	**4**	**Surface**	**Totals**		**2.12E-07**	**1.98E-06**	**1.90E-10**	**5.41E-08**	**2.25E-06**	
13	**4**	**Surface**	**Percent**		**9%**	**88%**	**0%**	**2%**		
13	5	Surface	Chromium	1.38E+01			8.52E-12		8.52E-12	0%
13	5	Surface	Neptunium-237	3.88E-01	9.57E-10		5.03E-11	8.48E-08	8.58E-08	2%
13	5	Surface	PAH, Total	4.41E-01	2.76E-08	2.49E-07	3.57E-15		2.76E-07	8%
13	5	Surface	PCB, Total	6.66E+00	1.14E-07	1.11E-06	2.80E-14		1.22E-06	33%
13	5	Surface	Technetium-99	1.07E+02	1.35E-08		1.84E-11	2.26E-09	1.58E-08	0%
13	5	Surface	Uranium-234	2.57E+01	6.66E-08		3.23E-09	1.66E-09	7.15E-08	2%
13	5	Surface	Uranium-235	2.95E+00	7.94E-09		3.33E-10	4.34E-07	4.42E-07	12%
13	5	Surface	Uranium-238	4.60E+01	1.58E-07		4.92E-09	1.40E-06	1.56E-06	42%
13	**5**	**Surface**	**Totals**		**3.89E-07**	**1.36E-06**	**8.56E-09**	**1.92E-06**	**3.67E-06**	
13	**5**	**Surface**	**Percent**		**11%**	**37%**	**0%**	**52%**		
13	6	Surface	Neptunium-237	1.25E+00	3.08E-09		1.62E-10	2.73E-07	2.76E-07	6%
13	6	Surface	PAH, Total	6.51E-01	4.07E-08	3.67E-07	5.27E-15		4.08E-07	9%
13	6	Surface	PCB, Total	1.08E+01	1.84E-07	1.79E-06	4.52E-14		1.97E-06	45%
13	6	Surface	Technetium-99	9.50E+01	1.21E-08		1.63E-11	2.01E-09	1.41E-08	0%
13	6	Surface	Uranium-234	2.04E+01	5.27E-08		2.56E-09	1.32E-09	5.66E-08	1%
13	6	Surface	Uranium-235	1.40E+00	3.76E-09		1.58E-10	2.06E-07	2.10E-07	5%
13	6	Surface	Uranium-238	4.17E+01	1.44E-07		4.46E-09	1.27E-06	1.42E-06	33%
13	**6**	**Surface**	**Totals**		**4.40E-07**	**2.16E-06**	**7.36E-09**	**1.75E-06**	**4.35E-06**	
13	**6**	**Surface**	**Percent**		**10%**	**50%**	**0%**	**40%**		
13	7	Surface	Uranium-238	1.30E+00	4.48E-09		1.39E-10	3.96E-08	4.42E-08	100%
13	**7**	**Surface**	**Totals**		**4.48E-09**		**1.39E-10**	**3.96E-08**	**4.42E-08**	
13	**7**	**Surface**	**Percent**		**10%**		**0%**	**90%**		
13	8	Surface	PAH, Total	1.22E-02	7.63E-10	6.88E-09	9.88E-17		7.64E-09	100%
13	**8**	**Surface**	**Totals**		**7.63E-10**	**6.88E-09**	**9.88E-17**		**7.64E-09**	
13	**8**	**Surface**	**Percent**		**10%**	**90%**	**0%**			
13	9	Surface	Chromium	1.43E+01			8.87E-12		8.87E-12	0%
13	9	Surface	Neptunium-237	6.88E-01	1.70E-09		8.92E-11	1.50E-07	1.52E-07	49%
13	9	Surface	PAH, Total	2.65E-02	1.66E-09	1.49E-08	2.15E-16		1.66E-08	5%
13	9	Surface	Uranium-238	4.07E+00	1.40E-08		4.36E-10	1.24E-07	1.38E-07	45%
13	**9**	**Surface**	**Totals**		**1.74E-08**	**1.49E-08**	**5.34E-10**	**2.74E-07**	**3.07E-07**	
13	**9**	**Surface**	**Percent**		**6%**	**5%**	**0%**	**89%**		
13	**10**	**Surface**	**Percent**							
13	11	Surface	PCB, Total	1.03E+01	1.77E-07	1.72E-06	4.35E-14		1.90E-06	100%
13	**11**	**Surface**	**Totals**		**1.77E-07**	**1.72E-06**	**4.35E-14**		**1.90E-06**	
13	**11**	**Surface**	**Percent**		**9%**	**91%**	**0%**			
13	**12**	**Surface**	**Percent**							
13	**13**	**Surface**	**Percent**							
13	14	Surface	PAH, Total	3.27E-02	2.04E-09	1.84E-08	2.65E-16		2.05E-08	2%
13	14	Surface	PCB, Total	6.46E+00	1.11E-07	1.07E-06	2.72E-14		1.19E-06	93%
13	14	Surface	Uranium-238	2.07E+00	7.14E-09		2.22E-10	6.30E-08	7.03E-08	6%
13	**14**	**Surface**	**Totals**		**1.20E-07**	**1.09E-06**	**2.22E-10**	**6.30E-08**	**1.28E-06**	
13	**14**	**Surface**	**Percent**		**9%**	**86%**	**0%**	**5%**		
15	1	Surface	Arsenic	1.27E+01	1.63E-07	3.39E-07	4.01E-13		5.01E-07	31%
15	1	Surface	Cadmium	1.56E+01			2.07E-13		2.07E-13	0%
15	1	Surface	Chromium	8.21E+01			5.08E-11		5.08E-11	0%
15	1	Surface	Nickel	1.32E+02			2.52E-13		2.52E-13	0%
15	1	Surface	PAH, Total	1.71E+00	1.07E-07	9.67E-07	1.39E-14		1.07E-06	65%
15	1	Surface	Uranium-238	1.85E+00	6.38E-09		1.98E-10	5.63E-08	6.29E-08	4%
15	**1**	**Surface**	**Totals**		**2.76E-07**	**1.31E-06**	**2.50E-10**	**5.63E-08**	**1.63E-06**	
15	**1**	**Surface**	**Percent**		**17%**	**80%**	**0%**	**3%**		

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.36. ELCR for the Current Industrial Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
15	2	Surface	Arsenic	1.63E+01	2.09E-07	4.35E-07	5.15E-13		6.44E-07	26%
15	2	Surface	Chromium	5.90E+01			3.65E-11		3.65E-11	0%
15	2	Surface	Nickel	1.97E+02			3.78E-13		3.78E-13	0%
15	2	Surface	PAH, Total	2.11E+00	1.32E-07	1.19E-06	1.71E-14		1.32E-06	53%
15	2	Surface	PCB, Total	3.30E-01	5.65E-09	5.49E-08	1.39E-15		6.06E-08	2%
15	2	Surface	Uranium-234	6.51E+00	1.69E-08		8.17E-10	4.21E-10	1.81E-08	1%
15	2	Surface	Uranium-235	3.80E-01	1.02E-09		4.29E-11	5.60E-08	5.70E-08	2%
15	2	Surface	Uranium-238	1.21E+01	4.17E-08		1.30E-09	3.68E-07	4.11E-07	16%
15	**2**	**Surface**	**Totals**		**4.06E-07**	**1.68E-06**	**2.19E-09**	**4.25E-07**	**2.51E-06**	
15	**2**	**Surface**	**Percent**		**16%**	**67%**	**0%**	**17%**		
15	3	Surface	Arsenic	2.74E+01	3.52E-07	7.32E-07	8.67E-13		1.08E-06	3%
15	3	Surface	Cadmium	1.25E+01			1.66E-13		1.66E-13	0%
15	3	Surface	Chromium	7.53E+01			4.66E-11		4.66E-11	0%
15	3	Surface	Cobalt	3.41E+01			2.26E-12		2.26E-12	0%
15	3	Surface	Neptunium-237	3.24E+00	7.98E-09		4.19E-10	7.07E-07	7.16E-07	2%
15	3	Surface	Nickel	8.38E+02			1.60E-12		1.60E-12	0%
15	3	Surface	PAH, Total	1.45E+00	9.09E-08	8.20E-07	1.18E-14		9.11E-07	3%
15	3	Surface	PCB, Total	6.82E+00	1.17E-07	1.14E-06	2.87E-14		1.25E-06	3%
15	3	Surface	Technetium-99	2.90E+02	3.68E-08		4.99E-11	6.14E-09	4.30E-08	0%
15	3	Surface	Thorium-230	5.14E+00	1.49E-08		7.91E-10	1.11E-09	1.68E-08	0%
15	3	Surface	Uranium-234	1.40E+02	3.63E-07		1.76E-08	9.06E-09	3.89E-07	1%
15	3	Surface	Uranium-235	1.49E+01	4.01E-08		1.68E-09	2.19E-06	2.23E-06	6%
15	3	Surface	Uranium-238	8.68E+02	2.99E-06		9.29E-08	2.64E-05	2.95E-05	82%
15	**3**	**Surface**	**Totals**		**4.01E-06**	**2.69E-06**	**1.13E-07**	**2.93E-05**	**3.61E-05**	
15	**3**	**Surface**	**Percent**		**11%**	**7%**	**0%**	**81%**		
15	4	Surface	Arsenic	3.37E+01	4.33E-07	9.01E-07	1.07E-12		1.33E-06	15%
15	4	Surface	Cadmium	1.86E+01			2.46E-13		2.46E-13	0%
15	4	Surface	Chromium	9.02E+01			5.58E-11		5.58E-11	0%
15	4	Surface	Neptunium-237	6.60E-01	1.63E-09		8.55E-11	1.44E-07	1.46E-07	2%
15	4	Surface	Nickel	1.24E+03			2.38E-12		2.38E-12	0%
15	4	Surface	PAH, Total	1.75E+00	1.09E-07	9.86E-07	1.42E-14		1.10E-06	12%
15	4	Surface	PCB, Total	3.13E+01	5.36E-07	5.21E-06	1.32E-13		5.75E-06	65%
15	4	Surface	Uranium-234	7.93E+00	2.05E-08		9.95E-10	5.13E-10	2.20E-08	0%
15	4	Surface	Uranium-235	3.64E-01	9.81E-10		4.11E-11	5.36E-08	5.46E-08	1%
15	4	Surface	Uranium-238	1.35E+01	4.66E-08		1.45E-09	4.11E-07	4.59E-07	5%
15	**4**	**Surface**	**Totals**		**1.15E-06**	**7.10E-06**	**2.63E-09**	**6.10E-07**	**8.86E-06**	
15	**4**	**Surface**	**Percent**		**13%**	**80%**	**0%**	**7%**		
15	5	Surface	Arsenic	1.28E+01	1.64E-07	3.42E-07	4.05E-13		5.06E-07	8%
15	5	Surface	Cadmium	1.46E+01			1.93E-13		1.93E-13	0%
15	5	Surface	Chromium	8.43E+01			5.22E-11		5.22E-11	0%
15	5	Surface	Neptunium-237	6.90E-01	1.70E-09		8.94E-11	1.51E-07	1.53E-07	3%
15	5	Surface	Nickel	3.53E+02			6.76E-13		6.76E-13	0%
15	5	Surface	PAH, Total	5.11E-01	3.19E-08	2.88E-07	4.14E-15		3.20E-07	5%
15	5	Surface	PCB, Total	2.51E+01	4.30E-07	4.18E-06	1.06E-13		4.61E-06	77%
15	5	Surface	Uranium-235	4.60E-01	1.24E-09		5.19E-11	6.78E-08	6.90E-08	1%
15	5	Surface	Uranium-238	1.03E+01	3.55E-08		1.10E-09	3.13E-07	3.50E-07	6%
15	**5**	**Surface**	**Totals**		**6.65E-07**	**4.81E-06**	**1.30E-09**	**5.32E-07**	**6.01E-06**	
15	**5**	**Surface**	**Percent**		**11%**	**80%**	**0%**	**9%**		
15	6	Surface	Arsenic	1.24E+01	1.60E-07	3.32E-07	3.94E-13		4.92E-07	14%
15	6	Surface	Cadmium	1.64E+01			2.17E-13		2.17E-13	0%
15	6	Surface	Chromium	8.25E+01			5.10E-11		5.10E-11	0%
15	6	Surface	Cobalt	1.62E+01			1.07E-12		1.07E-12	0%
15	6	Surface	Neptunium-237	6.40E-01	1.58E-09		8.30E-11	1.40E-07	1.42E-07	4%
15	6	Surface	Nickel	3.00E+02			5.75E-13		5.75E-13	0%
15	6	Surface	PAH, Total	1.62E+00	1.01E-07	9.15E-07	1.32E-14		1.02E-06	30%
15	6	Surface	PCB, Total	6.17E+00	1.06E-07	1.03E-06	2.59E-14		1.13E-06	33%
15	6	Surface	Uranium-234	8.74E+00	2.26E-08		1.10E-09	5.65E-10	2.43E-08	1%
15	6	Surface	Uranium-235	5.70E-01	1.54E-09		6.44E-11	8.40E-08	8.56E-08	3%
15	6	Surface	Uranium-238	1.54E+01	5.31E-08		1.65E-09	4.69E-07	5.23E-07	15%
15	**6**	**Surface**	**Totals**		**4.46E-07**	**2.27E-06**	**2.95E-09**	**6.93E-07**	**3.42E-06**	
15	**6**	**Surface**	**Percent**		**13%**	**67%**	**0%**	**20%**		
15	7	Surface	Arsenic	1.61E+01	2.07E-07	4.30E-07	5.09E-13		6.36E-07	11%
15	7	Surface	Cadmium	1.80E+01			2.38E-13		2.38E-13	0%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.36. ELCR for the Current Industrial Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
15	7	Surface	Chromium	7.97E+01			4.93E-11		4.93E-11	0%
15	7	Surface	Nickel	5.59E+02			1.07E-12		1.07E-12	0%
15	7	Surface	PAH, Total	1.59E-01	9.93E-09	8.96E-08	1.29E-15		9.95E-08	2%
15	7	Surface	PCB, Total	2.57E+01	4.40E-07	4.27E-06	1.08E-13		4.71E-06	81%
15	7	Surface	Uranium-234	6.49E+00	1.68E-08		8.15E-10	4.20E-10	1.80E-08	0%
15	7	Surface	Uranium-235	4.50E-01	1.21E-09		5.08E-11	6.63E-08	6.75E-08	1%
15	7	Surface	Uranium-238	8.05E+00	2.78E-08		8.62E-10	2.45E-07	2.74E-07	5%
15	**7**	**Surface**	**Totals**		**7.02E-07**	**4.79E-06**	**1.78E-09**	**3.12E-07**	**5.81E-06**	
15	**7**	**Surface**	**Percent**		**12%**	**83%**	**0%**	**5%**		
15	8	Surface	Arsenic	1.17E+01	1.50E-07	3.11E-07	3.69E-13		4.61E-07	24%
15	8	Surface	Cadmium	1.68E+01			2.23E-13		2.23E-13	0%
15	8	Surface	Chromium	7.74E+01			4.79E-11		4.79E-11	0%
15	8	Surface	Neptunium-237	3.65E-01	9.01E-10		4.73E-11	7.98E-08	8.07E-08	4%
15	8	Surface	Nickel	1.82E+02			3.48E-13		3.48E-13	0%
15	8	Surface	PAH, Total	3.59E-01	2.24E-08	2.02E-07	2.91E-15		2.25E-07	12%
15	8	Surface	PCB, Total	5.01E+00	8.57E-08	8.33E-07	2.11E-14		9.19E-07	48%
15	8	Surface	Uranium-238	6.64E+00	2.29E-08		7.11E-10	2.02E-07	2.26E-07	12%
15	**8**	**Surface**	**Totals**		**2.82E-07**	**1.35E-06**	**8.07E-10**	**2.82E-07**	**1.91E-06**	
15	**8**	**Surface**	**Percent**		**15%**	**70%**	**0%**	**15%**		
15	9	Surface	Arsenic	1.10E+01	1.42E-07	2.95E-07	3.50E-13		4.37E-07	22%
15	9	Surface	Cadmium	1.81E+01			2.40E-13		2.40E-13	0%
15	9	Surface	Chromium	9.56E+01			5.91E-11		5.91E-11	0%
15	9	Surface	Nickel	1.49E+02			2.85E-13		2.85E-13	0%
15	9	Surface	PAH, Total	2.38E-01	1.49E-08	1.34E-07	1.93E-15		1.49E-07	8%
15	9	Surface	PCB, Total	6.31E+00	1.08E-07	1.05E-06	2.65E-14		1.16E-06	58%
15	9	Surface	Uranium-238	7.12E+00	2.45E-08		7.62E-10	2.17E-07	2.42E-07	12%
15	**9**	**Surface**	**Totals**		**2.89E-07**	**1.48E-06**	**8.22E-10**	**2.17E-07**	**1.99E-06**	
15	**9**	**Surface**	**Percent**		**15%**	**74%**	**0%**	**11%**		
15	10	Surface	Cadmium	1.67E+01			2.21E-13		2.21E-13	0%
15	10	Surface	Chromium	3.55E+01			2.20E-11		2.20E-11	0%
15	10	Surface	Nickel	2.26E+02			4.34E-13		4.34E-13	0%
15	10	Surface	PAH, Total	1.28E-01	8.03E-09	7.24E-08	1.04E-15		8.05E-08	100%
15	**10**	**Surface**	**Totals**		**8.03E-09**	**7.24E-08**	**2.26E-11**		**8.05E-08**	
15	**10**	**Surface**	**Percent**		**10%**	**90%**	**0%**			
26	1	Surface	Chromium	1.67E+01			1.03E-11		1.03E-11	0%
26	1	Surface	PAH, Total	1.97E-01	1.23E-08	1.11E-07	1.60E-15		1.23E-07	3%
26	1	Surface	PCB, Total	9.40E+00	1.61E-07	1.56E-06	3.95E-14		1.72E-06	40%
26	1	Surface	Uranium-234	7.78E+00	2.02E-08		9.77E-10	5.03E-10	2.16E-08	0%
26	1	Surface	Uranium-235	1.23E+00	3.32E-09		1.39E-10	1.81E-07	1.85E-07	4%
26	1	Surface	Uranium-238	6.75E+01	2.33E-07		7.23E-09	2.05E-06	2.29E-06	53%
26	**1**	**Surface**	**Totals**		**4.29E-07**	**1.67E-06**	**8.35E-09**	**2.24E-06**	**4.34E-06**	
26	**1**	**Surface**	**Percent**		**10%**	**39%**	**0%**	**51%**		
26	2	Surface	Arsenic	4.23E+01	5.43E-07	1.13E-06	1.34E-12		1.67E-06	17%
26	2	Surface	Beryllium	1.13E+01			1.99E-13		1.99E-13	0%
26	2	Surface	Cesium-137	9.52E+00	5.40E-09		3.66E-12	4.68E-06	4.69E-06	48%
26	2	Surface	Chromium	4.12E+01			2.55E-11		2.55E-11	0%
26	2	Surface	Cobalt	6.59E+01			4.37E-12		4.37E-12	0%
26	2	Surface	Neptunium-237	2.15E-01	5.31E-10		2.79E-11	4.70E-08	4.76E-08	0%
26	2	Surface	Nickel	1.03E+02			1.97E-13		1.97E-13	0%
26	2	Surface	PCB, Total	3.25E+00	5.57E-08	5.41E-07	1.37E-14		5.97E-07	6%
26	2	Surface	Radium-228	1.69E+00	1.84E-08		1.05E-10	5.49E-07	5.68E-07	6%
26	2	Surface	Thorium-230	3.59E+00	1.04E-08		5.53E-10	7.76E-10	1.18E-08	0%
26	2	Surface	Uranium-234	1.98E+01	5.12E-08		2.48E-09	1.28E-09	5.50E-08	1%
26	2	Surface	Uranium-235	2.36E+00	6.36E-09		2.66E-10	3.48E-07	3.54E-07	4%
26	2	Surface	Uranium-238	5.01E+01	1.73E-07		5.36E-09	1.52E-06	1.70E-06	18%
26	**2**	**Surface**	**Totals**		**8.63E-07**	**1.67E-06**	**8.83E-09**	**7.15E-06**	**9.69E-06**	
26	**2**	**Surface**	**Percent**		**9%**	**17%**	**0%**	**74%**		
26	3	Surface	Arsenic	7.56E+01	9.71E-07	2.02E-06	2.39E-12		2.99E-06	40%
26	3	Surface	Cesium-137	4.51E+00	2.56E-09		1.74E-12	2.22E-06	2.22E-06	30%
26	3	Surface	Chromium	4.56E+01			2.82E-11		2.82E-11	0%
26	3	Surface	Neptunium-237	3.70E-01	9.13E-10		4.80E-11	8.09E-08	8.19E-08	1%
26	3	Surface	PAH, Total	3.30E-01	2.06E-08	1.86E-07	2.67E-15		2.07E-07	3%
26	3	Surface	PCB, Total	8.91E+00	1.53E-07	1.48E-06	3.75E-14		1.63E-06	22%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.36. ELCR for the Current Industrial Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
26	3	Surface	Uranium-234	5.02E+00	1.30E-08		6.30E-10	3.25E-10	1.39E-08	0%
26	3	Surface	Uranium-235	3.15E-01	8.49E-10		3.56E-11	4.64E-08	4.73E-08	1%
26	3	Surface	Uranium-238	7.00E+00	2.41E-08		7.49E-10	2.13E-07	2.38E-07	3%
26	**3**	**Surface**	**Totals**		**1.19E-06**	**3.69E-06**	**1.49E-09**	**2.56E-06**	**7.43E-06**	
26	**3**	**Surface**	**Percent**		**16%**	**50%**	**0%**	**34%**		
26	4	Surface	Arsenic	6.01E+01	7.72E-07	1.61E-06	1.90E-12		2.38E-06	6%
26	4	Surface	Cesium-137	1.02E+00	5.80E-10		3.94E-13	5.03E-07	5.04E-07	1%
26	4	Surface	Chromium	1.14E+02			7.07E-11		7.07E-11	0%
26	4	Surface	Neptunium-237	2.80E+00	6.90E-09		3.62E-10	6.11E-07	6.18E-07	2%
26	4	Surface	Nickel	8.10E+01			1.55E-13		1.55E-13	0%
26	4	Surface	PAH, Total	5.53E+00	3.46E-07	3.12E-06	4.48E-14		3.46E-06	9%
26	4	Surface	PCB, Total	7.95E+00	1.36E-07	1.32E-06	3.34E-14		1.46E-06	4%
26	4	Surface	Plutonium-239/240	1.35E+01	5.39E-08		3.39E-09	7.22E-10	5.80E-08	0%
26	4	Surface	Technetium-99	8.36E+02	1.06E-07		1.44E-10	1.77E-08	1.24E-07	0%
26	4	Surface	Thorium-230	5.48E+01	1.59E-07		8.43E-09	1.18E-08	1.79E-07	0%
26	4	Surface	Uranium-234	2.15E+02	5.58E-07		2.70E-08	1.39E-08	5.99E-07	1%
26	4	Surface	Uranium-235	1.52E+01	4.08E-08		1.71E-09	2.23E-06	2.27E-06	6%
26	4	Surface	Uranium-238	8.49E+02	2.93E-06		9.09E-08	2.58E-05	2.89E-05	71%
26	**4**	**Surface**	**Totals**		**5.11E-06**	**6.05E-06**	**1.32E-07**	**2.92E-05**	**4.06E-05**	
26	**4**	**Surface**	**Percent**		**13%**	**15%**	**0%**	**72%**		
77	1	Surface	Chromium	8.30E+01			5.13E-11		5.13E-11	0%
77	1	Surface	PAH, Total	7.02E-02	4.39E-09	3.96E-08	5.69E-16		4.40E-08	3%
77	1	Surface	PCB, Total	5.00E+00	8.56E-08	8.32E-07	2.10E-14		9.17E-07	61%
77	1	Surface	Thorium-230	1.03E+01	2.99E-08		1.59E-09	2.23E-09	3.37E-08	2%
77	1	Surface	Uranium-238	1.53E+01	5.27E-08		1.64E-09	4.66E-07	5.20E-07	34%
77	**1**	**Surface**	**Totals**		**1.73E-07**	**8.71E-07**	**3.27E-09**	**4.68E-07**	**1.51E-06**	
77	**1**	**Surface**	**Percent**		**11%**	**58%**	**0%**	**31%**		
80	1	Surface	Dioxins/Furans, Total	8.82E-05	9.82E-08	2.04E-07	2.47E-14		3.03E-07	1%
80	1	Surface	PCB, Total	1.20E+02	2.05E-06	2.00E-05	5.05E-13		2.20E-05	99%
80	**1**	**Surface**	**Totals**		**2.15E-06**	**2.02E-05**	**5.29E-13**		**2.23E-05**	
80	**1**	**Surface**	**Percent**		**10%**	**90%**	**0%**			
80	2	Surface	Americium-241	6.40E+00	2.02E-08		1.07E-09	4.44E-08	6.57E-08	0%
80	2	Surface	Cesium-137	8.40E-01	4.76E-10		3.23E-13	4.13E-07	4.14E-07	1%
80	2	Surface	Chromium	1.65E+02			1.02E-10		1.02E-10	0%
80	2	Surface	Cobalt	1.90E+01			1.26E-12		1.26E-12	0%
80	2	Surface	Neptunium-237	5.05E-01	1.25E-09		6.55E-11	1.10E-07	1.12E-07	0%
80	2	Surface	PAH, Total	7.21E-01	4.51E-08	4.07E-07	5.84E-15		4.52E-07	1%
80	2	Surface	PCB, Total	1.26E+01	2.16E-07	2.10E-06	5.30E-14		2.31E-06	3%
80	2	Surface	Uranium-234	2.29E+02	5.93E-07		2.87E-08	1.48E-08	6.37E-07	1%
80	2	Surface	Uranium-235	3.00E+01	8.08E-08		3.39E-09	4.42E-06	4.50E-06	6%
80	2	Surface	Uranium-238	1.92E+03	6.62E-06		2.06E-07	5.85E-05	6.53E-05	89%
80	**2**	**Surface**	**Totals**		**7.58E-06**	**2.50E-06**	**2.39E-07**	**6.35E-05**	**7.38E-05**	
80	**2**	**Surface**	**Percent**		**10%**	**3%**	**0%**	**86%**		
80	3	Surface	Chromium	1.81E+01			1.12E-11		1.12E-11	0%
80	3	Surface	PCB, Total	5.66E+02	9.69E-06	9.42E-05	2.38E-12		1.04E-04	100%
80	3	Surface	Uranium-238	1.59E+00	5.48E-09		1.70E-10	4.84E-08	5.40E-08	0%
80	**3**	**Surface**	**Totals**		**9.70E-06**	**9.42E-05**	**1.84E-10**	**4.84E-08**	**1.04E-04**	
80	**3**	**Surface**	**Percent**		**9%**	**91%**	**0%**	**0%**		
204	1	Surface	Chromium	1.42E+01			8.77E-12		8.77E-12	0%
204	1	Surface	PAH, Total	4.93E-01	3.08E-08	2.78E-07	3.99E-15		3.09E-07	88%
204	1	Surface	Uranium-238	1.27E+00	4.39E-09		1.36E-10	3.88E-08	4.33E-08	12%
204	**1**	**Surface**	**Totals**		**3.52E-08**	**2.78E-07**	**1.45E-10**	**3.88E-08**	**3.52E-07**	
204	**1**	**Surface**	**Percent**		**10%**	**79%**	**0%**	**11%**		
204	2	Surface	Arsenic	4.59E+01	5.90E-07	1.23E-06	1.45E-12		1.82E-06	91%
204	2	Surface	Chromium	1.84E+01			1.14E-11		1.14E-11	0%
204	2	Surface	PAH, Total	6.20E-02	3.88E-09	3.50E-08	5.02E-16		3.88E-08	2%
204	2	Surface	Uranium-238	3.92E+00	1.35E-08		4.20E-10	1.19E-07	1.33E-07	7%
204	**2**	**Surface**	**Totals**		**6.07E-07**	**1.26E-06**	**4.32E-10**	**1.19E-07**	**1.99E-06**	
204	**2**	**Surface**	**Percent**		**31%**	**63%**	**0%**	**6%**		
204	3	Surface	Chromium	1.80E+01			1.11E-11		1.11E-11	0%
204	3	Surface	PAH, Total	3.52E-02	2.20E-09	1.98E-08	2.85E-16		2.20E-08	22%
204	3	Surface	Uranium-238	2.31E+00	7.96E-09		2.47E-10	7.03E-08	7.85E-08	78%
204	**3**	**Surface**	**Totals**		**1.02E-08**	**1.98E-08**	**2.58E-10**	**7.03E-08**	**1.01E-07**	

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.36. ELCR for the Current Industrial Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
204	**3**	**Surface**	**Percent**		**10%**	**20%**	**0%**	**70%**		
204	4	Surface	PAH, Total	2.33E-02	1.46E-09	1.31E-08	1.89E-16		1.46E-08	19%
204	4	Surface	Uranium-238	1.82E+00	6.27E-09		1.95E-10	5.54E-08	6.19E-08	81%
204	**4**	**Surface**	**Totals**		**7.73E-09**	**1.31E-08**	**1.95E-10**	**5.54E-08**	**7.65E-08**	
204	**4**	**Surface**	**Percent**		**10%**	**17%**	**0%**	**72%**		
204	5	Surface	Arsenic	5.67E+01	7.29E-07	1.52E-06	1.80E-12		2.25E-06	92%
204	5	Surface	Chromium	1.61E+01			9.94E-12		9.94E-12	0%
204	5	Surface	PAH, Total	2.04E-02	1.28E-09	1.15E-08	1.65E-16		1.28E-08	1%
204	5	Surface	Uranium-238	5.65E+00	1.95E-08		6.04E-10	1.72E-07	1.92E-07	8%
204	**5**	**Surface**	**Totals**		**7.49E-07**	**1.53E-06**	**6.16E-10**	**1.72E-07**	**2.45E-06**	
204	**5**	**Surface**	**Percent**		**31%**	**62%**	**0%**	**7%**		
204	6	Surface	PAH, Total	3.25E-02	2.03E-09	1.83E-08	2.63E-16		2.04E-08	14%
204	6	Surface	Uranium-238	3.63E+00	1.25E-08		3.89E-10	1.10E-07	1.23E-07	86%
204	**6**	**Surface**	**Totals**		**1.45E-08**	**1.83E-08**	**3.89E-10**	**1.10E-07**	**1.43E-07**	
204	**6**	**Surface**	**Percent**		**10%**	**13%**	**0%**	**77%**		
204	7	Surface	PAH, Total	9.68E-03	6.05E-10	5.46E-09	7.84E-17		6.06E-09	8%
204	7	Surface	Uranium-238	2.04E+00	7.03E-09		2.18E-10	6.21E-08	6.93E-08	92%
204	**7**	**Surface**	**Totals**		**7.64E-09**	**5.46E-09**	**2.18E-10**	**6.21E-08**	**7.54E-08**	
204	**7**	**Surface**	**Percent**		**10%**	**7%**	**0%**	**82%**		
204	8	Surface	Chromium	1.70E+01			1.05E-11		1.05E-11	0%
204	8	Surface	Cobalt	1.40E+01			9.28E-13		9.28E-13	0%
204	8	Surface	PAH, Total	7.37E-02	4.60E-09	4.15E-08	5.97E-16		4.61E-08	40%
204	8	Surface	Uranium-238	2.01E+00	6.93E-09		2.15E-10	6.12E-08	6.83E-08	60%
204	**8**	**Surface**	**Totals**		**1.15E-08**	**4.15E-08**	**2.27E-10**	**6.12E-08**	**1.14E-07**	
204	**8**	**Surface**	**Percent**		**10%**	**36%**	**0%**	**53%**		
204	9	Surface	Chromium	1.80E+01			1.11E-11		1.11E-11	0%
204	9	Surface	PAH, Total	5.01E+00	3.13E-07	2.82E-06	4.06E-14		3.14E-06	98%
204	9	Surface	Uranium-238	2.22E+00	7.65E-09		2.38E-10	6.76E-08	7.54E-08	2%
204	**9**	**Surface**	**Totals**		**3.21E-07**	**2.82E-06**	**2.49E-10**	**6.76E-08**	**3.22E-06**	
204	**9**	**Surface**	**Percent**		**10%**	**88%**	**0%**	**2%**		
204	10	Surface	PAH, Total	6.42E-02	4.01E-09	3.62E-08	5.20E-16		4.02E-08	27%
204	10	Surface	Uranium-238	3.15E+00	1.09E-08		3.37E-10	9.59E-08	1.07E-07	73%
204	**10**	**Surface**	**Totals**		**1.49E-08**	**3.62E-08**	**3.37E-10**	**9.59E-08**	**1.47E-07**	
204	**10**	**Surface**	**Percent**		**10%**	**25%**	**0%**	**65%**		
204	11	Surface	PAH, Total	8.95E-02	5.59E-09	5.05E-08	7.25E-16		5.61E-08	35%
204	11	Surface	Uranium-238	3.09E+00	1.07E-08		3.31E-10	9.40E-08	1.05E-07	65%
204	**11**	**Surface**	**Totals**		**1.62E-08**	**5.05E-08**	**3.31E-10**	**9.40E-08**	**1.61E-07**	
204	**11**	**Surface**	**Percent**		**10%**	**31%**	**0%**	**58%**		
204	12	Surface	PAH, Total	6.43E-02	4.02E-09	3.63E-08	5.21E-16		4.03E-08	27%
204	12	Surface	Uranium-238	3.26E+00	1.12E-08		3.49E-10	9.92E-08	1.11E-07	73%
204	**12**	**Surface**	**Totals**		**1.53E-08**	**3.63E-08**	**3.49E-10**	**9.92E-08**	**1.51E-07**	
204	**12**	**Surface**	**Percent**		**10%**	**24%**	**0%**	**66%**		
204	13	Surface	Chromium	1.70E+01			1.05E-11		1.05E-11	0%
204	13	Surface	PAH, Total	5.05E-01	3.16E-08	2.85E-07	4.09E-15		3.16E-07	76%
204	13	Surface	Uranium-238	2.98E+00	1.03E-08		3.19E-10	9.07E-08	1.01E-07	24%
204	**13**	**Surface**	**Totals**		**4.18E-08**	**2.85E-07**	**3.29E-10**	**9.07E-08**	**4.17E-07**	
204	**13**	**Surface**	**Percent**		**10%**	**68%**	**0%**	**22%**		
204	14	Surface	Arsenic	1.36E+02	1.75E-06	3.64E-06	4.31E-12		5.38E-06	96%
204	14	Surface	Chromium	1.70E+01			1.05E-11		1.05E-11	0%
204	14	Surface	PAH, Total	1.28E-01	7.98E-09	7.20E-08	1.03E-15		7.99E-08	1%
204	14	Surface	Uranium-238	4.25E+00	1.47E-08		4.55E-10	1.29E-07	1.44E-07	3%
204	**14**	**Surface**	**Totals**		**1.77E-06**	**3.71E-06**	**4.70E-10**	**1.29E-07**	**5.60E-06**	
204	**14**	**Surface**	**Percent**		**32%**	**66%**	**0%**	**2%**		
204	15	Surface	Cesium-137	6.30E-01	3.57E-10		2.42E-13	3.10E-07	3.10E-07	62%
204	15	Surface	PAH, Total	1.25E-02	7.79E-10	7.03E-09	1.01E-16		7.80E-09	2%
204	15	Surface	Uranium-238	5.37E+00	1.85E-08		5.75E-10	1.63E-07	1.82E-07	36%
204	**15**	**Surface**	**Totals**		**1.96E-08**	**7.03E-09**	**5.75E-10**	**4.73E-07**	**5.00E-07**	
204	**15**	**Surface**	**Percent**		**4%**	**1%**	**0%**	**95%**		
204	16	Surface	PAH, Total	1.45E-02	9.06E-10	8.17E-09	1.17E-16		9.08E-09	100%
204	**16**	**Surface**	**Totals**		**9.06E-10**	**8.17E-09**	**1.17E-16**		**9.08E-09**	
204	**16**	**Surface**	**Percent**		**10%**	**90%**	**0%**			
204	17	Surface	PAH, Total	5.99E-02	3.74E-09	3.38E-08	4.85E-16		3.75E-08	31%
204	17	Surface	Uranium-238	2.50E+00	8.62E-09		2.68E-10	7.61E-08	8.50E-08	69%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.36. ELCR for the Current Industrial Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
204	**17**	**Surface**	**Totals**		**1.24E-08**	**3.38E-08**	**2.68E-10**	**7.61E-08**	**1.23E-07**	
204	**17**	**Surface**	**Percent**		**10%**	**28%**	**0%**	**62%**		
204	18	Surface	PAH, Total	7.04E-03	4.40E-10	3.97E-09	5.70E-17		4.41E-09	7%
204	18	Surface	Uranium-238	1.81E+00	6.24E-09		1.94E-10	5.51E-08	6.15E-08	93%
204	**18**	**Surface**	**Totals**		**6.68E-09**	**3.97E-09**	**1.94E-10**	**5.51E-08**	**6.59E-08**	
204	**18**	**Surface**	**Percent**		**10%**	**6%**	**0%**	**84%**		
204	19	Surface	PAH, Total	1.30E-01	8.11E-09	7.31E-08	1.05E-15		8.12E-08	47%
204	19	Surface	Uranium-238	2.65E+00	9.14E-09		2.84E-10	8.06E-08	9.01E-08	53%
204	**19**	**Surface**	**Totals**		**1.72E-08**	**7.31E-08**	**2.84E-10**	**8.06E-08**	**1.71E-07**	
204	**19**	**Surface**	**Percent**		**10%**	**43%**	**0%**	**47%**		
204	20	Surface	Americium-241	3.71E+00	1.17E-08		6.19E-10	2.58E-08	3.81E-08	0%
204	20	Surface	Cesium-137	1.17E+00	6.64E-10		4.51E-13	5.77E-07	5.77E-07	0%
204	20	Surface	Chromium	1.75E+02			1.08E-10		1.08E-10	0%
204	20	Surface	PCB, Total	7.90E+01	1.35E-06	1.31E-05	3.32E-13		1.45E-05	8%
204	20	Surface	Protactinium-231	3.65E+01	1.90E-07		1.25E-08	1.18E-06	1.39E-06	1%
204	20	Surface	Uranium-234	4.45E+02	1.15E-06		5.59E-08	2.88E-08	1.24E-06	1%
204	20	Surface	Uranium-235	5.70E+01	1.54E-07		6.44E-09	8.40E-06	8.56E-06	5%
204	20	Surface	Uranium-238	4.39E+03	1.51E-05		4.69E-07	1.33E-04	1.49E-04	85%
204	**20**	**Surface**	**Totals**		**1.80E-05**	**1.31E-05**	**5.45E-07**	**1.44E-04**	**1.75E-04**	
204	**20**	**Surface**	**Percent**		**10%**	**7%**	**0%**	**82%**		
204	21	Surface	Cobalt	1.80E+01			1.19E-12		1.19E-12	100%
204	**21**	**Surface**	**Totals**				**1.19E-12**		**1.19E-12**	
204	**21**	**Surface**	**Percent**				**1.00E+00**			
211	1	Surface	Cesium-137	1.67E+00	9.47E-10		6.42E-13	8.22E-07	8.23E-07	13%
211	1	Surface	Chromium	4.48E+01			2.77E-11		2.77E-11	0%
211	1	Surface	Neptunium-237	5.93E+00	1.46E-08		7.69E-10	1.30E-06	1.31E-06	20%
211	1	Surface	PAH, Total	1.04E-01	6.49E-09	5.85E-08	8.41E-16		6.50E-08	1%
211	1	Surface	PCB, Total	3.60E-01	6.16E-09	5.99E-08	1.51E-15		6.61E-08	1%
211	1	Surface	Uranium-234	6.69E+01	1.73E-07		8.40E-09	4.33E-09	1.86E-07	3%
211	1	Surface	Uranium-238	1.19E+02	4.10E-07		1.27E-08	3.62E-06	4.04E-06	62%
211	**1**	**Surface**	**Totals**		**6.12E-07**	**1.18E-07**	**2.19E-08**	**5.74E-06**	**6.49E-06**	
211	**1**	**Surface**	**Percent**		**9.42E-02**	**1.82E-02**	**3.38E-03**	**8.84E-01**		
224	1	Surface	PAH, Total	5.95E-01	3.72E-08	3.36E-07	4.82E-15		3.73E-07	44%
224	1	Surface	Uranium-238	1.39E+01	4.79E-08		1.49E-09	4.23E-07	4.72E-07	56%
224	**1**	**Surface**	**Totals**		**8.51E-08**	**3.36E-07**	**1.49E-09**	**4.23E-07**	**8.45E-07**	
224	**1**	**Surface**	**Percent**		**1.01E-01**	**3.97E-01**	**1.76E-03**	**5.00E-01**		
225	1	Surface	Chromium	2.55E+01			1.58E-11		1.58E-11	0%
225	1	Surface	PAH, Total	7.79E-02	4.87E-09	4.39E-08	6.31E-16		4.88E-08	41%
225	1	Surface	Uranium-238	2.04E+00	7.03E-09		2.18E-10	6.21E-08	6.93E-08	59%
225	**1**	**Surface**	**Totals**		**1.19E-08**	**4.39E-08**	**2.34E-10**	**6.21E-08**	**1.18E-07**	
225	**1**	**Surface**	**Percent**		**1.01E-01**	**3.72E-01**	**1.98E-03**	**5.26E-01**		

The percentages listed throughout this table under the "Percent" column represent the percent contributions for each COPC to the Total ELCR.
The percentages listed in the row beneath "Totals" represent the percent contributions for each pathway to the Total ELCR.

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.37. ELCR for the Future Industrial Worker

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
13	**1**	**Surface**	**Totals**						**0.00E+00**	
13	**1**	**Surface**	**Percent**							
13	2	Surface	Uranium-238	1.40E+00	8.62E-08		2.68E-09	7.61E-07	8.50E-07	100%
13	**2**	**Surface**	**Totals**		**8.62E-08**		**2.68E-09**	**7.61E-07**	**8.50E-07**	
13	**2**	**Surface**	**Percent**		**10%**		**0%**	**90%**		
13	3	Surface	PAH, Total	2.15E-02	2.40E-08	2.16E-07	3.11E-15		2.40E-07	100%
13	**3**	**Surface**	**Totals**		**2.40E-08**	**2.16E-07**	**3.11E-15**		**2.40E-07**	
13	**3**	**Surface**	**Percent**		**10%**	**90%**	**0%**			
13	4	Surface	PAH, Total	4.13E-01	4.61E-07	4.16E-06	5.97E-14		4.62E-06	12%
13	4	Surface	PCB, Total	1.05E+01	3.22E-06	3.13E-05	7.90E-13		3.45E-05	86%
13	4	Surface	Uranium-238	1.78E+00	1.09E-07		3.40E-09	9.66E-07	1.08E-06	3%
13	**4**	**Surface**	**Totals**		**3.79E-06**	**3.54E-05**	**3.40E-09**	**9.66E-07**	**4.02E-05**	
13	**4**	**Surface**	**Percent**		**9%**	**88%**	**0%**	**2%**		
13	5	Surface	Chromium	1.38E+01			1.52E-10		1.52E-10	0%
13	5	Surface	Neptunium-237	3.88E-01	1.71E-08		8.98E-10	1.51E-06	1.53E-06	2%
13	5	Surface	PAH, Total	4.41E-01	4.92E-07	4.44E-06	6.38E-14		4.93E-06	8%
13	5	Surface	PCB, Total	6.66E+00	2.04E-06	1.98E-05	5.00E-13		2.18E-05	33%
13	5	Surface	Technetium-99	1.07E+02	2.42E-07		3.28E-10	4.03E-08	2.82E-07	0%
13	5	Surface	Uranium-234	2.57E+01	1.19E-06		5.77E-08	2.97E-08	1.28E-06	2%
13	5	Surface	Uranium-235	2.95E+00	1.42E-07		5.94E-09	7.75E-06	7.90E-06	12%
13	5	Surface	Uranium-238	4.60E+01	2.83E-06		8.78E-08	2.50E-05	2.79E-05	43%
13	**5**	**Surface**	**Totals**		**6.95E-06**	**2.42E-05**	**1.53E-07**	**3.43E-05**	**6.56E-05**	
13	**5**	**Surface**	**Percent**		**11%**	**37%**	**0%**	**52%**		
13	6	Surface	Neptunium-237	1.25E+00	5.50E-08		2.89E-09	4.88E-06	4.93E-06	6%
13	6	Surface	PAH, Total	6.51E-01	7.27E-07	6.56E-06	9.42E-14		7.28E-06	9%
13	6	Surface	PCB, Total	1.08E+01	3.29E-06	3.20E-05	8.08E-13		3.53E-05	45%
13	6	Surface	Technetium-99	9.50E+01	2.15E-07		2.92E-10	3.59E-08	2.51E-07	0%
13	6	Surface	Uranium-234	2.04E+01	9.42E-07		4.56E-08	2.35E-08	1.01E-06	1%
13	6	Surface	Uranium-235	1.40E+00	6.72E-08		2.82E-09	3.67E-06	3.74E-06	5%
13	6	Surface	Uranium-238	4.17E+01	2.57E-06		7.97E-08	2.27E-05	2.53E-05	33%
13	**6**	**Surface**	**Totals**		**7.86E-06**	**3.85E-05**	**1.31E-07**	**3.13E-05**	**7.78E-05**	
13	**6**	**Surface**	**Percent**		**10%**	**50%**	**0%**	**40%**		
13	7	Surface	Uranium-238	1.30E+00	8.00E-08		2.48E-09	7.06E-07	7.89E-07	100%
13	**7**	**Surface**	**Totals**		**8.00E-08**		**2.48E-09**	**7.06E-07**	**7.89E-07**	
13	**7**	**Surface**	**Percent**		**10%**		**0%**	**90%**		
13	8	Surface	PAH, Total	1.22E-02	1.36E-08	1.23E-07	1.76E-15		1.36E-07	100%
13	**8**	**Surface**	**Totals**		**1.36E-08**	**1.23E-07**	**1.76E-15**		**1.36E-07**	
13	**8**	**Surface**	**Percent**		**10%**	**90%**	**0%**			
13	9	Surface	Chromium	1.43E+01			1.58E-10		1.58E-10	0%
13	9	Surface	Neptunium-237	6.88E-01	3.03E-08		1.59E-09	2.69E-06	2.72E-06	50%
13	9	Surface	PAH, Total	2.65E-02	2.96E-08	2.67E-07	3.83E-15		2.96E-07	5%
13	9	Surface	Uranium-238	4.07E+00	2.51E-07		7.78E-09	2.21E-06	2.47E-06	45%
13	**9**	**Surface**	**Totals**		**3.10E-07**	**2.67E-07**	**9.53E-09**	**4.90E-06**	**5.49E-06**	
13	**9**	**Surface**	**Percent**		**6%**	**5%**	**0%**	**89%**		
13	**10**	**Surface**	**Percent**							
13	11	Surface	PCB, Total	1.03E+01	3.16E-06	3.07E-05	7.76E-13		3.39E-05	100%
13	**11**	**Surface**	**Totals**		**3.16E-06**	**3.07E-05**	**7.76E-13**		**3.39E-05**	
13	**11**	**Surface**	**Percent**		**9%**	**91%**	**0%**			
13	**12**	**Surface**	**Percent**							
13	**13**	**Surface**	**Percent**							
13	14	Surface	PAH, Total	3.27E-02	3.65E-08	3.29E-07	4.73E-15		3.66E-07	2%
13	14	Surface	PCB, Total	6.46E+00	1.98E-06	1.92E-05	4.85E-13		2.12E-05	93%
13	14	Surface	Uranium-238	2.07E+00	1.27E-07		3.96E-09	1.12E-06	1.26E-06	6%
13	**14**	**Surface**	**Totals**		**2.14E-06**	**1.95E-05**	**3.96E-09**	**1.12E-06**	**2.28E-05**	
13	**14**	**Surface**	**Percent**		**9%**	**86%**	**0%**	**5%**		
15	1	Surface	Arsenic	1.27E+01	2.90E-06	6.04E-06	7.16E-12		8.95E-06	31%
15	1	Surface	Cadmium	1.56E+01			3.70E-12		3.70E-12	0%
15	1	Surface	Chromium	8.21E+01			9.07E-10		9.07E-10	0%
15	1	Surface	Nickel	1.32E+02			4.51E-12		4.51E-12	0%
15	1	Surface	PAH, Total	1.71E+00	1.91E-06	1.73E-05	2.48E-13		1.92E-05	66%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.37. ELCR for the Future Industrial Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
15	1	Surface	Uranium-238	1.85E+00	1.14E-07		3.54E-09	1.01E-06	1.12E-06	4%
15	**1**	**Surface**	**Totals**		**4.93E-06**	**2.33E-05**	**4.46E-09**	**1.01E-06**	**2.93E-05**	
15	**1**	**Surface**	**Percent**		**17%**	**80%**	**0%**	**3%**		
15	2	Surface	Arsenic	1.63E+01	3.73E-06	7.76E-06	9.20E-12		1.15E-05	26%
15	2	Surface	Chromium	5.90E+01			6.52E-10		6.52E-10	0%
15	2	Surface	Nickel	1.97E+02			6.75E-12		6.75E-12	0%
15	2	Surface	PAH, Total	2.11E+00	2.35E-06	2.12E-05	3.05E-13		2.36E-05	53%
15	2	Surface	PCB, Total	3.30E-01	1.01E-07	9.80E-07	2.48E-14		1.08E-06	2%
15	2	Surface	Uranium-234	6.51E+00	3.01E-07		1.46E-08	7.52E-09	3.23E-07	1%
15	2	Surface	Uranium-235	3.80E-01	1.83E-08		7.66E-10	9.99E-07	1.02E-06	2%
15	2	Surface	Uranium-238	1.21E+01	7.45E-07		2.31E-08	6.57E-06	7.34E-06	16%
15	**2**	**Surface**	**Totals**		**7.25E-06**	**3.00E-05**	**3.92E-08**	**7.58E-06**	**4.49E-05**	
15	**2**	**Surface**	**Percent**		**16%**	**67%**	**0%**	**17%**		
15	3	Surface	Arsenic	2.74E+01	6.28E-06	1.31E-05	1.55E-11		1.94E-05	3%
15	3	Surface	Cadmium	1.25E+01			2.96E-12		2.96E-12	0%
15	3	Surface	Chromium	7.53E+01			8.32E-10		8.32E-10	0%
15	3	Surface	Cobalt	3.41E+01			4.04E-11		4.04E-11	0%
15	3	Surface	Neptunium-237	3.24E+00	1.43E-07		7.49E-09	1.26E-05	1.28E-05	2%
15	3	Surface	Nickel	8.38E+02			2.86E-11		2.86E-11	0%
15	3	Surface	PAH, Total	1.45E+00	1.62E-06	1.46E-05	2.10E-13		1.63E-05	3%
15	3	Surface	PCB, Total	6.82E+00	2.09E-06	2.03E-05	5.12E-13		2.24E-05	3%
15	3	Surface	Technetium-99	2.90E+02	6.57E-07		8.91E-10	1.10E-07	7.68E-07	0%
15	3	Surface	Thorium-230	5.14E+00	2.67E-07		1.41E-08	1.98E-08	3.01E-07	0%
15	3	Surface	Uranium-234	1.40E+02	6.48E-06		3.14E-07	1.62E-07	6.96E-06	1%
15	3	Surface	Uranium-235	1.49E+01	7.17E-07		3.00E-08	3.92E-05	3.99E-05	6%
15	3	Surface	Uranium-238	8.68E+02	5.34E-05		1.66E-06	4.71E-04	5.26E-04	82%
15	**3**	**Surface**	**Totals**		**7.17E-05**	**4.80E-05**	**2.03E-06**	**5.23E-04**	**6.45E-04**	
15	**3**	**Surface**	**Percent**		**11%**	**7%**	**0%**	**81%**		
15	4	Surface	Arsenic	3.37E+01	7.72E-06	1.61E-05	1.90E-11		2.38E-05	15%
15	4	Surface	Cadmium	1.86E+01			4.40E-12		4.40E-12	0%
15	4	Surface	Chromium	9.02E+01			9.97E-10		9.97E-10	0%
15	4	Surface	Neptunium-237	6.60E-01	2.91E-08		1.53E-09	2.58E-06	2.61E-06	2%
15	4	Surface	Nickel	1.24E+03			4.24E-11		4.24E-11	0%
15	4	Surface	PAH, Total	1.75E+00	1.95E-06	1.76E-05	2.53E-13		1.96E-05	12%
15	4	Surface	PCB, Total	3.13E+01	9.57E-06	9.30E-05	2.35E-12		1.03E-04	65%
15	4	Surface	Uranium-234	7.93E+00	3.67E-07		1.78E-08	9.16E-09	3.93E-07	0%
15	4	Surface	Uranium-235	3.64E-01	1.75E-08		7.34E-10	9.57E-07	9.76E-07	1%
15	4	Surface	Uranium-238	1.35E+01	8.32E-07		2.58E-08	7.35E-06	8.20E-06	5%
15	**4**	**Surface**	**Totals**		**2.05E-05**	**1.27E-04**	**4.69E-08**	**1.09E-05**	**1.59E-04**	
15	**4**	**Surface**	**Percent**		**13%**	**80%**	**0%**	**7%**		
15	5	Surface	Arsenic	1.28E+01	2.93E-06	6.11E-06	7.23E-12		9.04E-06	8%
15	5	Surface	Cadmium	1.46E+01			3.45E-12		3.45E-12	0%
15	5	Surface	Chromium	8.43E+01			9.31E-10		9.31E-10	0%
15	5	Surface	Neptunium-237	6.90E-01	3.04E-08		1.60E-09	2.69E-06	2.73E-06	3%
15	5	Surface	Nickel	3.53E+02			1.21E-11		1.21E-11	0%
15	5	Surface	PAH, Total	5.11E-01	5.70E-07	5.14E-06	7.39E-14		5.71E-06	5%
15	5	Surface	PCB, Total	2.51E+01	7.68E-06	7.47E-05	1.89E-12		8.23E-05	77%
15	5	Surface	Uranium-235	4.60E-01	2.21E-08		9.27E-10	1.21E-06	1.23E-06	1%
15	5	Surface	Uranium-238	1.03E+01	6.34E-07		1.97E-08	5.60E-06	6.25E-06	6%
15	**5**	**Surface**	**Totals**		**1.19E-05**	**8.59E-05**	**2.32E-08**	**9.50E-06**	**1.07E-04**	
15	**5**	**Surface**	**Percent**		**11%**	**80%**	**0%**	**9%**		
15	6	Surface	Arsenic	1.24E+01	2.85E-06	5.93E-06	7.03E-12		8.79E-06	14%
15	6	Surface	Cadmium	1.64E+01			3.87E-12		3.87E-12	0%
15	6	Surface	Chromium	8.25E+01			9.11E-10		9.11E-10	0%
15	6	Surface	Cobalt	1.62E+01			1.92E-11		1.92E-11	0%
15	6	Surface	Neptunium-237	6.40E-01	2.82E-08		1.48E-09	2.50E-06	2.53E-06	4%
15	6	Surface	Nickel	3.00E+02			1.03E-11		1.03E-11	0%
15	6	Surface	PAH, Total	1.62E+00	1.81E-06	1.63E-05	2.35E-13		1.82E-05	30%
15	6	Surface	PCB, Total	6.17E+00	1.89E-06	1.83E-05	4.63E-13		2.02E-05	33%
15	6	Surface	Uranium-234	8.74E+00	4.04E-07		1.96E-08	1.01E-08	4.34E-07	1%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.37. ELCR for the Future Industrial Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
15	6	Surface	Uranium-235	5.70E-01	2.74E-08		1.15E-09	1.50E-06	1.53E-06	3%
15	6	Surface	Uranium-238	1.54E+01	9.48E-07		2.94E-08	8.37E-06	9.35E-06	15%
15	**6**	**Surface**	**Totals**		**7.96E-06**	**4.06E-05**	**5.26E-08**	**1.24E-05**	**6.10E-05**	
15	**6**	**Surface**	**Percent**		**13%**	**67%**	**0%**	**20%**		
15	7	Surface	Arsenic	1.61E+01	3.69E-06	7.68E-06	9.09E-12		1.14E-05	11%
15	7	Surface	Cadmium	1.80E+01			4.26E-12		4.26E-12	0%
15	7	Surface	Chromium	7.97E+01			8.80E-10		8.80E-10	0%
15	7	Surface	Nickel	5.59E+02			1.91E-11		1.91E-11	0%
15	7	Surface	PAH, Total	1.59E-01	1.77E-07	1.60E-06	2.30E-14		1.78E-06	2%
15	7	Surface	PCB, Total	2.57E+01	7.85E-06	7.63E-05	1.93E-12		8.41E-05	81%
15	7	Surface	Uranium-234	6.49E+00	3.00E-07		1.45E-08	7.50E-09	3.22E-07	0%
15	7	Surface	Uranium-235	4.50E-01	2.17E-08		9.07E-10	1.18E-06	1.21E-06	1%
15	7	Surface	Uranium-238	8.05E+00	4.96E-07		1.54E-08	4.37E-06	4.89E-06	5%
15	**7**	**Surface**	**Totals**		**1.25E-05**	**8.55E-05**	**3.18E-08**	**5.57E-06**	**1.04E-04**	
15	**7**	**Surface**	**Percent**		**12%**	**83%**	**0%**	**5%**		
15	8	Surface	Arsenic	1.17E+01	2.67E-06	5.56E-06	6.59E-12		8.23E-06	24%
15	8	Surface	Cadmium	1.68E+01			3.98E-12		3.98E-12	0%
15	8	Surface	Chromium	7.74E+01			8.55E-10		8.55E-10	0%
15	8	Surface	Neptunium-237	3.65E-01	1.61E-08		8.45E-10	1.42E-06	1.44E-06	4%
15	8	Surface	Nickel	1.82E+02			6.21E-12		6.21E-12	0%
15	8	Surface	PAH, Total	3.59E-01	4.00E-07	3.61E-06	5.19E-14		4.01E-06	12%
15	8	Surface	PCB, Total	5.01E+00	1.53E-06	1.49E-05	3.76E-13		1.64E-05	48%
15	8	Surface	Uranium-238	6.64E+00	4.09E-07		1.27E-08	3.61E-06	4.03E-06	12%
15	**8**	**Surface**	**Totals**		**5.03E-06**	**2.41E-05**	**1.44E-08**	**5.03E-06**	**3.41E-05**	
15	**8**	**Surface**	**Percent**		**15%**	**70%**	**0%**	**15%**		
15	9	Surface	Arsenic	1.10E+01	2.53E-06	5.27E-06	6.24E-12		7.80E-06	22%
15	9	Surface	Cadmium	1.81E+01			4.28E-12		4.28E-12	0%
15	9	Surface	Chromium	9.56E+01			1.06E-09		1.06E-09	0%
15	9	Surface	Nickel	1.49E+02			5.09E-12		5.09E-12	0%
15	9	Surface	PAH, Total	2.38E-01	2.66E-07	2.40E-06	3.45E-14		2.67E-06	8%
15	9	Surface	PCB, Total	6.31E+00	1.93E-06	1.87E-05	4.74E-13		2.07E-05	58%
15	9	Surface	Uranium-238	7.12E+00	4.38E-07		1.36E-08	3.87E-06	4.32E-06	12%
15	**9**	**Surface**	**Totals**		**5.16E-06**	**2.64E-05**	**1.47E-08**	**3.87E-06**	**3.55E-05**	
15	**9**	**Surface**	**Percent**		**15%**	**74%**	**0%**	**11%**		
15	10	Surface	Cadmium	1.67E+01			3.95E-12		3.95E-12	0%
15	10	Surface	Chromium	3.55E+01			3.92E-10		3.92E-10	0%
15	10	Surface	Nickel	2.26E+02			7.74E-12		7.74E-12	0%
15	10	Surface	PAH, Total	1.28E-01	1.43E-07	1.29E-06	1.86E-14		1.44E-06	100%
15	**10**	**Surface**	**Totals**		**1.43E-07**	**1.29E-06**	**4.04E-10**		**1.44E-06**	
15	**10**	**Surface**	**Percent**		**10%**	**90%**	**0%**			
26	1	Surface	Chromium	1.67E+01			1.85E-10		1.85E-10	0%
26	1	Surface	PAH, Total	1.97E-01	2.20E-07	1.98E-06	2.85E-14		2.20E-06	3%
26	1	Surface	PCB, Total	9.40E+00	2.87E-06	2.79E-05	7.06E-13		3.08E-05	40%
26	1	Surface	Uranium-234	7.78E+00	3.60E-07		1.74E-08	8.99E-09	3.86E-07	0%
26	1	Surface	Uranium-235	1.23E+00	5.92E-08		2.48E-09	3.24E-06	3.30E-06	4%
26	1	Surface	Uranium-238	6.75E+01	4.16E-06		1.29E-07	3.67E-05	4.10E-05	53%
26	**1**	**Surface**	**Totals**		**7.67E-06**	**2.99E-05**	**1.49E-07**	**3.99E-05**	**7.77E-05**	
26	**1**	**Surface**	**Percent**		**10%**	**39%**	**0%**	**51%**		
26	2	Surface	Arsenic	4.23E+01	9.69E-06	2.02E-05	2.39E-11		2.99E-05	17%
26	2	Surface	Beryllium	1.13E+01			3.55E-12		3.55E-12	0%
26	2	Surface	Cesium-137	9.52E+00	9.64E-08		6.54E-11	8.37E-05	8.38E-05	48%
26	2	Surface	Chromium	4.12E+01			4.55E-10		4.55E-10	0%
26	2	Surface	Cobalt	6.59E+01			7.80E-11		7.80E-11	0%
26	2	Surface	Neptunium-237	2.15E-01	9.47E-09		4.98E-10	8.39E-07	8.49E-07	0%
26	2	Surface	Nickel	1.03E+02			3.51E-12		3.51E-12	0%
26	2	Surface	PCB, Total	3.25E+00	9.94E-07	9.66E-06	2.44E-13		1.07E-05	6%
26	2	Surface	Radium-228	1.69E+00	3.29E-07		1.87E-09	9.81E-06	1.01E-05	6%
26	2	Surface	Thorium-230	3.59E+00	1.86E-07		9.88E-09	1.39E-08	2.10E-07	0%
26	2	Surface	Uranium-234	1.98E+01	9.14E-07		4.43E-08	2.28E-08	9.81E-07	1%
26	2	Surface	Uranium-235	2.36E+00	1.14E-07		4.76E-09	6.21E-06	6.33E-06	4%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.37. ELCR for the Future Industrial Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
26	2	Surface	Uranium-238	5.01E+01	3.08E-06		9.57E-08	2.72E-05	3.04E-05	18%
26	**2**	**Surface**	**Totals**		**1.54E-05**	**2.98E-05**	**1.58E-07**	**1.28E-04**	**1.73E-04**	
26	**2**	**Surface**	**Percent**		**9%**	**17%**	**0%**	**74%**		
26	3	Surface	Arsenic	7.56E+01	1.73E-05	3.61E-05	4.27E-11		5.34E-05	40%
26	3	Surface	Cesium-137	4.51E+00	4.57E-08		3.10E-11	3.97E-05	3.97E-05	30%
26	3	Surface	Chromium	4.56E+01			5.03E-10		5.03E-10	0%
26	3	Surface	Neptunium-237	3.70E-01	1.63E-08		8.56E-10	1.44E-06	1.46E-06	1%
26	3	Surface	PAH, Total	3.30E-01	3.68E-07	3.32E-06	4.77E-14		3.69E-06	3%
26	3	Surface	PCB, Total	8.91E+00	2.72E-06	2.65E-05	6.69E-13		2.92E-05	22%
26	3	Surface	Uranium-234	5.02E+00	2.32E-07		1.12E-08	5.80E-09	2.49E-07	0%
26	3	Surface	Uranium-235	3.15E-01	1.52E-08		6.35E-10	8.28E-07	8.44E-07	1%
26	3	Surface	Uranium-238	7.00E+00	4.31E-07		1.34E-08	3.80E-06	4.25E-06	3%
26	**3**	**Surface**	**Totals**		**2.12E-05**	**6.59E-05**	**2.67E-08**	**4.57E-05**	**1.33E-04**	
26	**3**	**Surface**	**Percent**		**16%**	**50%**	**0%**	**34%**		
26	4	Surface	Arsenic	6.01E+01	1.38E-05	2.87E-05	3.40E-11		4.25E-05	6%
26	4	Surface	Cesium-137	1.02E+00	1.04E-08		7.03E-12	8.99E-06	9.00E-06	1%
26	4	Surface	Chromium	1.14E+02			1.26E-09		1.26E-09	0%
26	4	Surface	Neptunium-237	2.80E+00	1.23E-07		6.47E-09	1.09E-05	1.10E-05	2%
26	4	Surface	Nickel	8.10E+01			2.77E-12		2.77E-12	0%
26	4	Surface	PAH, Total	5.53E+00	6.17E-06	5.57E-05	8.00E-13		6.18E-05	9%
26	4	Surface	PCB, Total	7.95E+00	2.43E-06	2.36E-05	5.97E-13		2.61E-05	4%
26	4	Surface	Plutonium-239/240	1.35E+01	9.62E-07		6.04E-08	1.29E-08	1.04E-06	0%
26	4	Surface	Technetium-99	8.36E+02	1.89E-06		2.57E-09	3.16E-07	2.21E-06	0%
26	4	Surface	Thorium-230	5.48E+01	2.84E-06		1.51E-07	2.11E-07	3.20E-06	0%
26	4	Surface	Uranium-234	2.15E+02	9.96E-06		4.83E-07	2.49E-07	1.07E-05	1%
26	4	Surface	Uranium-235	1.52E+01	7.29E-07		3.05E-08	3.98E-05	4.06E-05	6%
26	4	Surface	Uranium-238	8.49E+02	5.23E-05		1.62E-06	4.62E-04	5.15E-04	71%
26	**4**	**Surface**	**Totals**		**9.12E-05**	**1.08E-04**	**2.36E-06**	**5.22E-04**	**7.23E-04**	
26	**4**	**Surface**	**Percent**		**13%**	**15%**	**0%**	**72%**		
77	1	Surface	Chromium	8.30E+01			9.17E-10		9.17E-10	0%
77	1	Surface	PAH, Total	7.02E-02	7.83E-08	7.07E-07	1.02E-14		7.85E-07	3%
77	1	Surface	PCB, Total	5.00E+00	1.53E-06	1.49E-05	3.75E-13		1.64E-05	61%
77	1	Surface	Thorium-230	1.03E+01	5.34E-07		2.83E-08	3.97E-08	6.02E-07	2%
77	1	Surface	Uranium-238	1.53E+01	9.42E-07		2.92E-08	8.31E-06	9.28E-06	34%
77	**1**	**Surface**	**Totals**		**3.08E-06**	**1.56E-05**	**5.85E-08**	**8.35E-06**	**2.71E-05**	
77	**1**	**Surface**	**Percent**		**11%**	**58%**	**0%**	**31%**		
80	1	Surface	Dioxins/Furans, Total	8.82E-05	1.75E-06	3.65E-06	4.41E-13		5.40E-06	1%
80	1	Surface	PCB, Total	1.20E+02	3.67E-05	3.57E-04	9.01E-12		3.93E-04	99%
80	**1**	**Surface**	**Totals**		**3.84E-05**	**3.60E-04**	**9.45E-12**		**3.98E-04**	
80	**1**	**Surface**	**Percent**		**10%**	**90%**	**2.37E-08**			
80	2	Surface	Americium-241	6.40E+00	3.61E-07		1.91E-08	7.94E-07	1.17E-06	0%
80	2	Surface	Cesium-137	8.40E-01	8.50E-09		5.77E-12	7.38E-06	7.39E-06	1%
80	2	Surface	Chromium	1.65E+02			1.82E-09		1.82E-09	0%
80	2	Surface	Cobalt	1.90E+01			2.25E-11		2.25E-11	0%
80	2	Surface	Neptunium-237	5.05E-01	2.23E-08		1.17E-09	1.97E-06	1.99E-06	0%
80	2	Surface	PAH, Total	7.21E-01	8.05E-07	7.26E-06	1.04E-13		8.07E-06	1%
80	2	Surface	PCB, Total	1.26E+01	3.85E-06	3.74E-05	9.46E-13		4.13E-05	3%
80	2	Surface	Uranium-234	2.29E+02	1.06E-05		5.13E-07	2.65E-07	1.14E-05	1%
80	2	Surface	Uranium-235	3.00E+01	1.44E-06		6.05E-08	7.89E-05	8.04E-05	6%
80	2	Surface	Uranium-238	1.92E+03	1.18E-04		3.67E-06	1.04E-03	1.17E-03	89%
80	**2**	**Surface**	**Totals**		**1.35E-04**	**4.47E-05**	**4.27E-06**	**1.13E-03**	**1.32E-03**	
80	**2**	**Surface**	**Percent**		**10%**	**3%**	**0%**	**86%**		
80	3	Surface	Chromium	1.81E+01			2.00E-10		2.00E-10	0%
80	3	Surface	PCB, Total	5.66E+02	1.73E-04	1.68E-03	4.25E-11		1.85E-03	100%
80	3	Surface	Uranium-238	1.59E+00	9.79E-08		3.04E-09	8.64E-07	9.65E-07	0%
80	**3**	**Surface**	**Totals**		**1.73E-04**	**1.68E-03**	**3.28E-09**	**8.64E-07**	**1.85E-03**	
80	**3**	**Surface**	**Percent**		**9%**	**91%**	**0%**	**0%**		
204	1	Surface	Chromium	1.42E+01			1.57E-10		1.57E-10	0%
204	1	Surface	PAH, Total	4.93E-01	5.50E-07	4.96E-06	7.13E-14		5.51E-06	88%
204	1	Surface	Uranium-238	1.27E+00	7.84E-08		2.43E-09	6.92E-07	7.73E-07	12%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.37. ELCR for the Future Industrial Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
204	**1**	**Surface**	**Totals**		**6.29E-07**	**4.96E-06**	**2.59E-09**	**6.92E-07**	**6.28E-06**	
204	**1**	**Surface**	**Percent**		**10%**	**79%**	**0%**	**11%**		
204	2	Surface	Arsenic	4.59E+01	1.05E-05	2.19E-05	2.60E-11		3.24E-05	91%
204	2	Surface	Chromium	1.84E+01			2.03E-10		2.03E-10	0%
204	2	Surface	PAH, Total	6.20E-02	6.92E-08	6.24E-07	8.97E-15		6.93E-07	2%
204	2	Surface	Uranium-238	3.92E+00	2.41E-07		7.49E-09	2.13E-06	2.38E-06	7%
204	**2**	**Surface**	**Totals**		**1.08E-05**	**2.25E-05**	**7.72E-09**	**2.13E-06**	**3.55E-05**	
204	**2**	**Surface**	**Percent**		**31%**	**63%**	**0%**	**6%**		
204	3	Surface	Chromium	1.80E+01			1.99E-10		1.99E-10	0%
204	3	Surface	PAH, Total	3.52E-02	3.93E-08	3.54E-07	5.09E-15		3.94E-07	22%
204	3	Surface	Uranium-238	2.31E+00	1.42E-07		4.42E-09	1.26E-06	1.40E-06	78%
204	**3**	**Surface**	**Totals**		**1.81E-07**	**3.54E-07**	**4.61E-09**	**1.26E-06**	**1.79E-06**	
204	**3**	**Surface**	**Percent**		**10%**	**20%**	**0%**	**70%**		
204	4	Surface	PAH, Total	2.33E-02	2.60E-08	2.35E-07	3.37E-15		2.61E-07	19%
204	4	Surface	Uranium-238	1.82E+00	1.12E-07		3.48E-09	9.89E-07	1.10E-06	81%
204	**4**	**Surface**	**Totals**		**1.38E-07**	**2.35E-07**	**3.48E-09**	**9.89E-07**	**1.36E-06**	
204	**4**	**Surface**	**Percent**		**10%**	**17%**	**0%**	**72%**		
204	5	Surface	Arsenic	5.67E+01	1.30E-05	2.71E-05	3.21E-11		4.01E-05	92%
204	5	Surface	Chromium	1.61E+01			1.78E-10		1.78E-10	0%
204	5	Surface	PAH, Total	2.04E-02	2.28E-08	2.05E-07	2.95E-15		2.28E-07	1%
204	5	Surface	Uranium-238	5.65E+00	3.48E-07		1.08E-08	3.07E-06	3.43E-06	8%
204	**5**	**Surface**	**Totals**		**1.34E-05**	**2.73E-05**	**1.10E-08**	**3.07E-06**	**4.38E-05**	
204	**5**	**Surface**	**Percent**		**31%**	**62%**	**0%**	**7%**		
204	6	Surface	PAH, Total	3.25E-02	3.63E-08	3.27E-07	4.70E-15		3.64E-07	14%
204	6	Surface	Uranium-238	3.63E+00	2.23E-07		6.94E-09	1.97E-06	2.20E-06	86%
204	**6**	**Surface**	**Totals**		**2.60E-07**	**3.27E-07**	**6.94E-09**	**1.97E-06**	**2.56E-06**	
204	**6**	**Surface**	**Percent**		**10%**	**13%**	**0%**	**77%**		
204	7	Surface	PAH, Total	9.68E-03	1.08E-08	9.75E-08	1.40E-15		1.08E-07	8%
204	7	Surface	Uranium-238	2.04E+00	1.26E-07		3.90E-09	1.11E-06	1.24E-06	92%
204	**7**	**Surface**	**Totals**		**1.36E-07**	**9.75E-08**	**3.90E-09**	**1.11E-06**	**1.35E-06**	
204	**7**	**Surface**	**Percent**		**10%**	**7%**	**0%**	**82%**		
204	8	Surface	Chromium	1.70E+01			1.88E-10		1.88E-10	0%
204	8	Surface	Cobalt	1.40E+01			1.66E-11		1.66E-11	0%
204	8	Surface	PAH, Total	7.37E-02	8.22E-08	7.42E-07	1.07E-14		8.24E-07	40%
204	8	Surface	Uranium-238	2.01E+00	1.24E-07		3.84E-09	1.09E-06	1.22E-06	60%
204	**8**	**Surface**	**Totals**		**2.06E-07**	**7.42E-07**	**4.05E-09**	**1.09E-06**	**2.04E-06**	
204	**8**	**Surface**	**Percent**		**10%**	**36%**	**0%**	**53%**		
204	9	Surface	Chromium	1.80E+01			1.99E-10		1.99E-10	0%
204	9	Surface	PAH, Total	5.01E+00	5.59E-06	5.04E-05	7.25E-13		5.60E-05	98%
204	9	Surface	Uranium-238	2.22E+00	1.37E-07		4.24E-09	1.21E-06	1.35E-06	2%
204	**9**	**Surface**	**Totals**		**5.73E-06**	**5.04E-05**	**4.44E-09**	**1.21E-06**	**5.74E-05**	
204	**9**	**Surface**	**Percent**		**10%**	**88%**	**0%**	**2%**		
204	10	Surface	PAH, Total	6.42E-02	7.17E-08	6.46E-07	9.29E-15		7.18E-07	27%
204	10	Surface	Uranium-238	3.15E+00	1.94E-07		6.02E-09	1.71E-06	1.91E-06	73%
204	**10**	**Surface**	**Totals**		**2.66E-07**	**6.46E-07**	**6.02E-09**	**1.71E-06**	**2.63E-06**	
204	**10**	**Surface**	**Percent**		**10%**	**25%**	**0%**	**65%**		
204	11	Surface	PAH, Total	8.95E-02	9.99E-08	9.01E-07	1.29E-14		1.00E-06	35%
204	11	Surface	Uranium-238	3.09E+00	1.90E-07		5.91E-09	1.68E-06	1.88E-06	65%
204	**11**	**Surface**	**Totals**		**2.90E-07**	**9.01E-07**	**5.91E-09**	**1.68E-06**	**2.88E-06**	
204	**11**	**Surface**	**Percent**		**10%**	**31%**	**0%**	**58%**		
204	12	Surface	PAH, Total	6.43E-02	7.18E-08	6.47E-07	9.30E-15		7.19E-07	27%
204	12	Surface	Uranium-238	3.26E+00	2.01E-07		6.23E-09	1.77E-06	1.98E-06	73%
204	**12**	**Surface**	**Totals**		**2.72E-07**	**6.47E-07**	**6.23E-09**	**1.77E-06**	**2.70E-06**	
204	**12**	**Surface**	**Percent**		**10%**	**24%**	**0%**	**66%**		
204	13	Surface	Chromium	1.70E+01			1.88E-10		1.88E-10	0%
204	13	Surface	PAH, Total	5.05E-01	5.64E-07	5.08E-06	7.31E-14		5.65E-06	76%
204	13	Surface	Uranium-238	2.98E+00	1.83E-07		5.70E-09	1.62E-06	1.81E-06	24%
204	**13**	**Surface**	**Totals**		**7.47E-07**	**5.08E-06**	**5.88E-09**	**1.62E-06**	**7.46E-06**	
204	**13**	**Surface**	**Percent**		**10%**	**68%**	**0%**	**22%**		
204	14	Surface	Arsenic	1.36E+02	3.12E-05	6.49E-05	7.69E-11		9.61E-05	96%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.37. ELCR for the Future Industrial Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
204	14	Surface	Chromium	1.70E+01			1.88E-10		1.88E-10	0%
204	14	Surface	PAH, Total	1.28E-01	1.42E-07	1.28E-06	1.85E-14		1.43E-06	1%
204	14	Surface	Uranium-238	4.25E+00	2.62E-07		8.12E-09	2.31E-06	2.58E-06	3%
204	**14**	**Surface**	**Totals**		**3.16E-05**	**6.62E-05**	**8.39E-09**	**2.31E-06**	**1.00E-04**	
204	**14**	**Surface**	**Percent**		**32%**	**66%**	**0%**	**2%**		
204	15	Surface	Cesium-137	6.30E-01	6.38E-09		4.33E-12	5.54E-06	5.54E-06	62%
204	15	Surface	PAH, Total	1.25E-02	1.39E-08	1.25E-07	1.80E-15		1.39E-07	2%
204	15	Surface	Uranium-238	5.37E+00	3.31E-07		1.03E-08	2.92E-06	3.26E-06	36%
204	**15**	**Surface**	**Totals**		**3.51E-07**	**1.25E-07**	**1.03E-08**	**8.45E-06**	**8.94E-06**	
204	**15**	**Surface**	**Percent**		**4%**	**1%**	**0%**	**95%**		
204	16	Surface	PAH, Total	1.45E-02	1.62E-08	1.46E-07	2.10E-15		1.62E-07	100%
204	**16**	**Surface**	**Totals**		**1.62E-08**	**1.46E-07**	**2.10E-15**		**1.62E-07**	
204	**16**	**Surface**	**Percent**		**10%**	**90%**	**0%**			
204	17	Surface	PAH, Total	5.99E-02	6.69E-08	6.03E-07	8.67E-15		6.70E-07	31%
204	17	Surface	Uranium-238	2.50E+00	1.54E-07		4.78E-09	1.36E-06	1.52E-06	69%
204	**17**	**Surface**	**Totals**		**2.21E-07**	**6.03E-07**	**4.78E-09**	**1.36E-06**	**2.19E-06**	
204	**17**	**Surface**	**Percent**		**10%**	**28%**	**0%**	**62%**		
204	18	Surface	PAH, Total	7.04E-03	7.86E-09	7.09E-08	1.02E-15		7.87E-08	7%
204	18	Surface	Uranium-238	1.81E+00	1.11E-07		3.46E-09	9.84E-07	1.10E-06	93%
204	**18**	**Surface**	**Totals**		**1.19E-07**	**7.09E-08**	**3.46E-09**	**9.84E-07**	**1.18E-06**	
204	**18**	**Surface**	**Percent**		**10%**	**6%**	**0%**	**84%**		
204	19	Surface	PAH, Total	1.30E-01	1.45E-07	1.31E-06	1.88E-14		1.45E-06	47%
204	19	Surface	Uranium-238	2.65E+00	1.63E-07		5.06E-09	1.44E-06	1.61E-06	53%
204	**19**	**Surface**	**Totals**		**3.08E-07**	**1.31E-06**	**5.06E-09**	**1.44E-06**	**3.06E-06**	
204	**19**	**Surface**	**Percent**		**10%**	**43%**	**0%**	**47%**		
204	20	Surface	Americium-241	3.71E+00	2.09E-07		1.11E-08	4.60E-07	6.80E-07	0%
204	20	Surface	Cesium-137	1.17E+00	1.19E-08		8.05E-12	1.03E-05	1.03E-05	0%
204	20	Surface	Chromium	1.75E+02			1.93E-09		1.93E-09	0%
204	20	Surface	PCB, Total	7.90E+01	2.42E-05	2.35E-04	5.93E-12		2.59E-04	8%
204	20	Surface	Protactinium-231	3.65E+01	3.40E-06		2.24E-07	2.11E-05	2.48E-05	1%
204	20	Surface	Uranium-234	4.45E+02	2.06E-05		9.98E-07	5.14E-07	2.21E-05	1%
204	20	Surface	Uranium-235	5.70E+01	2.74E-06		1.15E-07	1.50E-04	1.53E-04	5%
204	20	Surface	Uranium-238	4.39E+03	2.70E-04		8.38E-06	2.38E-03	2.66E-03	85%
204	**20**	**Surface**	**Totals**		**3.21E-04**	**2.35E-04**	**9.73E-06**	**2.57E-03**	**3.13E-03**	
204	**20**	**Surface**	**Percent**		**10%**	**7%**	**0%**	**82%**		
204	21	Surface	Cobalt	1.80E+01			2.13E-11		2.13E-11	100%
204	**21**	**Surface**	**Totals**				**2.13E-11**		**2.13E-11**	
204	**21**	**Surface**	**Percent**				**1.00E+00**			
211	1	Surface	Cesium-137	1.67E+00	1.69E-08		1.15E-11	1.47E-05	1.47E-05	13%
211	1	Surface	Chromium	4.48E+01			4.94E-10		4.94E-10	0%
211	1	Surface	Neptunium-237	5.93E+00	2.61E-07		1.37E-08	2.32E-05	2.34E-05	20%
211	1	Surface	PAH, Total	1.04E-01	1.16E-07	1.05E-06	1.50E-14		1.16E-06	1%
211	1	Surface	PCB, Total	3.60E-01	1.10E-07	1.07E-06	2.70E-14		1.18E-06	1%
211	1	Surface	Uranium-234	6.69E+01	3.09E-06		1.50E-07	7.73E-08	3.32E-06	3%
211	1	Surface	Uranium-238	1.19E+02	7.33E-06		2.27E-07	6.47E-05	7.22E-05	62%
211	**1**	**Surface**	**Totals**		**1.09E-05**	**2.11E-06**	**3.92E-07**	**1.03E-04**	**1.16E-04**	
211	**1**	**Surface**	**Percent**		**9.42E-02**	**1.82E-02**	**3.38E-03**	**8.84E-01**		
224	1	Surface	PAH, Total	5.95E-01	6.65E-07	6.00E-06	8.61E-14		6.66E-06	44%
224	1	Surface	Uranium-238	1.39E+01	8.56E-07		2.66E-08	7.55E-06	8.44E-06	56%
224	**1**	**Surface**	**Totals**		**1.52E-06**	**6.00E-06**	**2.66E-08**	**7.55E-06**	**1.51E-05**	
224	**1**	**Surface**	**Percent**		**1.01E-01**	**3.97E-01**	**1.76E-03**	**5.00E-01**		
225	1	Surface	Chromium	2.55E+01			2.82E-10		2.82E-10	0%
225	1	Surface	PAH, Total	7.79E-02	8.69E-08	7.84E-07	1.13E-14		8.71E-07	41%
225	1	Surface	Uranium-238	2.04E+00	1.26E-07		3.90E-09	1.11E-06	1.24E-06	59%
225	**1**	**Surface**	**Totals**		**2.12E-07**	**7.84E-07**	**4.18E-09**	**1.11E-06**	**2.11E-06**	
225	**1**	**Surface**	**Percent**		**1.01E-01**	**3.72E-01**	**1.98E-03**	**5.26E-01**		

The percentages listed throughout this table under the "Percent" column represent the percent contributions for each COPC to the Total ELCR.

The percentages listed in the row beneath "Totals" represent the percent contributions for each pathway to the Total ELCR.

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.38. ELCR for the Outdoor Worker Exposed to Surface Soils

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
13	**1**	**Surface**	**Totals**						**0.00E+00**	
13	**1**	**Surface**	**Percent**							
13	2	Surface	Uranium-238	1.40E+00	6.12E-07		1.98E-09	5.63E-07	1.18E-06	100%
13	**2**	**Surface**	**Totals**		**6.12E-07**		**1.98E-09**	**5.63E-07**	**1.18E-06**	
13	**2**	**Surface**	**Percent**		**52%**		**0%**	**48%**		
13	3	Surface	PAH, Total	2.15E-02	1.70E-07	1.60E-07	2.30E-15		3.31E-07	100%
13	**3**	**Surface**	**Totals**		**1.70E-07**	**1.60E-07**	**2.30E-15**		**3.31E-07**	
13	**3**	**Surface**	**Percent**		**52%**	**48%**	**0%**			
13	4	Surface	PAH, Total	4.13E-01	3.27E-06	3.08E-06	4.42E-14		6.35E-06	12%
13	4	Surface	PCB, Total	1.05E+01	2.29E-05	2.31E-05	5.85E-13		4.60E-05	85%
13	4	Surface	Uranium-238	1.78E+00	7.78E-07		2.51E-09	7.15E-07	1.50E-06	3%
13	**4**	**Surface**	**Totals**		**2.69E-05**	**2.62E-05**	**2.52E-09**	**7.15E-07**	**5.39E-05**	
13	**4**	**Surface**	**Percent**		**50%**	**49%**	**0%**	**1%**		
13	5	Surface	Chromium	1.38E+01			1.13E-10		1.13E-10	0%
13	5	Surface	Neptunium-237	3.88E-01	1.21E-07		6.65E-10	1.12E-06	1.24E-06	1%
13	5	Surface	PAH, Total	4.41E-01	3.50E-06	3.29E-06	4.72E-14		6.78E-06	7%
13	5	Surface	PCB, Total	6.66E+00	1.45E-05	1.46E-05	3.70E-13		2.91E-05	31%
13	5	Surface	Technetium-99	1.07E+02	1.72E-06		2.43E-10	2.99E-08	1.75E-06	2%
13	5	Surface	Uranium-234	2.57E+01	8.45E-06		4.27E-08	2.20E-08	8.51E-06	9%
13	5	Surface	Uranium-235	2.95E+00	1.01E-06		4.40E-09	5.73E-06	6.75E-06	7%
13	5	Surface	Uranium-238	4.60E+01	2.01E-05		6.50E-08	1.85E-05	3.86E-05	42%
13	**5**	**Surface**	**Totals**		**4.93E-05**	**1.79E-05**	**1.13E-07**	**2.54E-05**	**9.27E-05**	
13	**5**	**Surface**	**Percent**		**53%**	**19%**	**0%**	**27%**		
13	6	Surface	Neptunium-237	1.25E+00	3.91E-07		2.14E-09	3.61E-06	4.00E-06	4%
13	6	Surface	PAH, Total	6.51E-01	5.16E-06	4.85E-06	6.97E-14		1.00E-05	9%
13	6	Surface	PCB, Total	1.08E+01	2.34E-05	2.37E-05	5.98E-13		4.70E-05	44%
13	6	Surface	Technetium-99	9.50E+01	1.53E-06		2.16E-10	2.66E-08	1.56E-06	1%
13	6	Surface	Uranium-234	2.04E+01	6.69E-06		3.38E-08	1.74E-08	6.74E-06	6%
13	6	Surface	Uranium-235	1.40E+00	4.78E-07		2.08E-09	2.72E-06	3.20E-06	3%
13	6	Surface	Uranium-238	4.17E+01	1.82E-05		5.90E-08	1.68E-05	3.51E-05	33%
13	**6**	**Surface**	**Totals**		**5.59E-05**	**2.85E-05**	**9.72E-08**	**2.31E-05**	**1.08E-04**	
13	**6**	**Surface**	**Percent**		**52%**	**26%**	**0%**	**22%**		
13	7	Surface	Uranium-238	1.30E+00	5.69E-07		1.84E-09	5.23E-07	1.09E-06	100%
13	**7**	**Surface**	**Totals**		**5.69E-07**		**1.84E-09**	**5.23E-07**	**1.09E-06**	
13	**7**	**Surface**	**Percent**		**52%**		**0%**	**48%**		
13	8	Surface	PAH, Total	1.22E-02	9.67E-08	9.09E-08	1.31E-15		1.88E-07	100%
13	**8**	**Surface**	**Totals**		**9.67E-08**	**9.09E-08**	**1.31E-15**		**1.88E-07**	
13	**8**	**Surface**	**Percent**		**52%**	**48%**	**0%**			
13	9	Surface	Chromium	1.43E+01			1.17E-10		1.17E-10	0%
13	9	Surface	Neptunium-237	6.88E-01	2.15E-07		1.18E-09	1.99E-06	2.20E-06	36%
13	9	Surface	PAH, Total	2.65E-02	2.10E-07	1.97E-07	2.84E-15		4.08E-07	7%
13	9	Surface	Uranium-238	4.07E+00	1.78E-06		5.76E-09	1.64E-06	3.42E-06	57%
13	**9**	**Surface**	**Totals**		**2.21E-06**	**1.97E-07**	**7.05E-09**	**3.62E-06**	**6.03E-06**	
13	**9**	**Surface**	**Percent**		**37%**	**3%**	**0%**	**60%**		
13	**10**	**Surface**	**Percent**							
13	11	Surface	PCB, Total	1.03E+01	2.25E-05	2.27E-05	5.75E-13		4.52E-05	100%
13	**11**	**Surface**	**Totals**		**2.25E-05**	**2.27E-05**	**5.75E-13**		**4.52E-05**	
13	**11**	**Surface**	**Percent**		**50%**	**50%**	**0%**			
13	**12**	**Surface**	**Percent**							
13	**13**	**Surface**	**Percent**							
13	14	Surface	PAH, Total	3.27E-02	2.59E-07	2.44E-07	3.50E-15		5.03E-07	2%
13	14	Surface	PCB, Total	6.46E+00	1.40E-05	1.42E-05	3.59E-13		2.82E-05	93%
13	14	Surface	Uranium-238	2.07E+00	9.05E-07		2.93E-09	8.32E-07	1.74E-06	6%
13	**14**	**Surface**	**Totals**		**1.52E-05**	**1.44E-05**	**2.93E-09**	**8.32E-07**	**3.04E-05**	
13	**14**	**Surface**	**Percent**		**50%**	**47%**	**0%**	**3%**		
15	1	Surface	Arsenic	1.27E+01	2.06E-05	4.47E-06	5.30E-12		2.51E-05	47%
15	1	Surface	Cadmium	1.56E+01			2.73E-12		2.73E-12	0%
15	1	Surface	Chromium	8.21E+01			6.71E-10		6.71E-10	0%
15	1	Surface	Nickel	1.32E+02			3.34E-12		3.34E-12	0%
15	1	Surface	PAH, Total	1.71E+00	1.36E-05	1.28E-05	1.84E-13		2.64E-05	50%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.38. ELCR for the Outdoor Worker Exposed to Surface Soils (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
15	1	Surface	Uranium-238	1.85E+00	8.09E-07		2.62E-09	7.44E-07	1.56E-06	3%
15	**1**	**Surface**	**Totals**		**3.50E-05**	**1.72E-05**	**3.30E-09**	**7.44E-07**	**5.31E-05**	
15	**1**	**Surface**	**Percent**		**66%**	**33%**	**0%**	**1%**		
15	2	Surface	Arsenic	1.63E+01	2.65E-05	5.75E-06	6.80E-12		3.22E-05	41%
15	2	Surface	Chromium	5.90E+01			4.82E-10		4.82E-10	0%
15	2	Surface	Nickel	1.97E+02			4.99E-12		4.99E-12	0%
15	2	Surface	PAH, Total	2.11E+00	1.67E-05	1.57E-05	2.26E-13		3.24E-05	41%
15	2	Surface	PCB, Total	3.30E-01	7.17E-07	7.25E-07	1.83E-14		1.44E-06	2%
15	2	Surface	Uranium-234	6.51E+00	2.14E-06		1.08E-08	5.57E-09	2.16E-06	3%
15	2	Surface	Uranium-235	3.80E-01	1.30E-07		5.67E-10	7.40E-07	8.70E-07	1%
15	2	Surface	Uranium-238	1.21E+01	5.29E-06		1.71E-08	4.87E-06	1.02E-05	13%
15	**2**	**Surface**	**Totals**		**5.15E-05**	**2.22E-05**	**2.90E-08**	**5.61E-06**	**7.93E-05**	
15	**2**	**Surface**	**Percent**		**65%**	**28%**	**0%**	**7%**		
15	3	Surface	Arsenic	2.74E+01	4.46E-05	9.68E-06	1.15E-11		5.43E-05	6%
15	3	Surface	Cadmium	1.25E+01			2.19E-12		2.19E-12	0%
15	3	Surface	Chromium	7.53E+01			6.16E-10		6.16E-10	0%
15	3	Surface	Cobalt	3.41E+01			2.99E-11		2.99E-11	0%
15	3	Surface	Neptunium-237	3.24E+00	1.01E-06		5.54E-09	9.35E-06	1.04E-05	1%
15	3	Surface	Nickel	8.38E+02			2.12E-11		2.12E-11	0%
15	3	Surface	PAH, Total	1.45E+00	1.15E-05	1.08E-05	1.56E-13		2.24E-05	2%
15	3	Surface	PCB, Total	6.82E+00	1.48E-05	1.50E-05	3.79E-13		2.98E-05	3%
15	3	Surface	Technetium-99	2.90E+02	4.67E-06		6.59E-10	8.11E-08	4.75E-06	1%
15	3	Surface	Thorium-230	5.14E+00	1.89E-06		1.05E-08	1.47E-08	1.92E-06	0%
15	3	Surface	Uranium-234	1.40E+02	4.60E-05		2.32E-07	1.20E-07	4.64E-05	5%
15	3	Surface	Uranium-235	1.49E+01	5.09E-06		2.22E-08	2.90E-05	3.41E-05	4%
15	3	Surface	Uranium-238	8.68E+02	3.79E-04		1.23E-06	3.49E-04	7.29E-04	78%
15	**3**	**Surface**	**Totals**		**5.09E-04**	**3.55E-05**	**1.50E-06**	**3.87E-04**	**9.33E-04**	
15	**3**	**Surface**	**Percent**		**55%**	**4%**	**0%**	**41%**		
15	4	Surface	Arsenic	3.37E+01	5.49E-05	1.19E-05	1.41E-11		6.68E-05	27%
15	4	Surface	Cadmium	1.86E+01			3.25E-12		3.25E-12	0%
15	4	Surface	Chromium	9.02E+01			7.38E-10		7.38E-10	0%
15	4	Surface	Neptunium-237	6.60E-01	2.07E-07		1.13E-09	1.91E-06	2.11E-06	1%
15	4	Surface	Nickel	1.24E+03			3.14E-11		3.14E-11	0%
15	4	Surface	PAH, Total	1.75E+00	1.39E-05	1.30E-05	1.87E-13		2.69E-05	11%
15	4	Surface	PCB, Total	3.13E+01	6.80E-05	6.88E-05	1.74E-12		1.37E-04	55%
15	4	Surface	Uranium-234	7.93E+00	2.60E-06		1.31E-08	6.78E-09	2.62E-06	1%
15	4	Surface	Uranium-235	3.64E-01	1.24E-07		5.43E-10	7.08E-07	8.33E-07	0%
15	4	Surface	Uranium-238	1.35E+01	5.91E-06		1.91E-08	5.44E-06	1.14E-05	5%
15	**4**	**Surface**	**Totals**		**1.46E-04**	**9.38E-05**	**3.47E-08**	**8.06E-06**	**2.48E-04**	
15	**4**	**Surface**	**Percent**		**59%**	**38%**	**0%**	**3%**		
15	5	Surface	Arsenic	1.28E+01	2.08E-05	4.52E-06	5.35E-12		2.54E-05	16%
15	5	Surface	Cadmium	1.46E+01			2.55E-12		2.55E-12	0%
15	5	Surface	Chromium	8.43E+01			6.89E-10		6.89E-10	0%
15	5	Surface	Neptunium-237	6.90E-01	2.16E-07		1.18E-09	1.99E-06	2.21E-06	1%
15	5	Surface	Nickel	3.53E+02			8.93E-12		8.93E-12	0%
15	5	Surface	PAH, Total	5.11E-01	4.05E-06	3.80E-06	5.47E-14		7.85E-06	5%
15	5	Surface	PCB, Total	2.51E+01	5.46E-05	5.52E-05	1.40E-12		1.10E-04	71%
15	5	Surface	Uranium-235	4.60E-01	1.57E-07		6.86E-10	8.95E-07	1.05E-06	1%
15	5	Surface	Uranium-238	1.03E+01	4.50E-06		1.46E-08	4.14E-06	8.66E-06	6%
15	**5**	**Surface**	**Totals**		**8.44E-05**	**6.36E-05**	**1.71E-08**	**7.03E-06**	**1.55E-04**	
15	**5**	**Surface**	**Percent**		**54%**	**41%**	**0%**	**5%**		
15	6	Surface	Arsenic	1.24E+01	2.03E-05	4.39E-06	5.20E-12		2.46E-05	26%
15	6	Surface	Cadmium	1.64E+01			2.86E-12		2.86E-12	0%
15	6	Surface	Chromium	8.25E+01			6.74E-10		6.74E-10	0%
15	6	Surface	Cobalt	1.62E+01			1.42E-11		1.42E-11	0%
15	6	Surface	Neptunium-237	6.40E-01	2.00E-07		1.10E-09	1.85E-06	2.05E-06	2%
15	6	Surface	Nickel	3.00E+02			7.60E-12		7.60E-12	0%
15	6	Surface	PAH, Total	1.62E+00	1.29E-05	1.21E-05	1.74E-13		2.50E-05	26%
15	6	Surface	PCB, Total	6.17E+00	1.34E-05	1.36E-05	3.43E-13		2.69E-05	28%
15	6	Surface	Uranium-234	8.74E+00	2.87E-06		1.45E-08	7.47E-09	2.89E-06	3%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.38. ELCR for the Outdoor Worker Exposed to Surface Soils (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
15	6	Surface	Uranium-235	5.70E-01	1.95E-07		8.50E-10	1.11E-06	1.31E-06	1%
15	6	Surface	Uranium-238	1.54E+01	6.74E-06		2.18E-08	6.19E-06	1.29E-05	13%
15	**6**	**Surface**	**Totals**		**5.65E-05**	**3.00E-05**	**3.89E-08**	**9.16E-06**	**9.57E-05**	
15	**6**	**Surface**	**Percent**		**59%**	**31%**	**0%**	**10%**		
15	7	Surface	Arsenic	1.61E+01	2.62E-05	5.68E-06	6.73E-12		3.19E-05	20%
15	7	Surface	Cadmium	1.80E+01			3.15E-12		3.15E-12	0%
15	7	Surface	Chromium	7.97E+01			6.51E-10		6.51E-10	0%
15	7	Surface	Nickel	5.59E+02			1.41E-11		1.41E-11	0%
15	7	Surface	PAH, Total	1.59E-01	1.26E-06	1.18E-06	1.70E-14		2.44E-06	2%
15	7	Surface	PCB, Total	2.57E+01	5.58E-05	5.64E-05	1.43E-12		1.12E-04	72%
15	7	Surface	Uranium-234	6.49E+00	2.13E-06		1.08E-08	5.55E-09	2.15E-06	1%
15	7	Surface	Uranium-235	4.50E-01	1.54E-07		6.71E-10	8.76E-07	1.03E-06	1%
15	7	Surface	Uranium-238	8.05E+00	3.52E-06		1.14E-08	3.24E-06	6.77E-06	4%
15	**7**	**Surface**	**Totals**		**8.90E-05**	**6.33E-05**	**2.35E-08**	**4.12E-06**	**1.56E-04**	
15	**7**	**Surface**	**Percent**		**57%**	**40%**	**0%**	**3%**		
15	8	Surface	Arsenic	1.17E+01	1.90E-05	4.12E-06	4.88E-12		2.31E-05	40%
15	8	Surface	Cadmium	1.68E+01			2.95E-12		2.95E-12	0%
15	8	Surface	Chromium	7.74E+01			6.33E-10		6.33E-10	0%
15	8	Surface	Neptunium-237	3.65E-01	1.14E-07		6.25E-10	1.05E-06	1.17E-06	2%
15	8	Surface	Nickel	1.82E+02			4.60E-12		4.60E-12	0%
15	8	Surface	PAH, Total	3.59E-01	2.84E-06	2.67E-06	3.84E-14		5.52E-06	10%
15	8	Surface	PCB, Total	5.01E+00	1.09E-05	1.10E-05	2.78E-13		2.19E-05	38%
15	8	Surface	Uranium-238	6.64E+00	2.90E-06		9.39E-09	2.67E-06	5.58E-06	10%
15	**8**	**Surface**	**Totals**		**3.57E-05**	**1.78E-05**	**1.07E-08**	**3.72E-06**	**5.73E-05**	
15	**8**	**Surface**	**Percent**		**62%**	**31%**	**0%**	**7%**		
15	9	Surface	Arsenic	1.10E+01	1.80E-05	3.90E-06	4.62E-12		2.19E-05	37%
15	9	Surface	Cadmium	1.81E+01			3.17E-12		3.17E-12	0%
15	9	Surface	Chromium	9.56E+01			7.82E-10		7.82E-10	0%
15	9	Surface	Nickel	1.49E+02			3.77E-12		3.77E-12	0%
15	9	Surface	PAH, Total	2.38E-01	1.89E-06	1.78E-06	2.55E-14		3.67E-06	6%
15	9	Surface	PCB, Total	6.31E+00	1.37E-05	1.39E-05	3.50E-13		2.76E-05	47%
15	9	Surface	Uranium-238	7.12E+00	3.11E-06		1.01E-08	2.86E-06	5.99E-06	10%
15	**9**	**Surface**	**Totals**		**3.67E-05**	**1.95E-05**	**1.09E-08**	**2.86E-06**	**5.92E-05**	
15	**9**	**Surface**	**Percent**		**62%**	**33%**	**0%**	**5%**		
15	10	Surface	Cadmium	1.67E+01			2.93E-12		2.93E-12	0%
15	10	Surface	Chromium	3.55E+01			2.90E-10		2.90E-10	0%
15	10	Surface	Nickel	2.26E+02			5.73E-12		5.73E-12	0%
15	10	Surface	PAH, Total	1.28E-01	1.02E-06	9.57E-07	1.38E-14		1.98E-06	100%
15	**10**	**Surface**	**Totals**		**1.02E-06**	**9.57E-07**	**2.99E-10**		**1.98E-06**	
15	**10**	**Surface**	**Percent**		**52%**	**48%**	**0%**			
26	1	Surface	Chromium	1.67E+01			1.37E-10		1.37E-10	0%
26	1	Surface	PAH, Total	1.97E-01	1.56E-06	1.47E-06	2.11E-14		3.03E-06	3%
26	1	Surface	PCB, Total	9.40E+00	2.04E-05	2.07E-05	5.22E-13		4.11E-05	39%
26	1	Surface	Uranium-234	7.78E+00	2.56E-06		1.29E-08	6.65E-09	2.58E-06	2%
26	1	Surface	Uranium-235	1.23E+00	4.21E-07		1.84E-09	2.40E-06	2.82E-06	3%
26	1	Surface	Uranium-238	6.75E+01	2.95E-05		9.55E-08	2.71E-05	5.68E-05	53%
26	**1**	**Surface**	**Totals**		**5.45E-05**	**2.21E-05**	**1.10E-07**	**2.96E-05**	**1.06E-04**	
26	**1**	**Surface**	**Percent**		**51%**	**21%**	**0%**	**28%**		
26	2	Surface	Arsenic	4.23E+01	6.89E-05	1.49E-05	1.77E-11		8.38E-05	37%
26	2	Surface	Beryllium	1.13E+01			2.63E-12		2.63E-12	0%
26	2	Surface	Cesium-137	9.52E+00	6.85E-07		4.84E-11	6.19E-05	6.26E-05	28%
26	2	Surface	Chromium	4.12E+01			3.37E-10		3.37E-10	0%
26	2	Surface	Cobalt	6.59E+01			5.77E-11		5.77E-11	0%
26	2	Surface	Neptunium-237	2.15E-01	6.73E-08		3.68E-10	6.21E-07	6.89E-07	0%
26	2	Surface	Nickel	1.03E+02			2.60E-12		2.60E-12	0%
26	2	Surface	PCB, Total	3.25E+00	7.06E-06	7.15E-06	1.81E-13		1.42E-05	6%
26	2	Surface	Radium-228	1.69E+00	2.34E-06		1.39E-09	7.26E-06	9.59E-06	4%
26	2	Surface	Thorium-230	3.59E+00	1.32E-06		7.31E-09	1.03E-08	1.34E-06	1%
26	2	Surface	Uranium-234	1.98E+01	6.50E-06		3.28E-08	1.69E-08	6.55E-06	3%
26	2	Surface	Uranium-235	2.36E+00	8.07E-07		3.52E-09	4.59E-06	5.40E-06	2%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.38. ELCR for the Outdoor Worker Exposed to Surface Soils (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
26	2	Surface	Uranium-238	5.01E+01	2.19E-05		7.08E-08	2.01E-05	4.21E-05	19%
26	**2**	**Surface**	**Totals**		**1.10E-04**	**2.21E-05**	**1.17E-07**	**9.45E-05**	**2.26E-04**	
26	**2**	**Surface**	**Percent**		**48%**	**10%**	**0%**	**42%**		
26	3	Surface	Arsenic	7.56E+01	1.23E-04	2.67E-05	3.16E-11		1.50E-04	64%
26	3	Surface	Cesium-137	4.51E+00	3.25E-07		2.29E-11	2.93E-05	2.97E-05	13%
26	3	Surface	Chromium	4.56E+01			3.72E-10		3.72E-10	0%
26	3	Surface	Neptunium-237	3.70E-01	1.16E-07		6.34E-10	1.07E-06	1.19E-06	1%
26	3	Surface	PAH, Total	3.30E-01	2.62E-06	2.46E-06	3.53E-14		5.08E-06	2%
26	3	Surface	PCB, Total	8.91E+00	1.94E-05	1.96E-05	4.95E-13		3.89E-05	17%
26	3	Surface	Uranium-234	5.02E+00	1.65E-06		8.32E-09	4.29E-09	1.66E-06	1%
26	3	Surface	Uranium-235	3.15E-01	1.08E-07		4.70E-10	6.13E-07	7.21E-07	0%
26	3	Surface	Uranium-238	7.00E+00	3.06E-06		9.90E-09	2.81E-06	5.88E-06	3%
26	**3**	**Surface**	**Totals**		**1.50E-04**	**4.87E-05**	**1.98E-08**	**3.38E-05**	**2.33E-04**	
26	**3**	**Surface**	**Percent**		**65%**	**21%**	**0%**	**15%**		
26	4	Surface	Arsenic	6.01E+01	9.79E-05	2.12E-05	2.52E-11		1.19E-04	11%
26	4	Surface	Cesium-137	1.02E+00	7.36E-08		5.20E-12	6.65E-06	6.72E-06	1%
26	4	Surface	Chromium	1.14E+02			9.34E-10		9.34E-10	0%
26	4	Surface	Neptunium-237	2.80E+00	8.75E-07		4.79E-09	8.07E-06	8.95E-06	1%
26	4	Surface	Nickel	8.10E+01			2.05E-12		2.05E-12	0%
26	4	Surface	PAH, Total	5.53E+00	4.38E-05	4.12E-05	5.92E-13		8.50E-05	8%
26	4	Surface	PCB, Total	7.95E+00	1.73E-05	1.75E-05	4.42E-13		3.48E-05	3%
26	4	Surface	Plutonium-239/240	1.35E+01	6.84E-06		4.47E-08	9.54E-09	6.89E-06	1%
26	4	Surface	Technetium-99	8.36E+02	1.35E-05		1.90E-09	2.34E-07	1.37E-05	1%
26	4	Surface	Thorium-230	5.48E+01	2.02E-05		1.11E-07	1.56E-07	2.04E-05	2%
26	4	Surface	Uranium-234	2.15E+02	7.08E-05		3.57E-07	1.84E-07	7.13E-05	6%
26	4	Surface	Uranium-235	1.52E+01	5.18E-06		2.26E-08	2.95E-05	3.47E-05	3%
26	4	Surface	Uranium-238	8.49E+02	3.71E-04		1.20E-06	3.42E-04	7.14E-04	64%
26	**4**	**Surface**	**Totals**		**6.48E-04**	**7.99E-05**	**1.75E-06**	**3.86E-04**	**1.12E-03**	
26	**4**	**Surface**	**Percent**		**58%**	**7%**	**0%**	**35%**		
77	1	Surface	Chromium	8.30E+01			6.79E-10		6.79E-10	0%
77	1	Surface	PAH, Total	7.02E-02	5.57E-07	5.23E-07	7.52E-15		1.08E-06	3%
77	1	Surface	PCB, Total	5.00E+00	1.09E-05	1.10E-05	2.78E-13		2.19E-05	55%
77	1	Surface	Thorium-230	1.03E+01	3.80E-06		2.10E-08	2.94E-08	3.85E-06	10%
77	1	Surface	Uranium-238	1.53E+01	6.69E-06		2.16E-08	6.15E-06	1.29E-05	33%
77	**1**	**Surface**	**Totals**		**2.19E-05**	**1.15E-05**	**4.33E-08**	**6.18E-06**	**3.97E-05**	
77	**1**	**Surface**	**Percent**		**55%**	**29%**	**0%**	**16%**		
80	1	Surface	Dioxins/Furans, Total	8.82E-05	1.25E-05	2.70E-06	3.26E-13		1.52E-05	3%
80	1	Surface	PCB, Total	1.20E+02	2.61E-04	2.64E-04	6.67E-12		5.24E-04	97%
80	**1**	**Surface**	**Totals**		**2.73E-04**	**2.67E-04**	**6.99E-12**		**5.39E-04**	
80	**1**	**Surface**	**Percent**		**51%**	**49%**	**0%**			
80	2	Surface	Americium-241	6.40E+00	2.56E-06		1.41E-08	5.87E-07	3.16E-06	0%
80	2	Surface	Cesium-137	8.40E-01	6.04E-08		4.27E-12	5.46E-06	5.52E-06	0%
80	2	Surface	Chromium	1.65E+02			1.35E-09		1.35E-09	0%
80	2	Surface	Cobalt	1.90E+01			1.66E-11		1.66E-11	0%
80	2	Surface	Neptunium-237	5.05E-01	1.58E-07		8.65E-10	1.46E-06	1.62E-06	0%
80	2	Surface	PAH, Total	7.21E-01	5.72E-06	5.38E-06	7.72E-14		1.11E-05	1%
80	2	Surface	PCB, Total	1.26E+01	2.74E-05	2.77E-05	7.00E-13		5.51E-05	3%
80	2	Surface	Uranium-234	2.29E+02	7.52E-05		3.80E-07	1.96E-07	7.58E-05	4%
80	2	Surface	Uranium-235	3.00E+01	1.03E-05		4.48E-08	5.84E-05	6.87E-05	4%
80	2	Surface	Uranium-238	1.92E+03	8.40E-04		2.72E-06	7.72E-04	1.62E-03	88%
80	**2**	**Surface**	**Totals**		**9.61E-04**	**3.31E-05**	**3.16E-06**	**8.39E-04**	**1.84E-03**	
80	**2**	**Surface**	**Percent**		**52%**	**2%**	**0%**	**46%**		
80	3	Surface	Chromium	1.81E+01			1.48E-10		1.48E-10	0%
80	3	Surface	PCB, Total	5.66E+02	1.23E-03	1.24E-03	3.15E-11		2.47E-03	100%
80	3	Surface	Uranium-238	1.59E+00	6.95E-07		2.25E-09	6.39E-07	1.34E-06	0%
80	**3**	**Surface**	**Totals**		**1.23E-03**	**1.24E-03**	**2.43E-09**	**6.39E-07**	**2.47E-03**	
80	**3**	**Surface**	**Percent**		**50%**	**50%**	**0%**	**0%**		
204	1	Surface	Chromium	1.42E+01			1.16E-10		1.16E-10	0%
204	1	Surface	PAH, Total	4.93E-01	3.91E-06	3.67E-06	5.28E-14		7.58E-06	88%
204	1	Surface	Uranium-238	1.27E+00	5.57E-07		1.80E-09	5.12E-07	1.07E-06	12%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.38. ELCR for the Outdoor Worker Exposed to Surface Soils (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
204	**1**	**Surface**	**Totals**		**4.47E-06**	**3.67E-06**	**1.92E-09**	**5.12E-07**	**8.65E-06**	
204	**1**	**Surface**	**Percent**		**52%**	**42%**	**0%**	**6%**		
204	2	Surface	Arsenic	4.59E+01	7.48E-05	1.62E-05	1.92E-11		9.10E-05	96%
204	2	Surface	Chromium	1.84E+01			1.50E-10		1.50E-10	0%
204	2	Surface	PAH, Total	6.20E-02	4.92E-07	4.62E-07	6.64E-15		9.54E-07	1%
204	2	Surface	Uranium-238	3.92E+00	1.71E-06		5.54E-09	1.58E-06	3.30E-06	3%
204	**2**	**Surface**	**Totals**		**7.70E-05**	**1.67E-05**	**5.71E-09**	**1.58E-06**	**9.53E-05**	
204	**2**	**Surface**	**Percent**		**81%**	**18%**	**0%**	**2%**		
204	3	Surface	Chromium	1.80E+01			1.47E-10		1.47E-10	0%
204	3	Surface	PAH, Total	3.52E-02	2.79E-07	2.62E-07	3.77E-15		5.41E-07	22%
204	3	Surface	Uranium-238	2.31E+00	1.01E-06		3.27E-09	9.29E-07	1.94E-06	78%
204	**3**	**Surface**	**Totals**		**1.29E-06**	**2.62E-07**	**3.41E-09**	**9.29E-07**	**2.48E-06**	
204	**3**	**Surface**	**Percent**		**52%**	**11%**	**0%**	**37%**		
204	4	Surface	PAH, Total	2.33E-02	1.85E-07	1.74E-07	2.49E-15		3.58E-07	19%
204	4	Surface	Uranium-238	1.82E+00	7.96E-07		2.57E-09	7.32E-07	1.53E-06	81%
204	**4**	**Surface**	**Totals**		**9.81E-07**	**1.74E-07**	**2.57E-09**	**7.32E-07**	**1.89E-06**	
204	**4**	**Surface**	**Percent**		**52%**	**9%**	**0%**	**39%**		
204	5	Surface	Arsenic	5.67E+01	9.24E-05	2.00E-05	2.37E-11		1.12E-04	95%
204	5	Surface	Chromium	1.61E+01			1.31E-10		1.31E-10	0%
204	5	Surface	PAH, Total	2.04E-02	1.62E-07	1.52E-07	2.18E-15		3.14E-07	0%
204	5	Surface	Uranium-238	5.65E+00	2.47E-06		7.99E-09	2.27E-06	4.75E-06	4%
204	**5**	**Surface**	**Totals**		**9.51E-05**	**2.02E-05**	**8.14E-09**	**2.27E-06**	**1.17E-04**	
204	**5**	**Surface**	**Percent**		**81%**	**17%**	**0%**	**2%**		
204	6	Surface	PAH, Total	3.25E-02	2.58E-07	2.42E-07	3.48E-15		5.00E-07	14%
204	6	Surface	Uranium-238	3.63E+00	1.59E-06		5.13E-09	1.46E-06	3.05E-06	86%
204	**6**	**Surface**	**Totals**		**1.85E-06**	**2.42E-07**	**5.13E-09**	**1.46E-06**	**3.55E-06**	
204	**6**	**Surface**	**Percent**		**52%**	**7%**	**0%**	**41%**		
204	7	Surface	PAH, Total	9.68E-03	7.67E-08	7.21E-08	1.04E-15		1.49E-07	8%
204	7	Surface	Uranium-238	2.04E+00	8.92E-07		2.89E-09	8.20E-07	1.72E-06	92%
204	**7**	**Surface**	**Totals**		**9.69E-07**	**7.21E-08**	**2.89E-09**	**8.20E-07**	**1.87E-06**	
204	**7**	**Surface**	**Percent**		**52%**	**4%**	**0%**	**44%**		
204	8	Surface	Chromium	1.70E+01			1.39E-10		1.39E-10	0%
204	8	Surface	Cobalt	1.40E+01			1.23E-11		1.23E-11	0%
204	8	Surface	PAH, Total	7.37E-02	5.84E-07	5.49E-07	7.88E-15		1.13E-06	40%
204	8	Surface	Uranium-238	2.01E+00	8.79E-07		2.84E-09	8.08E-07	1.69E-06	60%
204	**8**	**Surface**	**Totals**		**1.46E-06**	**5.49E-07**	**2.99E-09**	**8.08E-07**	**2.82E-06**	
204	**8**	**Surface**	**Percent**		**52%**	**19%**	**0%**	**29%**		
204	9	Surface	Chromium	1.80E+01			1.47E-10		1.47E-10	0%
204	9	Surface	PAH, Total	5.01E+00	3.97E-05	3.73E-05	5.36E-13		7.70E-05	98%
204	9	Surface	Uranium-238	2.22E+00	9.71E-07		3.14E-09	8.93E-07	1.87E-06	2%
204	**9**	**Surface**	**Totals**		**4.07E-05**	**3.73E-05**	**3.29E-09**	**8.93E-07**	**7.89E-05**	
204	**9**	**Surface**	**Percent**		**52%**	**47%**	**0%**	**1%**		
204	10	Surface	PAH, Total	6.42E-02	5.09E-07	4.78E-07	6.87E-15		9.87E-07	27%
204	10	Surface	Uranium-238	3.15E+00	1.38E-06		4.46E-09	1.27E-06	2.65E-06	73%
204	**10**	**Surface**	**Totals**		**1.89E-06**	**4.78E-07**	**4.46E-09**	**1.27E-06**	**3.64E-06**	
204	**10**	**Surface**	**Percent**		**52%**	**13%**	**0%**	**35%**		
204	11	Surface	PAH, Total	8.95E-02	7.10E-07	6.67E-07	9.58E-15		1.38E-06	35%
204	11	Surface	Uranium-238	3.09E+00	1.35E-06		4.37E-09	1.24E-06	2.60E-06	65%
204	**11**	**Surface**	**Totals**		**2.06E-06**	**6.67E-07**	**4.37E-09**	**1.24E-06**	**3.98E-06**	
204	**11**	**Surface**	**Percent**		**52%**	**17%**	**0%**	**31%**		
204	12	Surface	PAH, Total	6.43E-02	5.10E-07	4.79E-07	6.88E-15		9.89E-07	27%
204	12	Surface	Uranium-238	3.26E+00	1.43E-06		4.61E-09	1.31E-06	2.74E-06	73%
204	**12**	**Surface**	**Totals**		**1.94E-06**	**4.79E-07**	**4.61E-09**	**1.31E-06**	**3.73E-06**	
204	**12**	**Surface**	**Percent**		**52%**	**13%**	**0%**	**35%**		
204	13	Surface	Chromium	1.70E+01			1.39E-10		1.39E-10	0%
204	13	Surface	PAH, Total	5.05E-01	4.00E-06	3.76E-06	5.41E-14		7.77E-06	76%
204	13	Surface	Uranium-238	2.98E+00	1.30E-06		4.21E-09	1.20E-06	2.51E-06	24%
204	**13**	**Surface**	**Totals**		**5.31E-06**	**3.76E-06**	**4.35E-09**	**1.20E-06**	**1.03E-05**	
204	**13**	**Surface**	**Percent**		**52%**	**37%**	**0%**	**12%**		
204	14	Surface	Arsenic	1.36E+02	2.22E-04	4.81E-05	5.69E-11		2.70E-04	98%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.38. ELCR for the Outdoor Worker Exposed to Surface Soils (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
204	14	Surface	Chromium	1.70E+01			1.39E-10		1.39E-10	0%
204	14	Surface	PAH, Total	1.28E-01	1.01E-06	9.51E-07	1.37E-14		1.96E-06	1%
204	14	Surface	Uranium-238	4.25E+00	1.86E-06		6.01E-09	1.71E-06	3.57E-06	1%
204	**14**	**Surface**	**Totals**		**2.24E-04**	**4.90E-05**	**6.21E-09**	**1.71E-06**	**2.76E-04**	
204	**14**	**Surface**	**Percent**		**82%**	**18%**	**0%**	**1%**		
204	15	Surface	Cesium-137	6.30E-01	4.53E-08		3.20E-12	4.10E-06	4.14E-06	47%
204	15	Surface	PAH, Total	1.25E-02	9.88E-08	9.28E-08	1.33E-15		1.92E-07	2%
204	15	Surface	Uranium-238	5.37E+00	2.35E-06		7.60E-09	2.16E-06	4.52E-06	51%
204	**15**	**Surface**	**Totals**		**2.49E-06**	**9.28E-08**	**7.60E-09**	**6.26E-06**	**8.85E-06**	
204	**15**	**Surface**	**Percent**		**28%**	**1%**	**0%**	**71%**		
204	16	Surface	PAH, Total	1.45E-02	1.15E-07	1.08E-07	1.55E-15		2.23E-07	100%
204	**16**	**Surface**	**Totals**		**1.15E-07**	**1.08E-07**	**1.55E-15**		**2.23E-07**	
204	**16**	**Surface**	**Percent**		**52%**	**48%**	**0%**			
204	17	Surface	PAH, Total	5.99E-02	4.75E-07	4.46E-07	6.41E-15		9.21E-07	30%
204	17	Surface	Uranium-238	2.50E+00	1.09E-06		3.54E-09	1.01E-06	2.10E-06	69%
204	**17**	**Surface**	**Totals**		**1.57E-06**	**4.46E-07**	**3.54E-09**	**1.01E-06**	**3.02E-06**	
204	**17**	**Surface**	**Percent**		**52%**	**15%**	**0%**	**33%**		
204	18	Surface	PAH, Total	7.04E-03	5.58E-08	5.25E-08	7.54E-16		1.08E-07	7%
204	18	Surface	Uranium-238	1.81E+00	7.92E-07		2.56E-09	7.28E-07	1.52E-06	93%
204	**18**	**Surface**	**Totals**		**8.47E-07**	**5.25E-08**	**2.56E-09**	**7.28E-07**	**1.63E-06**	
204	**18**	**Surface**	**Percent**		**52%**	**3%**	**0%**	**45%**		
204	19	Surface	PAH, Total	1.30E-01	1.03E-06	9.66E-07	1.39E-14		1.99E-06	47%
204	19	Surface	Uranium-238	2.65E+00	1.16E-06		3.75E-09	1.07E-06	2.23E-06	53%
204	**19**	**Surface**	**Totals**		**2.19E-06**	**9.66E-07**	**3.75E-09**	**1.07E-06**	**4.22E-06**	
204	**19**	**Surface**	**Percent**		**52%**	**23%**	**0%**	**25%**		
204	20	Surface	Americium-241	3.71E+00	1.49E-06		8.18E-09	3.40E-07	1.83E-06	0%
204	20	Surface	Cesium-137	1.17E+00	8.43E-08		5.96E-12	7.62E-06	7.70E-06	0%
204	20	Surface	Chromium	1.75E+02			1.43E-09		1.43E-09	0%
204	20	Surface	PCB, Total	7.90E+01	1.72E-04	1.74E-04	4.39E-12		3.45E-04	8%
204	20	Surface	Protactinium-231	3.65E+01	2.41E-05		1.66E-07	1.56E-05	3.99E-05	1%
204	20	Surface	Uranium-234	4.45E+02	1.46E-04		7.38E-07	3.80E-07	1.47E-04	3%
204	20	Surface	Uranium-235	5.70E+01	1.95E-05		8.50E-08	1.11E-04	1.31E-04	3%
204	20	Surface	Uranium-238	4.39E+03	1.92E-03		6.20E-06	1.76E-03	3.69E-03	85%
204	**20**	**Surface**	**Totals**		**2.28E-03**	**1.74E-04**	**7.20E-06**	**1.90E-03**	**4.36E-03**	
204	**20**	**Surface**	**Percent**		**52%**	**4%**	**0%**	**44%**		
204	21	Surface	Cobalt	1.80E+01			1.58E-11		1.58E-11	100%
204	**21**	**Surface**	**Totals**				**1.58E-11**		**1.58E-11**	
204	**21**	**Surface**	**Percent**				**1.00E+00**			
211	1	Surface	Cesium-137	1.67E+00	1.20E-07		8.49E-12	1.09E-05	1.10E-05	7%
211	1	Surface	Chromium	4.48E+01			3.66E-10		3.66E-10	0%
211	1	Surface	Neptunium-237	5.93E+00	1.86E-06		1.02E-08	1.71E-05	1.90E-05	12%
211	1	Surface	PAH, Total	1.04E-01	8.23E-07	7.73E-07	1.11E-14		1.60E-06	1%
211	1	Surface	PCB, Total	3.60E-01	7.82E-07	7.91E-07	2.00E-14		1.57E-06	1%
211	1	Surface	Uranium-234	6.69E+01	2.20E-05		1.11E-07	5.72E-08	2.21E-05	14%
211	1	Surface	Uranium-238	1.19E+02	5.20E-05		1.68E-07	4.78E-05	1.00E-04	64%
211	**1**	**Surface**	**Totals**		**7.76E-05**	**1.56E-06**	**2.90E-07**	**7.59E-05**	**1.55E-04**	
211	**1**	**Surface**	**Percent**		**5.00E-01**	**1.01E-02**	**1.87E-03**	**4.89E-01**		
224	1	Surface	PAH, Total	5.95E-01	4.72E-06	4.44E-06	6.37E-14		9.16E-06	44%
224	1	Surface	Uranium-238	1.39E+01	6.08E-06		1.97E-08	5.59E-06	1.17E-05	56%
224	**1**	**Surface**	**Totals**		**1.08E-05**	**4.44E-06**	**1.97E-08**	**5.59E-06**	**2.09E-05**	
224	**1**	**Surface**	**Percent**		**5.18E-01**	**2.13E-01**	**9.43E-04**	**2.68E-01**		
225	1	Surface	Chromium	2.55E+01			2.08E-10		2.08E-10	0%
225	1	Surface	PAH, Total	7.79E-02	6.17E-07	5.80E-07	8.33E-15		1.20E-06	41%
225	1	Surface	Uranium-238	2.04E+00	8.92E-07		2.89E-09	8.20E-07	1.72E-06	59%
225	**1**	**Surface**	**Totals**		**1.51E-06**	**5.80E-07**	**3.09E-09**	**8.20E-07**	**2.92E-06**	
225	**1**	**Surface**	**Percent**		**5.18E-01**	**1.99E-01**	**1.06E-03**	**2.82E-01**		

The percentages listed throughout this table under the "Percent" column represent the percent contributions for each COPC to the Total ELCR.

The percentages listed in the row beneath "Totals" represent the percent contributions for each pathway to the Total ELCR.

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.39. ELCR for the Outdoor Worker Exposed to Surface and Subsurface Soils

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
13	1	Subsurface	PCB, Total	9.42E+00	2.05E-05	2.07E-05	5.23E-13		4.12E-05	98%
13	1	Subsurface	Uranium-238	1.20E+00	5.26E-07		1.70E-09	4.84E-07	1.01E-06	2%
13	**1**	**Subsurface**	**Totals**		**2.10E-05**	**2.07E-05**	**1.70E-09**	**4.84E-07**	**4.22E-05**	
13	**1**	**Subsurface**	**Percent**		**50%**	**49%**	**0%**	**1%**		
13	2	Subsurface	Arsenic	1.04E+01	1.69E-05	3.67E-06	4.35E-12		2.06E-05	96%
13	2	Subsurface	Uranium-238	9.95E-01	4.35E-07		1.41E-09	4.00E-07	8.37E-07	4%
13	**2**	**Subsurface**	**Totals**		**1.74E-05**	**3.67E-06**	**1.41E-09**	**4.00E-07**	**2.14E-05**	
13	**2**	**Subsurface**	**Percent**		**81%**	**17%**	**0%**	**2%**		
13	3	Subsurface	PAH, Total	4.93E-01	3.91E-06	3.67E-06	5.28E-14		7.58E-06	100%
13	**3**	**Subsurface**	**Totals**		**3.91E-06**	**3.67E-06**	**5.28E-14**		**7.58E-06**	
13	**3**	**Subsurface**	**Percent**		**52%**	**48%**	**0%**			
13	4	Subsurface	Cobalt-60	8.06E-02	2.00E-09		1.43E-13	9.92E-07	9.94E-07	2%
13	4	Subsurface	PAH, Total	5.59E-01	4.43E-06	4.17E-06	5.98E-14		8.60E-06	14%
13	4	Subsurface	PCB, Total	1.09E+01	2.37E-05	2.40E-05	6.06E-13		4.77E-05	79%
13	4	Subsurface	Uranium-238	3.27E+00	1.43E-06		4.62E-09	1.31E-06	2.75E-06	5%
13	**4**	**Subsurface**	**Totals**		**2.96E-05**	**2.82E-05**	**4.62E-09**	**2.31E-06**	**6.00E-05**	
13	**4**	**Subsurface**	**Percent**		**49%**	**47%**	**0%**	**4%**		
13	5	Subsurface	Cesium-137	3.52E-01	2.53E-08		1.79E-12	2.29E-06	2.31E-06	2%
13	5	Subsurface	Chromium	9.37E+01			7.66E-10		7.66E-10	0%
13	5	Subsurface	Neptunium-237	3.60E-01	1.13E-07		6.17E-10	1.04E-06	1.15E-06	1%
13	5	Subsurface	PAH, Total	5.43E-01	4.31E-06	4.05E-06	5.81E-14		8.35E-06	8%
13	5	Subsurface	PCB, Total	1.03E+01	2.24E-05	2.27E-05	5.73E-13		4.51E-05	44%
13	5	Subsurface	Technetium-99	9.19E+01	1.48E-06		2.09E-10	2.57E-08	1.51E-06	1%
13	5	Subsurface	Uranium-234	2.02E+01	6.62E-06		3.34E-08	1.72E-08	6.67E-06	6%
13	5	Subsurface	Uranium-235	2.73E+00	9.33E-07		4.07E-09	5.31E-06	6.25E-06	6%
13	5	Subsurface	Uranium-238	3.77E+01	1.65E-05		5.34E-08	1.52E-05	3.17E-05	31%
13	**5**	**Subsurface**	**Totals**		**5.24E-05**	**2.67E-05**	**9.25E-08**	**2.39E-05**	**1.03E-04**	
13	**5**	**Subsurface**	**Percent**		**51%**	**26%**	**0%**	**23%**		
13	6	Subsurface	Cadmium	4.68E+00			8.20E-13		8.20E-13	0%
13	6	Subsurface	Cesium-137	2.02E-01	1.45E-08		1.03E-12	1.31E-06	1.33E-06	2%
13	6	Subsurface	Neptunium-237	6.23E-01	1.95E-07		1.07E-09	1.80E-06	2.00E-06	2%
13	6	Subsurface	PAH, Total	8.43E-01	6.68E-06	6.28E-06	9.02E-14		1.30E-05	16%
13	6	Subsurface	PCB, Total	7.04E+00	1.53E-05	1.55E-05	3.91E-13		3.07E-05	37%
13	6	Subsurface	Technetium-99	8.38E+01	1.35E-06		1.90E-10	2.34E-08	1.37E-06	2%
13	6	Subsurface	Uranium-234	1.55E+01	5.10E-06		2.57E-08	1.33E-08	5.13E-06	6%
13	6	Subsurface	Uranium-235	1.16E+00	3.97E-07		1.73E-09	2.26E-06	2.66E-06	3%
13	6	Subsurface	Uranium-238	3.25E+01	1.42E-05		4.59E-08	1.31E-05	2.73E-05	33%
13	**6**	**Subsurface**	**Totals**		**4.32E-05**	**2.17E-05**	**7.47E-08**	**1.85E-05**	**8.35E-05**	
13	**6**	**Subsurface**	**Percent**		**52%**	**26%**	**0%**	**22%**		
13	7	Subsurface	PCB, Total	1.08E+01	2.35E-05	2.38E-05	6.02E-13		4.73E-05	94%
13	7	Subsurface	Uranium-238	3.69E+00	1.61E-06		5.22E-09	1.48E-06	3.10E-06	6%
13	**7**	**Subsurface**	**Totals**		**2.51E-05**	**2.38E-05**	**5.22E-09**	**1.48E-06**	**5.04E-05**	
13	**7**	**Subsurface**	**Percent**		**50%**	**47%**	**0%**	**3%**		
13	8	Subsurface	PAH, Total	5.39E-01	4.27E-06	4.02E-06	5.77E-14		8.29E-06	100%
13	**8**	**Subsurface**	**Totals**		**4.27E-06**	**4.02E-06**	**5.77E-14**		**8.29E-06**	
13	**8**	**Subsurface**	**Percent**		**52%**	**48%**	**0%**			
13	9	Subsurface	Arsenic	1.25E+01	2.03E-05	4.40E-06	5.21E-12		2.47E-05	64%
13	9	Subsurface	Cesium-137	2.64E-01	1.90E-08		1.34E-12	1.72E-06	1.74E-06	5%
13	9	Subsurface	Neptunium-237	5.15E-01	1.61E-07		8.82E-10	1.49E-06	1.65E-06	4%
13	9	Subsurface	PAH, Total	4.60E-01	3.65E-06	3.43E-06	4.92E-14		7.07E-06	18%
13	9	Subsurface	Uranium-238	3.78E+00	1.65E-06		5.34E-09	1.52E-06	3.17E-06	8%
13	**9**	**Subsurface**	**Totals**		**2.58E-05**	**7.83E-06**	**6.23E-09**	**4.72E-06**	**3.83E-05**	
13	**9**	**Subsurface**	**Percent**		**67%**	**20%**	**0%**	**12%**		
13	**10**	**Subsurface**	**Percent**							
13	11	Subsurface	PCB, Total	1.03E+01	2.27E-05	2.27E-05	5.75E-13		4.52E-05	100%
13	**11**	**Subsurface**	**Totals**		**2.25E-05**	**2.27E-05**	**5.75E-13**		**4.52E-05**	
13	**11**	**Subsurface**	**Percent**		**50%**	**50%**	**0%**			
13	12	Subsurface	PCB, Total	1.03E+01	2.24E-05	2.26E-05	5.72E-13		4.50E-05	100%
13	**12**	**Subsurface**	**Totals**		**2.24E-05**	**2.26E-05**	**5.72E-13**		**4.50E-05**	
13	**12**	**Subsurface**	**Percent**		**50%**	**50%**	**0%**			

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.39. ELCR for the Outdoor Worker Exposed to Surface and Subsurface Soils (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
13	**13**	**Subsurface**	**Percent**							
13	14	Subsurface	PAH, Total	5.41E-01	4.29E-06	4.03E-06	5.79E-14		8.32E-06	14%
13	14	Subsurface	PCB, Total	1.06E+01	2.30E-05	2.33E-05	5.88E-13		4.62E-05	80%
13	14	Subsurface	Uranium-238	3.85E+00	1.68E-06		5.44E-09	1.55E-06	3.23E-06	6%
13	**14**	**Subsurface**	**Totals**		**2.90E-05**	**2.73E-05**	**5.44E-09**	**1.55E-06**	**5.78E-05**	
13	**14**	**Subsurface**	**Percent**		**50%**	**47%**	**0%**	**3%**		
15	1	Subsurface	Arsenic	1.32E+01	2.14E-05	4.65E-06	5.51E-12		2.61E-05	56%
15	1	Subsurface	Cadmium	2.72E+01			4.76E-12		4.76E-12	0%
15	1	Subsurface	Chromium	8.29E+01			6.77E-10		6.77E-10	0%
15	1	Subsurface	Nickel	1.39E+02			3.51E-12		3.51E-12	0%
15	1	Subsurface	PAH, Total	1.16E+00	9.17E-06	8.61E-06	1.24E-13		1.78E-05	38%
15	1	Subsurface	Technetium-99	1.06E+02	1.71E-06		2.42E-10	2.97E-08	1.74E-06	4%
15	1	Subsurface	Uranium-238	1.30E+00	5.66E-07		1.83E-09	5.21E-07	1.09E-06	2%
15	**1**	**Subsurface**	**Totals**		**3.29E-05**	**1.33E-05**	**2.76E-09**	**5.50E-07**	**4.67E-05**	
15	**1**	**Subsurface**	**Percent**		**70%**	**28%**	**0%**	**1%**		
15	2	Subsurface	Arsenic	1.63E+01	2.65E-05	5.75E-06	6.80E-12		3.22E-05	40%
15	2	Subsurface	Cadmium	1.51E+01			2.65E-12		2.65E-12	0%
15	2	Subsurface	Chromium	5.90E+01			4.82E-10		4.82E-10	0%
15	2	Subsurface	Neptunium-237	5.56E-01	1.74E-07		9.52E-10	1.61E-06	1.78E-06	2%
15	2	Subsurface	Nickel	3.75E+02			9.48E-12		9.48E-12	0%
15	2	Subsurface	PAH, Total	2.11E+00	1.67E-05	1.57E-05	2.26E-13		3.24E-05	40%
15	2	Subsurface	PCB, Total	3.30E-01	7.17E-07	7.25E-07	1.83E-14		1.44E-06	2%
15	2	Subsurface	Uranium-234	6.51E+00	2.14E-06		1.08E-08	5.57E-09	2.16E-06	3%
15	2	Subsurface	Uranium-235	3.80E-01	1.30E-07		5.67E-10	7.40E-07	8.70E-07	1%
15	2	Subsurface	Uranium-238	1.21E+01	5.29E-06		1.71E-08	4.87E-06	1.02E-05	13%
15	**2**	**Subsurface**	**Totals**		**5.17E-05**	**2.22E-05**	**2.99E-08**	**7.22E-06**	**8.11E-05**	
15	**2**	**Subsurface**	**Percent**		**64%**	**27%**	**0%**	**9%**		
15	3	Subsurface	Arsenic	3.65E+01	5.95E-05	1.29E-05	1.53E-11		7.24E-05	6%
15	3	Subsurface	Cadmium	1.89E+01			3.32E-12		3.32E-12	0%
15	3	Subsurface	Chromium	8.13E+01			6.65E-10		6.65E-10	0%
15	3	Subsurface	Cobalt	2.37E+01			2.08E-11		2.08E-11	0%
15	3	Subsurface	Neptunium-237	4.06E+00	1.27E-06		6.96E-09	1.17E-05	1.30E-05	1%
15	3	Subsurface	Nickel	8.38E+02			2.12E-11		2.12E-11	0%
15	3	Subsurface	PAH, Total	9.85E-01	7.81E-06	7.34E-06	1.05E-13		1.51E-05	1%
15	3	Subsurface	PCB, Total	1.40E+01	3.03E-05	3.07E-05	7.75E-13		6.10E-05	5%
15	3	Subsurface	Technetium-99	2.08E+02	3.35E-06		4.74E-10	5.83E-08	3.41E-06	0%
15	3	Subsurface	Thorium-230	4.61E+00	1.70E-06		9.38E-09	1.32E-08	1.72E-06	0%
15	3	Subsurface	Uranium-234	1.91E+02	6.27E-05		3.16E-07	1.63E-07	6.31E-05	5%
15	3	Subsurface	Uranium-235	2.15E+01	7.34E-06		3.20E-08	4.18E-05	4.92E-05	4%
15	3	Subsurface	Uranium-238	1.08E+03	4.71E-04		1.52E-06	4.33E-04	9.05E-04	76%
15	**3**	**Subsurface**	**Totals**		**6.44E-04**	**5.09E-05**	**1.89E-06**	**4.86E-04**	**1.18E-03**	
15	**3**	**Subsurface**	**Percent**		**54%**	**4%**	**0%**	**41%**		
15	4	Subsurface	Arsenic	3.37E+01	5.49E-05	1.19E-05	1.41E-11		6.68E-05	28%
15	4	Subsurface	Cadmium	1.34E+01			2.35E-12		2.35E-12	0%
15	4	Subsurface	Chromium	8.55E+01			6.99E-10		6.99E-10	0%
15	4	Subsurface	Neptunium-237	4.33E-01	1.36E-07		7.42E-10	1.25E-06	1.39E-06	1%
15	4	Subsurface	Nickel	1.24E+03			3.14E-11		3.14E-11	0%
15	4	Subsurface	PAH, Total	1.25E+00	9.88E-06	9.28E-06	1.33E-13		1.92E-05	8%
15	4	Subsurface	PCB, Total	3.13E+01	6.80E-05	6.88E-05	1.74E-12		1.37E-04	58%
15	4	Subsurface	Uranium-234	5.74E+00	1.89E-06		9.52E-09	4.91E-09	1.90E-06	1%
15	4	Subsurface	Uranium-235	2.69E-01	9.20E-08		4.01E-10	5.24E-07	6.16E-07	0%
15	4	Subsurface	Uranium-238	9.63E+00	4.21E-06		1.36E-08	3.87E-06	8.10E-06	3%
15	**4**	**Subsurface**	**Totals**		**1.39E-04**	**9.00E-05**	**2.50E-08**	**5.65E-06**	**2.35E-04**	
15	**4**	**Subsurface**	**Percent**		**59%**	**38%**	**0%**	**2%**		
15	5	Subsurface	Arsenic	1.33E+01	2.17E-05	4.70E-06	5.56E-12		2.63E-05	11%
15	5	Subsurface	Cadmium	1.80E+01			3.16E-12		3.16E-12	0%
15	5	Subsurface	Chromium	6.58E+01			5.38E-10		5.38E-10	0%
15	5	Subsurface	Neptunium-237	5.30E-01	1.66E-07		9.08E-10	1.53E-06	1.70E-06	1%
15	5	Subsurface	Nickel	3.48E+02			8.81E-12		8.81E-12	0%
15	5	Subsurface	PAH, Total	3.31E-01	2.62E-06	2.47E-06	3.54E-14		5.09E-06	2%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.39. ELCR for the Outdoor Worker Exposed to Surface and Subsurface Soils (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
15	5	Subsurface	PCB, Total	4.64E+01	1.01E-04	1.02E-04	2.58E-12		2.03E-04	83%
15	5	Subsurface	Uranium-235	3.62E-01	1.24E-07		5.40E-10	7.05E-07	8.29E-07	0%
15	5	Subsurface	Uranium-238	8.14E+00	3.56E-06		1.15E-08	3.27E-06	6.85E-06	3%
15	**5**	**Subsurface**	**Totals**		**1.29E-04**	**1.09E-04**	**1.35E-08**	**5.51E-06**	**2.44E-04**	
15	**5**	**Subsurface**	**Percent**		**53%**	**45%**	**0%**	**2%**		
15	6	Subsurface	Arsenic	1.20E+01	1.96E-05	4.25E-06	5.03E-12		2.38E-05	28%
15	6	Subsurface	Cadmium	2.50E+01			4.39E-12		4.39E-12	0%
15	6	Subsurface	Chromium	7.97E+01			6.51E-10		6.51E-10	0%
15	6	Subsurface	Cobalt	1.13E+01			9.89E-12		9.89E-12	0%
15	6	Subsurface	Neptunium-237	4.93E-01	1.54E-07		8.44E-10	1.42E-06	1.58E-06	2%
15	6	Subsurface	Nickel	3.00E+02			7.60E-12		7.60E-12	0%
15	6	Subsurface	PAH, Total	1.25E+00	9.90E-06	9.31E-06	1.34E-13		1.92E-05	23%
15	6	Subsurface	PCB, Total	6.17E+00	1.34E-05	1.36E-05	3.43E-13		2.69E-05	32%
15	6	Subsurface	Uranium-234	6.91E+00	2.27E-06		1.15E-08	5.91E-09	2.29E-06	3%
15	6	Subsurface	Uranium-235	4.48E-01	1.53E-07		6.68E-10	8.72E-07	1.03E-06	1%
15	6	Subsurface	Uranium-238	1.21E+01	5.27E-06		1.70E-08	4.85E-06	1.01E-05	12%
15	**6**	**Subsurface**	**Totals**		**5.07E-05**	**2.71E-05**	**3.07E-08**	**7.15E-06**	**8.49E-05**	
15	**6**	**Subsurface**	**Percent**		**60%**	**32%**	**0%**	**8%**		
15	7	Subsurface	Arsenic	1.61E+01	2.63E-05	5.70E-06	6.75E-12		3.20E-05	21%
15	7	Subsurface	Cadmium	2.78E+01			4.87E-12		4.87E-12	0%
15	7	Subsurface	Chromium	6.54E+01			5.35E-10		5.35E-10	0%
15	7	Subsurface	Nickel	5.59E+02			1.41E-11		1.41E-11	0%
15	7	Subsurface	PAH, Total	1.24E-01	9.83E-07	9.24E-07	1.33E-14		1.91E-06	1%
15	7	Subsurface	PCB, Total	2.55E+01	5.55E-05	5.61E-05	1.42E-12		1.12E-04	73%
15	7	Subsurface	Uranium-234	4.27E+00	1.40E-06		7.09E-09	3.65E-09	1.41E-06	1%
15	7	Subsurface	Uranium-235	2.96E-01	1.01E-07		4.42E-10	5.76E-07	6.78E-07	0%
15	7	Subsurface	Uranium-238	6.39E+00	2.80E-06		9.04E-09	2.57E-06	5.37E-06	4%
15	**7**	**Subsurface**	**Totals**		**8.70E-05**	**6.28E-05**	**1.71E-08**	**3.15E-06**	**1.53E-04**	
15	**7**	**Subsurface**	**Percent**		**57%**	**41%**	**0%**	**2%**		
15	8	Subsurface	Arsenic	1.14E+01	1.86E-05	4.03E-06	4.78E-12		2.26E-05	38%
15	8	Subsurface	Cadmium	1.68E+01			2.95E-12		2.95E-12	0%
15	8	Subsurface	Chromium	7.53E+01			6.16E-10		6.16E-10	0%
15	8	Subsurface	Neptunium-237	2.83E-01	8.86E-08		4.85E-10	8.18E-07	9.07E-07	2%
15	8	Subsurface	Nickel	1.82E+02			4.61E-12		4.61E-12	0%
15	8	Subsurface	PAH, Total	2.80E-01	2.22E-06	2.09E-06	3.00E-14		4.31E-06	7%
15	8	Subsurface	PCB, Total	6.29E+00	1.37E-05	1.38E-05	3.49E-13		2.75E-05	47%
15	8	Subsurface	Uranium-238	4.52E+00	1.98E-06		6.39E-09	1.82E-06	3.80E-06	6%
15	**8**	**Subsurface**	**Totals**		**3.65E-05**	**1.99E-05**	**7.51E-09**	**2.64E-06**	**5.91E-05**	
15	**8**	**Subsurface**	**Percent**		**62%**	**34%**	**0%**	**4%**		
15	9	Subsurface	Arsenic	1.31E+01	2.13E-05	4.63E-06	5.48E-12		2.60E-05	43%
15	9	Subsurface	Cadmium	2.81E+01			4.92E-12		4.92E-12	0%
15	9	Subsurface	Chromium	8.92E+01			7.29E-10		7.29E-10	0%
15	9	Subsurface	Nickel	1.49E+02			3.78E-12		3.78E-12	0%
15	9	Subsurface	PAH, Total	1.85E-01	1.47E-06	1.38E-06	1.98E-14		2.85E-06	5%
15	9	Subsurface	PCB, Total	6.51E+00	1.41E-05	1.43E-05	3.62E-13		2.84E-05	46%
15	9	Subsurface	Uranium-238	4.68E+00	2.05E-06		6.62E-09	1.88E-06	3.94E-06	6%
15	**9**	**Subsurface**	**Totals**		**3.90E-05**	**2.03E-05**	**7.37E-09**	**1.88E-06**	**6.12E-05**	
15	**9**	**Subsurface**	**Percent**		**64%**	**33%**	**0%**	**3%**		
15	10	Subsurface	Arsenic	9.75E+00	1.59E-05	3.44E-06	4.08E-12		1.93E-05	91%
15	10	Subsurface	Cadmium	1.67E+01			2.93E-12		2.93E-12	0%
15	10	Subsurface	Chromium	6.29E+01			5.14E-10		5.14E-10	0%
15	10	Subsurface	Nickel	2.26E+02			5.73E-12		5.73E-12	0%
15	10	Subsurface	PAH, Total	1.28E-01	1.02E-06	9.57E-07	1.38E-14		1.98E-06	9%
15	**10**	**Subsurface**	**Totals**		**1.69E-05**	**4.40E-06**	**5.27E-10**		**2.13E-05**	
15	**10**	**Subsurface**	**Percent**		**79%**	**21%**	**0%**			
26	1	Subsurface	Arsenic	1.01E+01	1.65E-05	3.58E-06	4.24E-12		2.01E-05	17%
26	1	Subsurface	Beryllium	1.57E+01			3.67E-12		3.67E-12	0%
26	1	Subsurface	Cadmium	1.03E+01			1.81E-12		1.81E-12	0%
26	1	Subsurface	Cobalt	1.17E+01			1.02E-11		1.02E-11	0%
26	1	Subsurface	Nickel	1.21E+02			3.07E-12		3.07E-12	0%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.39. ELCR for the Outdoor Worker Exposed to Surface and Subsurface Soils (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
26	1	Subsurface	PAH, Total	2.97E-01	2.35E-06	2.21E-06	3.18E-14		4.57E-06	4%
26	1	Subsurface	PCB, Total	6.35E+00	1.38E-05	1.40E-05	3.53E-13		2.77E-05	24%
26	1	Subsurface	Uranium-234	8.04E+00	2.64E-06		1.33E-08	6.87E-09	2.66E-06	2%
26	1	Subsurface	Uranium-235	1.27E+00	4.33E-07		1.89E-09	2.47E-06	2.90E-06	2%
26	1	Subsurface	Uranium-238	6.95E+01	3.04E-05		9.82E-08	2.79E-05	5.84E-05	50%
26	**1**	**Subsurface**	**Totals**		**6.61E-05**	**1.97E-05**	**1.13E-07**	**3.04E-05**	**1.16E-04**	
26	**1**	**Subsurface**	**Percent**		**57%**	**17%**	**0%**	**26%**		
26	2	Subsurface	Arsenic	4.78E+01	7.78E-05	1.69E-05	2.00E-11		9.47E-05	39%
26	2	Subsurface	Beryllium	1.54E+01			3.59E-12		3.59E-12	0%
26	2	Subsurface	Cadmium	1.60E+01			2.80E-12		2.80E-12	0%
26	2	Subsurface	Cesium-137	8.23E+00	5.92E-07		4.18E-11	5.35E-05	5.41E-05	22%
26	2	Subsurface	Chromium	7.26E+01			5.94E-10		5.94E-10	0%
26	2	Subsurface	Cobalt	4.72E+01			4.13E-11		4.13E-11	0%
26	2	Subsurface	Neptunium-237	2.04E-01	6.39E-08		3.49E-10	5.89E-07	6.54E-07	0%
26	2	Subsurface	Nickel	1.08E+02			2.74E-12		2.74E-12	0%
26	2	Subsurface	PAH, Total	3.85E-01	3.05E-06	2.87E-06	4.12E-14		5.92E-06	2%
26	2	Subsurface	PCB, Total	8.33E+00	1.81E-05	1.83E-05	4.63E-13		3.64E-05	15%
26	2	Subsurface	Radium-228	1.69E+00	2.34E-06		1.39E-09	7.26E-06	9.59E-06	4%
26	2	Subsurface	Thorium-230	3.02E+00	1.11E-06		6.14E-09	8.61E-09	1.13E-06	0%
26	2	Subsurface	Uranium-234	1.41E+01	4.63E-06		2.34E-08	1.21E-08	4.67E-06	2%
26	2	Subsurface	Uranium-235	1.84E+00	6.28E-07		2.74E-09	3.58E-06	4.21E-06	2%
26	2	Subsurface	Uranium-238	3.92E+01	1.72E-05		5.55E-08	1.58E-05	3.30E-05	14%
26	**2**	**Subsurface**	**Totals**		**1.25E-04**	**3.81E-05**	**9.02E-08**	**8.07E-05**	**2.44E-04**	
26	**2**	**Subsurface**	**Percent**		**51%**	**16%**	**0%**	**33%**		
26	3	Subsurface	Arsenic	7.52E+01	1.22E-04	2.66E-05	3.15E-11		1.49E-04	71%
26	3	Subsurface	Cesium-137	3.38E+00	2.43E-07		1.72E-11	2.20E-05	2.22E-05	11%
26	3	Subsurface	Chromium	6.47E+01			5.29E-10		5.29E-10	0%
26	3	Subsurface	Cobalt	9.23E+00			8.09E-12		8.09E-12	0%
26	3	Subsurface	Neptunium-237	3.35E-01	1.05E-07		5.74E-10	9.68E-07	1.07E-06	1%
26	3	Subsurface	PAH, Total	3.47E-01	2.75E-06	2.59E-06	3.71E-14		5.34E-06	3%
26	3	Subsurface	PCB, Total	5.51E+00	1.20E-05	1.21E-05	3.06E-13		2.41E-05	11%
26	3	Subsurface	Pentachlorophenol	1.61E+00	6.98E-07	1.26E-06	7.98E-10		1.96E-06	1%
26	3	Subsurface	Uranium-234	3.89E+00	1.28E-06		6.45E-09	3.32E-09	1.29E-06	1%
26	3	Subsurface	Uranium-235	2.91E-01	9.95E-08		4.34E-10	5.66E-07	6.66E-07	0%
26	3	Subsurface	Uranium-238	5.86E+00	2.56E-06		8.29E-09	2.36E-06	4.93E-06	2%
26	**3**	**Subsurface**	**Totals**		**1.42E-04**	**4.25E-05**	**1.71E-08**	**2.59E-05**	**2.11E-04**	
26	**3**	**Subsurface**	**Percent**		**68%**	**20%**	**0%**	**12%**		
26	4	Subsurface	Arsenic	6.05E+01	9.85E-05	2.14E-05	2.53E-11		1.20E-04	9%
26	4	Subsurface	Cadmium	9.00E+00			1.58E-12		1.58E-12	0%
26	4	Subsurface	Cesium-137	4.69E+00	3.37E-07		2.38E-11	3.05E-05	3.08E-05	2%
26	4	Subsurface	Chromium	1.02E+02			8.33E-10		8.33E-10	0%
26	4	Subsurface	Cobalt	1.47E+01			1.28E-11		1.28E-11	0%
26	4	Subsurface	Neptunium-237	3.87E+01	1.21E-05		6.63E-08	1.12E-04	1.24E-04	9%
26	4	Subsurface	Nickel	1.21E+04			3.05E-10		3.05E-10	0%
26	4	Subsurface	PAH, Total	4.28E+00	3.40E-05	3.19E-05	4.59E-13		6.59E-05	5%
26	4	Subsurface	PCB, Total	7.96E+00	1.73E-05	1.75E-05	4.42E-13		3.48E-05	3%
26	4	Subsurface	Plutonium-239/240	1.51E+01	7.66E-06		5.01E-08	1.07E-08	7.72E-06	1%
26	4	Subsurface	Technetium-99	3.81E+03	6.13E-05		8.66E-09	1.07E-06	6.23E-05	5%
26	4	Subsurface	Thorium-230	8.68E+01	3.20E-05		1.77E-07	2.48E-07	3.24E-05	2%
26	4	Subsurface	Uranium-234	3.46E+02	1.14E-04		5.74E-07	2.96E-07	1.15E-04	9%
26	4	Subsurface	Uranium-235	2.46E+01	8.40E-06		3.66E-08	4.78E-05	5.62E-05	4%
26	4	Subsurface	Uranium-238	8.24E+02	3.60E-04		1.17E-06	3.31E-04	6.93E-04	52%
26	**4**	**Subsurface**	**Totals**		**7.46E-04**	**7.08E-05**	**2.08E-06**	**5.23E-04**	**1.34E-03**	
26	**4**	**Subsurface**	**Percent**		**56%**	**5%**	**0%**	**39%**		
77	1	Subsurface	Chromium	8.30E+01			6.79E-10		6.79E-10	0%
77	1	Subsurface	PAH, Total	7.02E-02	5.57E-07	5.23E-07	7.52E-15		1.08E-06	3%
77	1	Subsurface	PCB, Total	5.00E+00	1.09E-05	1.10E-05	2.78E-13		2.19E-05	55%
77	1	Subsurface	Thorium-230	1.03E+01	3.80E-06		2.10E-08	2.94E-08	3.85E-06	10%
77	1	Subsurface	Uranium-238	1.53E+01	6.69E-06		2.16E-08	6.15E-06	1.29E-05	33%
77	**1**	**Subsurface**	**Totals**		**2.19E-05**	**1.15E-05**	**4.33E-08**	**6.18E-06**	**3.97E-05**	

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.39. ELCR for the Outdoor Worker Exposed to Surface and Subsurface Soils (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
77	**1**	**Subsurface**	**Percent**		**55%**	**29%**	**0%**	**16%**		
80	1	Subsurface	Dioxins/Furans, Total	8.82E-05	1.25E-05	2.70E-06	3.26E-13		1.52E-05	3%
80	1	Subsurface	PCB, Total	1.20E+02	2.61E-04	2.64E-04	6.67E-12		5.24E-04	97%
80	**1**	**Subsurface**	**Totals**		**2.73E-04**	**2.67E-04**	**6.99E-12**		**5.39E-04**	
80	**1**	**Subsurface**	**Percent**		**51%**	**49%**	**0%**			
80	2	Subsurface	Americium-241	6.40E+00	2.56E-06		1.41E-08	5.87E-07	3.16E-06	0%
80	2	Subsurface	Arsenic	1.01E+01	1.64E-05	3.56E-06	4.21E-12		2.00E-05	1%
80	2	Subsurface	Cesium-137	8.40E-01	6.04E-08		4.27E-12	5.46E-06	5.52E-06	0%
80	2	Subsurface	Chromium	1.65E+02			1.35E-09		1.35E-09	0%
80	2	Subsurface	Cobalt	1.90E+01			1.66E-11		1.66E-11	0%
80	2	Subsurface	Neptunium-237	5.05E-01	1.58E-07		8.65E-10	1.46E-06	1.62E-06	0%
80	2	Subsurface	PAH, Total	7.21E-01	5.72E-06	5.38E-06	7.72E-14		1.11E-05	1%
80	2	Subsurface	PCB, Total	1.26E+01	2.74E-05	2.77E-05	7.00E-13		5.51E-05	3%
80	2	Subsurface	Uranium-234	2.29E+02	7.52E-05		3.80E-07	1.96E-07	7.58E-05	4%
80	2	Subsurface	Uranium-235	3.00E+01	1.03E-05		4.48E-08	5.84E-05	6.87E-05	4%
80	2	Subsurface	Uranium-238	1.92E+03	8.40E-04		2.72E-06	7.72E-04	1.62E-03	87%
80	**2**	**Subsurface**	**Totals**		**9.78E-04**	**3.66E-05**	**3.16E-06**	**8.39E-04**	**1.86E-03**	
80	**2**	**Subsurface**	**Percent**		**53%**	**2%**	**0%**	**45%**		
80	3	Subsurface	Arsenic	1.04E+01	1.70E-05	3.69E-06	4.37E-12		2.07E-05	1%
80	3	Subsurface	Cadmium	1.84E+01			3.22E-12		3.22E-12	0%
80	3	Subsurface	PAH, Total	4.46E-01	3.54E-06	3.32E-06	4.77E-14		6.86E-06	0%
80	3	Subsurface	PCB, Total	5.68E+02	1.23E-03	1.25E-03	3.16E-11		2.48E-03	99%
80	3	Subsurface	Uranium-238	2.91E+00	1.27E-06		4.11E-09	1.17E-06	2.45E-06	0%
80	**3**	**Subsurface**	**Totals**		**1.26E-03**	**1.26E-03**	**4.15E-09**	**1.17E-06**	**2.51E-03**	
80	**3**	**Subsurface**	**Percent**		**50%**	**50%**	**0%**	**0%**		
204	1	Subsurface	PAH, Total	4.93E-01	3.91E-06	3.67E-06	5.28E-14		7.58E-06	87%
204	1	Subsurface	Uranium-238	1.37E+00	5.97E-07		1.93E-09	5.49E-07	1.15E-06	13%
204	**1**	**Subsurface**	**Totals**		**4.51E-06**	**3.67E-06**	**1.93E-09**	**5.49E-07**	**8.73E-06**	
204	**1**	**Subsurface**	**Percent**		**52%**	**42%**	**0%**	**6%**		
204	2	Subsurface	Arsenic	4.59E+01	7.48E-05	1.62E-05	1.92E-11		9.10E-05	97%
204	2	Subsurface	PAH, Total	4.93E-02	3.91E-07	3.67E-07	5.28E-15		7.58E-07	1%
204	2	Subsurface	Uranium-238	2.85E+00	1.25E-06		4.03E-09	1.14E-06	2.39E-06	3%
204	**2**	**Subsurface**	**Totals**		**7.64E-05**	**1.66E-05**	**4.05E-09**	**1.14E-06**	**9.41E-05**	
204	**2**	**Subsurface**	**Percent**		**81%**	**18%**	**0%**	**1%**		
204	3	Subsurface	Arsenic	1.10E+01	1.79E-05	3.89E-06	4.60E-12		2.18E-05	90%
204	3	Subsurface	PAH, Total	3.52E-02	2.79E-07	2.62E-07	3.77E-15		5.41E-07	2%
204	3	Subsurface	Uranium-238	2.31E+00	1.01E-06		3.27E-09	9.29E-07	1.94E-06	8%
204	**3**	**Subsurface**	**Totals**		**1.92E-05**	**4.15E-06**	**3.27E-09**	**9.29E-07**	**2.43E-05**	
204	**3**	**Subsurface**	**Percent**		**79%**	**17%**	**0%**	**4%**		
204	4	Subsurface	Arsenic	1.10E+01	1.79E-05	3.89E-06	4.60E-12		2.18E-05	92%
204	4	Subsurface	PAH, Total	2.33E-02	1.85E-07	1.74E-07	2.49E-15		3.58E-07	2%
204	4	Subsurface	Uranium-238	1.82E+00	7.96E-07		2.57E-09	7.32E-07	1.53E-06	6%
204	**4**	**Subsurface**	**Totals**		**1.89E-05**	**4.06E-06**	**2.58E-09**	**7.32E-07**	**2.37E-05**	
204	**4**	**Subsurface**	**Percent**		**80%**	**17%**	**0%**	**3%**		
204	5	Subsurface	Arsenic	5.67E+01	9.24E-05	2.00E-05	2.37E-11		1.12E-04	95%
204	5	Subsurface	Cobalt	1.04E+01			9.12E-12		9.12E-12	0%
204	5	Subsurface	PAH, Total	1.66E-02	1.32E-07	1.24E-07	1.78E-15		2.55E-07	0%
204	5	Subsurface	Uranium-238	6.60E+00	2.88E-06		9.33E-09	2.65E-06	5.55E-06	5%
204	**5**	**Subsurface**	**Totals**		**9.54E-05**	**2.02E-05**	**9.36E-09**	**2.65E-06**	**1.18E-04**	
204	**5**	**Subsurface**	**Percent**		**81%**	**17%**	**0%**	**2%**		
204	6	Subsurface	Arsenic	1.00E+01	1.63E-05	3.53E-06	4.18E-12		1.98E-05	85%
204	6	Subsurface	PAH, Total	3.25E-02	2.58E-07	2.42E-07	3.48E-15		5.00E-07	2%
204	6	Subsurface	Uranium-238	3.63E+00	1.59E-06		5.13E-09	1.46E-06	3.05E-06	13%
204	**6**	**Subsurface**	**Totals**		**1.81E-05**	**3.78E-06**	**5.14E-09**	**1.46E-06**	**2.34E-05**	
204	**6**	**Subsurface**	**Percent**		**78%**	**16%**	**0%**	**6%**		
204	7	Subsurface	Arsenic	1.70E+01	2.77E-05	6.01E-06	7.11E-12		3.37E-05	95%
204	7	Subsurface	Cobalt	1.50E+01			1.31E-11		1.31E-11	0%
204	7	Subsurface	PAH, Total	9.68E-03	7.67E-08	7.21E-08	1.04E-15		1.49E-07	0%
204	7	Subsurface	Uranium-238	2.04E+00	8.92E-07		2.89E-09	8.20E-07	1.72E-06	5%
204	**7**	**Subsurface**	**Totals**		**2.87E-05**	**6.08E-06**	**2.91E-09**	**8.20E-07**	**3.56E-05**	

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.39. ELCR for the Outdoor Worker Exposed to Surface and Subsurface Soils (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
204	**7**	**Subsurface**	**Percent**		**81%**	**17%**	**0%**	**2%**		
204	8	Subsurface	Arsenic	8.40E+00	1.37E-05	2.97E-06	3.52E-12		1.67E-05	86%
204	8	Subsurface	Cobalt	1.40E+01			1.23E-11		1.23E-11	0%
204	8	Subsurface	PAH, Total	7.37E-02	5.84E-07	5.49E-07	7.88E-15		1.13E-06	6%
204	8	Subsurface	Uranium-238	2.01E+00	8.79E-07		2.84E-09	8.08E-07	1.69E-06	9%
204	**8**	**Subsurface**	**Totals**		**1.51E-05**	**3.52E-06**	**2.86E-09**	**8.08E-07**	**1.95E-05**	
204	**8**	**Subsurface**	**Percent**		**78%**	**18%**	**0%**	**4%**		
204	9	Subsurface	Arsenic	8.40E+00	1.37E-05	2.97E-06	3.52E-12		1.67E-05	17%
204	9	Subsurface	PAH, Total	5.01E+00	3.97E-05	3.73E-05	5.36E-13		7.70E-05	81%
204	9	Subsurface	Uranium-238	2.22E+00	9.71E-07		3.14E-09	8.93E-07	1.87E-06	2%
204	**9**	**Subsurface**	**Totals**		**5.44E-05**	**4.03E-05**	**3.14E-09**	**8.93E-07**	**9.56E-05**	
204	**9**	**Subsurface**	**Percent**		**57%**	**42%**	**0%**	**1%**		
204	10	Subsurface	Cesium-137	2.83E-01	2.04E-08		1.44E-12	1.84E-06	1.86E-06	34%
204	10	Subsurface	PAH, Total	6.42E-02	5.09E-07	4.78E-07	6.87E-15		9.87E-07	18%
204	10	Subsurface	Uranium-238	3.15E+00	1.38E-06		4.46E-09	1.27E-06	2.65E-06	48%
204	**10**	**Subsurface**	**Totals**		**1.91E-06**	**4.78E-07**	**4.46E-09**	**3.11E-06**	**5.50E-06**	
204	**10**	**Subsurface**	**Percent**		**35%**	**9%**	**0%**	**57%**		
204	11	Subsurface	Arsenic	8.80E+00	1.43E-05	3.11E-06	3.68E-12		1.74E-05	80%
204	11	Subsurface	PAH, Total	1.09E-01	8.67E-07	8.14E-07	1.17E-14		1.68E-06	8%
204	11	Subsurface	Uranium-238	3.09E+00	1.35E-06		4.37E-09	1.24E-06	2.60E-06	12%
204	**11**	**Subsurface**	**Totals**		**1.66E-05**	**3.92E-06**	**4.37E-09**	**1.24E-06**	**2.17E-05**	
204	**11**	**Subsurface**	**Percent**		**76%**	**18%**	**0%**	**6%**		
204	12	Subsurface	Arsenic	9.80E+00	1.60E-05	3.46E-06	4.10E-12		1.94E-05	77%
204	12	Subsurface	Cesium-137	2.93E-01	2.11E-08		1.49E-12	1.90E-06	1.93E-06	8%
204	12	Subsurface	PAH, Total	6.43E-02	5.10E-07	4.79E-07	6.88E-15		9.89E-07	4%
204	12	Subsurface	Uranium-238	3.26E+00	1.43E-06		4.61E-09	1.31E-06	2.74E-06	11%
204	**12**	**Subsurface**	**Totals**		**1.79E-05**	**3.94E-06**	**4.62E-09**	**3.22E-06**	**2.51E-05**	
204	**12**	**Subsurface**	**Percent**		**71%**	**16%**	**0%**	**13%**		
204	13	Subsurface	Arsenic	8.60E+00	1.40E-05	3.04E-06	3.60E-12		1.70E-05	58%
204	13	Subsurface	Cesium-137	2.89E-01	2.08E-08		1.47E-12	1.88E-06	1.90E-06	7%
204	13	Subsurface	PAH, Total	5.05E-01	4.00E-06	3.76E-06	5.41E-14		7.77E-06	27%
204	13	Subsurface	Uranium-238	2.98E+00	1.30E-06		4.21E-09	1.20E-06	2.51E-06	9%
204	**13**	**Subsurface**	**Totals**		**1.93E-05**	**6.80E-06**	**4.22E-09**	**3.08E-06**	**2.92E-05**	
204	**13**	**Subsurface**	**Percent**		**66%**	**23%**	**0%**	**11%**		
204	14	Subsurface	Arsenic	1.36E+02	2.22E-04	4.81E-05	5.69E-11		2.70E-04	98%
204	14	Subsurface	PAH, Total	1.28E-01	1.01E-06	9.51E-07	1.37E-14		1.96E-06	1%
204	14	Subsurface	Uranium-238	4.25E+00	1.86E-06		6.01E-09	1.71E-06	3.57E-06	1%
204	**14**	**Subsurface**	**Totals**		**2.24E-04**	**4.90E-05**	**6.07E-09**	**1.71E-06**	**2.76E-04**	
204	**14**	**Subsurface**	**Percent**		**82%**	**18%**	**0%**	**1%**		
204	15	Subsurface	Cesium-137	6.30E-01	4.53E-08		3.20E-12	4.10E-06	4.14E-06	36%
204	15	Subsurface	PAH, Total	1.89E-01	1.49E-06	1.40E-06	2.02E-14		2.90E-06	25%
204	15	Subsurface	Uranium-238	5.37E+00	2.35E-06		7.60E-09	2.16E-06	4.52E-06	39%
204	**15**	**Subsurface**	**Totals**		**3.89E-06**	**1.40E-06**	**7.60E-09**	**6.26E-06**	**1.16E-05**	
204	**15**	**Subsurface**	**Percent**		**34%**	**12%**	**0%**	**54%**		
204	16	Subsurface	Arsenic	8.20E+00	1.34E-05	2.90E-06	3.43E-12		1.63E-05	98%
204	16	Subsurface	PAH, Total	2.61E-02	2.07E-07	1.94E-07	2.79E-15		4.01E-07	2%
204	**16**	**Subsurface**	**Totals**		**1.36E-05**	**3.09E-06**	**3.43E-12**		**1.67E-05**	
204	**16**	**Subsurface**	**Percent**		**81%**	**19%**	**0%**			
204	17	Subsurface	Arsenic	9.60E+00	1.56E-05	3.39E-06	4.02E-12		1.90E-05	81%
204	17	Subsurface	PAH, Total	1.49E-01	1.18E-06	1.11E-06	1.59E-14		2.28E-06	10%
204	17	Subsurface	Uranium-238	2.50E+00	1.09E-06		3.54E-09	1.01E-06	2.10E-06	9%
204	**17**	**Subsurface**	**Totals**		**1.79E-05**	**4.50E-06**	**3.54E-09**	**1.01E-06**	**2.34E-05**	
204	**17**	**Subsurface**	**Percent**		**76%**	**19%**	**0%**	**4%**		
204	18	Subsurface	PAH, Total	2.13E-02	1.69E-07	1.59E-07	2.28E-15		3.28E-07	18%
204	18	Subsurface	Uranium-238	1.81E+00	7.92E-07		2.56E-09	7.28E-07	1.52E-06	82%
204	**18**	**Subsurface**	**Totals**		**9.60E-07**	**1.59E-07**	**2.56E-09**	**7.28E-07**	**1.85E-06**	
204	**18**	**Subsurface**	**Percent**		**52%**	**9%**	**0%**	**39%**		
204	19	Subsurface	Arsenic	1.20E+01	1.95E-05	4.24E-06	5.02E-12		2.38E-05	85%
204	19	Subsurface	PAH, Total	1.30E-01	1.03E-06	9.66E-07	1.39E-14		1.99E-06	7%
204	19	Subsurface	Uranium-238	2.65E+00	1.16E-06		3.75E-09	1.07E-06	2.23E-06	8%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.39. ELCR for the Outdoor Worker Exposed to Surface and Subsurface Soils (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
204	**19**	**Subsurface**	**Totals**		**2.17E-05**	**5.21E-06**	**3.75E-09**	**1.07E-06**	**2.80E-05**	
204	**19**	**Subsurface**	**Percent**		**78%**	**19%**	**0%**	**4%**		
204	20	Subsurface	Americium-241	3.71E+00	1.49E-06		8.18E-09	3.40E-07	1.83E-06	0%
204	20	Subsurface	Arsenic	1.40E+01	2.28E-05	4.95E-06	5.86E-12		2.78E-05	1%
204	20	Subsurface	Cesium-137	1.17E+00	8.43E-08		5.96E-12	7.62E-06	7.70E-06	0%
204	20	Subsurface	Chromium	1.75E+02			1.43E-09		1.43E-09	0%
204	20	Subsurface	Cobalt	1.30E+01			1.14E-11		1.14E-11	0%
204	20	Subsurface	PCB, Total	7.90E+01	1.72E-04	1.74E-04	4.39E-12		3.45E-04	8%
204	20	Subsurface	Protactinium-231	3.65E+01	2.41E-05		1.66E-07	1.56E-05	3.99E-05	1%
204	20	Subsurface	Uranium-234	4.45E+02	1.46E-04		7.38E-07	3.80E-07	1.47E-04	3%
204	20	Subsurface	Uranium-235	5.70E+01	1.95E-05		8.50E-08	1.11E-04	1.31E-04	3%
204	20	Subsurface	Uranium-238	4.39E+03	1.92E-03		6.20E-06	1.76E-03	3.69E-03	84%
204	**20**	**Subsurface**	**Totals**		**2.30E-03**	**1.79E-04**	**7.20E-06**	**1.90E-03**	**4.39E-03**	
204	**20**	**Subsurface**	**Percent**		**53%**	**4%**	**0%**	**43%**		
204	21	Subsurface	Arsenic	8.60E+00	1.40E-05	3.04E-06	3.60E-12		1.70E-05	98%
204	21	Subsurface	Cobalt	1.80E+01			1.58E-11		1.58E-11	0%
204	21	Subsurface	PAH, Total	1.62E-02	1.29E-07	1.21E-07	1.74E-15		2.50E-07	1%
204	**21**	**Subsurface**	**Totals**		**1.41E-05**	**3.16E-06**	**1.94E-11**		**1.73E-05**	
204	**21**	**Subsurface**	**Percent**		**82%**	**18%**	**0%**			
211	1	Subsurface	Arsenic	1.00E+01	1.63E-05	3.53E-06	4.18E-12		1.98E-05	10%
211	1	Subsurface	Cadmium	1.42E+01			2.48E-12		2.48E-12	0%
211	1	Subsurface	Chromium	4.84E+01			3.96E-10		3.96E-10	0%
211	1	Subsurface	Cobalt	4.95E+01			4.34E-11		4.34E-11	0%
211	1	Subsurface	PAH, Total	1.04E-01	8.23E-07	7.73E-07	1.11E-14		1.60E-06	1%
211	1	Subsurface	PCB, Total	1.00E+01	2.17E-05	2.20E-05	5.56E-13		4.37E-05	22%
211	1	Subsurface	Uranium-234	6.69E+01	2.20E-05		1.11E-07	5.72E-08	2.21E-05	11%
211	1	Subsurface	Uranium-235	3.86E+00	1.32E-06		5.76E-09	7.51E-06	8.84E-06	5%
211	1	Subsurface	Uranium-238	1.19E+02	5.20E-05		1.68E-07	4.78E-05	1.00E-04	51%
211	**1**	**Subsurface**	**Totals**		**1.14E-04**	**2.63E-05**	**2.85E-07**	**5.54E-05**	**1.96E-04**	
211	**1**	**Subsurface**	**Percent**		**58%**	**13%**	**0%**	**28%**		
224	1	Subsurface	Arsenic	1.00E+01	1.63E-05	3.53E-06	4.18E-12		1.98E-05	46%
224	1	Subsurface	Cesium-137	3.70E-01	2.66E-08		1.88E-12	2.41E-06	2.43E-06	6%
224	1	Subsurface	Chromium	6.50E+01			5.31E-10		5.31E-10	0%
224	1	Subsurface	PAH, Total	5.95E-01	4.72E-06	4.44E-06	6.37E-14		9.16E-06	21%
224	1	Subsurface	Uranium-238	1.39E+01	6.08E-06		1.97E-08	5.59E-06	1.17E-05	27%
224	**1**	**Subsurface**	**Totals**		**2.71E-05**	**7.97E-06**	**2.02E-08**	**7.99E-06**	**4.31E-05**	
224	**1**	**Subsurface**	**Percent**		**63%**	**18%**	**0%**	**19%**		
225	1	Subsurface	Arsenic	8.10E+00	1.32E-05	2.86E-06	3.39E-12		1.61E-05	74%
225	1	Subsurface	Cesium-137	4.17E-01	3.00E-08		2.12E-12	2.71E-06	2.74E-06	13%
225	1	Subsurface	PAH, Total	7.79E-02	6.17E-07	5.80E-07	8.33E-15		1.20E-06	6%
225	1	Subsurface	Uranium-238	2.04E+00	8.92E-07		2.89E-09	8.20E-07	1.72E-06	8%
225	**1**	**Subsurface**	**Totals**		**1.47E-05**	**3.44E-06**	**2.89E-09**	**3.53E-06**	**2.18E-05**	
225	**1**	**Subsurface**	**Percent**		**68%**	**16%**	**0%**	**16%**		
565	1	Subsurface	Cesium-137	4.00E-01	2.88E-08		2.03E-12	2.60E-06	2.63E-06	100%
565	**1**	**Subsurface**	**Totals**		**2.88E-08**		**2.03E-12**	**2.60E-06**	**2.63E-06**	
565	**1**	**Subsurface**	**Percent**		**1%**		**0%**	**99%**		

The percentages listed throughout this table under the "Percent" column represent the percent contributions for each COPC to the Total ELCR.
The percentages listed in the row beneath "Totals" represent the percent contributions for each pathway to the Total ELCR.

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.40. ELCR for the Excavation Worker

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
13	1	Subsurface	PCB, Total	9.42E+00	4.09E-06	4.14E-06	1.05E-13		8.23E-06	98%
13	1	Subsurface	Uranium-238	1.20E+00	1.05E-07		3.40E-10	9.67E-08	2.02E-07	2.40E-02
13	**1**	**Subsurface**	**Totals**		**4.20E-06**	**4.14E-06**	**3.40E-10**	**9.67E-08**	**8.43E-06**	
13	**1**	**Subsurface**	**Percent**		**50%**	**49%**	**0%**	**1%**		
13	2	Subsurface	Arsenic	1.04E+01	3.39E-06	7.35E-07	8.70E-13		4.12E-06	96%
13	2	Subsurface	Uranium-238	9.95E-01	8.70E-08		2.81E-10	8.00E-08	1.67E-07	4%
13	**2**	**Subsurface**	**Totals**		**3.48E-06**	**7.35E-07**	**2.82E-10**	**8.00E-08**	**4.29E-06**	
13	**2**	**Subsurface**	**Percent**		**81%**	**17%**	**0%**	**2%**		
13	3	Subsurface	PAH, Total	4.93E-01	7.82E-07	7.35E-07	1.06E-14		1.52E-06	100%
13	**3**	**Subsurface**	**Totals**		**7.82E-07**	**7.35E-07**	**1.06E-14**		**1.52E-06**	
13	**3**	**Subsurface**	**Percent**		**52%**	**48%**	**0%**			
13	4	Subsurface	PAH, Total	5.59E-01	8.86E-07	8.33E-07	1.20E-14		1.72E-06	14%
13	4	Subsurface	PCB, Total	1.09E+01	4.74E-06	4.80E-06	1.21E-13		9.54E-06	78%
13	4	Subsurface	Cobalt-60	8.06E-02	1.00E-09		7.13E-14	4.96E-07	4.97E-07	4%
13	4	Subsurface	Uranium-238	3.27E+00	2.86E-07		9.24E-10	2.63E-07	5.49E-07	4%
13	**4**	**Subsurface**	**Totals**		**5.91E-06**	**5.63E-06**	**9.24E-10**	**7.58E-07**	**1.23E-05**	
13	**4**	**Subsurface**	**Percent**		**48%**	**46%**	**0%**	**6%**		
13	5	Subsurface	Chromium	9.37E+01			1.53E-10		1.53E-10	0%
13	5	Subsurface	PAH, Total	5.43E-01	8.61E-07	8.09E-07	1.16E-14		1.67E-06	8%
13	5	Subsurface	PCB, Total	1.03E+01	4.48E-06	4.54E-06	1.15E-13		9.02E-06	44%
13	5	Subsurface	Cesium-137	3.52E-01	6.29E-09		4.44E-13	5.69E-07	5.75E-07	3%
13	5	Subsurface	Neptunium-237	3.60E-01	2.25E-08		1.23E-10	2.08E-07	2.31E-07	1%
13	5	Subsurface	Technetium-99	9.19E+01	2.96E-07		4.18E-11	5.14E-09	3.01E-07	1%
13	5	Subsurface	Uranium-234	2.02E+01	1.32E-06		6.69E-09	3.45E-09	1.33E-06	6%
13	5	Subsurface	Uranium-235	2.73E+00	1.87E-07		8.15E-10	1.06E-06	1.25E-06	6%
13	5	Subsurface	Uranium-238	3.77E+01	3.30E-06		1.07E-08	3.03E-06	6.35E-06	31%
13	**5**	**Subsurface**	**Totals**		**1.05E-05**	**5.35E-06**	**1.85E-08**	**4.88E-06**	**2.07E-05**	
13	**5**	**Subsurface**	**Percent**		**51%**	**26%**	**0%**	**24%**		
13	6	Subsurface	Cadmium	4.68E+00			1.64E-13		1.64E-13	0%
13	6	Subsurface	PAH, Total	8.43E-01	1.34E-06	1.26E-06	1.80E-14		2.59E-06	15%
13	6	Subsurface	PCB, Total	7.04E+00	3.06E-06	3.09E-06	7.82E-14		6.15E-06	37%
13	6	Subsurface	Cesium-137	2.02E-01	3.61E-09		2.55E-13	3.26E-07	3.30E-07	2%
13	6	Subsurface	Neptunium-237	6.23E-01	3.90E-08		2.13E-10	3.60E-07	3.99E-07	2%
13	6	Subsurface	Technetium-99	8.38E+01	2.70E-07		3.81E-11	4.69E-09	2.74E-07	2%
13	6	Subsurface	Uranium-234	1.55E+01	1.02E-06		5.15E-09	2.65E-09	1.03E-06	6%
13	6	Subsurface	Uranium-235	1.16E+00	7.94E-08		3.46E-10	4.52E-07	5.32E-07	3%
13	6	Subsurface	Uranium-238	3.25E+01	2.84E-06		9.19E-09	2.61E-06	5.46E-06	33%
13	**6**	**Subsurface**	**Totals**		**8.64E-06**	**4.35E-06**	**1.49E-08**	**3.76E-06**	**1.68E-05**	
13	**6**	**Subsurface**	**Percent**		**52%**	**26%**	**0%**	**22%**		
13	7	Subsurface	PCB, Total	1.08E+01	4.71E-06	4.76E-06	1.20E-13		9.47E-06	94%
13	7	Subsurface	Uranium-238	3.69E+00	3.23E-07		1.04E-09	2.97E-07	6.21E-07	6%
13	**7**	**Subsurface**	**Totals**		**5.03E-06**	**4.76E-06**	**1.04E-09**	**2.97E-07**	**1.01E-05**	
13	**7**	**Subsurface**	**Percent**		**50%**	**47%**	**0%**	**3%**		
13	8	Subsurface	PAH, Total	5.39E-01	8.55E-07	8.03E-07	1.15E-14		1.66E-06	100%
13	**8**	**Subsurface**	**Totals**		**8.55E-07**	**8.03E-07**	**1.15E-14**		**1.66E-06**	
13	**8**	**Subsurface**	**Percent**		**52%**	**48%**	**0%**			
13	9	Subsurface	Arsenic	1.25E+01	4.06E-06	8.80E-07	1.04E-12		4.94E-06	64%
13	9	Subsurface	PAH, Total	4.60E-01	7.29E-07	6.86E-07	9.85E-15		1.41E-06	18%
13	9	Subsurface	Cesium-137	2.64E-01	4.72E-09		3.33E-13	4.26E-07	4.31E-07	6%
13	9	Subsurface	Neptunium-237	5.15E-01	3.22E-08		1.76E-10	2.98E-07	3.30E-07	4%
13	9	Subsurface	Uranium-238	3.78E+00	3.30E-07		1.07E-09	3.04E-07	6.35E-07	8%
13	**9**	**Subsurface**	**Totals**		**5.16E-06**	**1.57E-06**	**1.25E-09**	**1.03E-06**	**7.75E-06**	
13	**9**	**Subsurface**	**Percent**		**67%**	**20%**	**0%**	**13%**		
13	**10**	**Subsurface**	**Totals**						**0.00E+00**	
13	11	Subsurface	PCB, Total	1.03E+01	4.49E-06	4.55E-06	1.15E-13		9.04E-06	100%
13	**11**	**Subsurface**	**Totals**		**4.49E-06**	**4.55E-06**	**1.15E-13**		**9.04E-06**	
13	**11**	**Subsurface**	**Percent**		**50%**	**50%**	**0%**			
13	12	Subsurface	PCB, Total	1.03E+01	4.47E-06	4.53E-06	1.14E-13		9.00E-06	100%
13	**12**	**Subsurface**	**Totals**		**4.47E-06**	**4.53E-06**	**1.14E-13**		**9.00E-06**	
13	**12**	**Subsurface**	**Percent**		**50%**	**50%**	**0%**			

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.40. ELCR for the Excavation Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
13	**13**	**Subsurface**	**Totals**						**0.00E+00**	
13	14	Subsurface	PAH, Total	5.41E-01	8.58E-07	8.06E-07	1.16E-14		1.66E-06	14%
13	14	Subsurface	PCB, Total	1.06E+01	4.60E-06	4.65E-06	1.18E-13		9.25E-06	80%
13	14	Subsurface	Uranium-238	3.85E+00	3.36E-07		1.09E-09	3.09E-07	6.47E-07	6%
13	**14**	**Subsurface**	**Totals**		**5.79E-06**	**5.46E-06**	**1.09E-09**	**3.09E-07**	**1.16E-05**	
13	**14**	**Subsurface**	**Percent**		**50%**	**47%**	**0%**	**3%**		
15	1	Subsurface	Arsenic	1.32E+01	4.29E-06	9.30E-07	1.10E-12		5.22E-06	58%
15	1	Subsurface	Cadmium	2.72E+01			9.52E-13		9.52E-13	0%
15	1	Subsurface	Chromium	8.29E+01			1.35E-10		1.35E-10	0%
15	1	Subsurface	Nickel	1.39E+02			7.02E-13		7.02E-13	0%
15	1	Subsurface	PAH, Total	1.16E+00	1.83E-06	1.72E-06	2.48E-14		3.56E-06	38%
15	1	Subsurface	Technetium-99	1.06E+02	3.42E-07		4.83E-11	5.95E-09	3.48E-07	4%
15	1	Subsurface	Uranium-238	1.30E+00	1.13E-07		3.66E-10	1.04E-07	2.18E-07	2%
15	**1**	**Subsurface**	**Totals**		**6.58E-06**	**2.65E-06**	**5.53E-10**	**1.10E-07**	**9.35E-06**	
15	**1**	**Subsurface**	**Percent**		**70%**	**28%**	**0%**	**1%**		
15	2	Subsurface	Arsenic	1.63E+01	5.30E-06	1.15E-06	1.36E-12		6.45E-06	42%
15	2	Subsurface	Cadmium	1.51E+01			5.30E-13		5.30E-13	0%
15	2	Subsurface	Chromium	5.90E+01			9.65E-11		9.65E-11	0%
15	2	Subsurface	Nickel	3.75E+02			1.90E-12		1.90E-12	0%
15	2	Subsurface	PAH, Total	2.11E+00	3.34E-06	3.14E-06	4.51E-14		6.48E-06	40%
15	2	Subsurface	PCB, Total	3.30E-01	1.43E-07	1.45E-07	3.67E-15		2.88E-07	2%
15	2	Subsurface	Neptunium-237	5.56E-01	3.48E-08		1.90E-10	3.21E-07	3.56E-07	2%
15	2	Subsurface	Uranium-234	6.51E+00	4.28E-07		2.16E-09	1.11E-09	4.31E-07	3%
15	2	Subsurface	Uranium-235	3.80E-01	2.60E-08		1.13E-10	1.48E-07	1.74E-07	1%
15	2	Subsurface	Uranium-238	1.21E+01	1.06E-06		3.42E-09	9.73E-07	2.03E-06	13%
15	**2**	**Subsurface**	**Totals**		**1.03E-05**	**4.44E-06**	**5.99E-09**	**1.44E-06**	**1.62E-05**	
15	**2**	**Subsurface**	**Percent**		**64%**	**27%**	**0%**	**9%**		
15	3	Subsurface	Arsenic	3.65E+01	1.19E-05	2.58E-06	3.06E-12		1.45E-05	6%
15	3	Subsurface	Cadmium	1.89E+01			6.64E-13		6.64E-13	0%
15	3	Subsurface	Chromium	8.13E+01			1.33E-10		1.33E-10	0%
15	3	Subsurface	Cobalt	2.37E+01			4.15E-12		4.15E-12	0%
15	3	Subsurface	Nickel	8.38E+02			4.24E-12		4.24E-12	0%
15	3	Subsurface	PAH, Total	9.85E-01	1.56E-06	1.47E-06	2.11E-14		3.03E-06	1%
15	3	Subsurface	PCB, Total	1.40E+01	6.06E-06	6.13E-06	1.55E-13		1.22E-05	5%
15	3	Subsurface	Neptunium-237	4.06E+00	2.54E-07		1.39E-09	2.35E-06	2.60E-06	1%
15	3	Subsurface	Technetium-99	2.08E+02	6.71E-07		9.48E-11	1.17E-08	6.83E-07	0%
15	3	Subsurface	Thorium-230	4.61E+00	3.40E-07		1.88E-09	2.63E-09	3.44E-07	0%
15	3	Subsurface	Uranium-234	1.91E+02	1.25E-05		6.33E-08	3.26E-08	1.26E-05	5%
15	3	Subsurface	Uranium-235	2.15E+01	1.47E-06		6.41E-09	8.36E-06	9.84E-06	4%
15	3	Subsurface	Uranium-238	1.08E+03	9.41E-05		3.04E-07	8.65E-05	1.81E-04	77%
15	**3**	**Subsurface**	**Totals**		**1.29E-04**	**1.02E-05**	**3.78E-07**	**9.73E-05**	**2.37E-04**	
15	**3**	**Subsurface**	**Percent**		**54%**	**4%**	**0%**	**41%**		
15	4	Subsurface	Arsenic	3.37E+01	1.10E-05	2.38E-06	2.82E-12		1.34E-05	29%
15	4	Subsurface	Cadmium	1.34E+01			4.71E-13		4.71E-13	0%
15	4	Subsurface	Chromium	8.55E+01			1.40E-10		1.40E-10	0%
15	4	Subsurface	Nickel	1.24E+03			6.28E-12		6.28E-12	0%
15	4	Subsurface	PAH, Total	1.25E+00	1.98E-06	1.86E-06	2.67E-14		3.83E-06	8%
15	4	Subsurface	PCB, Total	3.13E+01	1.36E-05	1.38E-05	3.48E-13		2.74E-05	59%
15	4	Subsurface	Neptunium-237	4.33E-01	2.71E-08		1.48E-10	2.50E-07	2.77E-07	1%
15	4	Subsurface	Uranium-234	5.74E+00	3.77E-07		1.90E-09	9.81E-10	3.80E-07	1%
15	4	Subsurface	Uranium-235	2.69E-01	1.84E-08		8.03E-11	1.05E-07	1.23E-07	0%
15	4	Subsurface	Uranium-238	9.63E+00	8.42E-07		2.72E-09	7.74E-07	1.62E-06	3%
15	**4**	**Subsurface**	**Totals**		**2.78E-05**	**1.80E-05**	**5.01E-09**	**1.13E-06**	**4.70E-05**	
15	**4**	**Subsurface**	**Percent**		**59%**	**38%**	**0%**	**2%**		
15	5	Subsurface	Arsenic	1.33E+01	4.33E-06	9.39E-07	1.11E-12		5.27E-06	11%
15	5	Subsurface	Cadmium	1.80E+01			6.32E-13		6.32E-13	0%
15	5	Subsurface	Chromium	6.58E+01			1.08E-10		1.08E-10	0%
15	5	Subsurface	Nickel	3.48E+02			1.76E-12		1.76E-12	0%
15	5	Subsurface	PAH, Total	3.31E-01	5.25E-07	4.93E-07	7.09E-15		1.02E-06	2%
15	5	Subsurface	PCB, Total	4.64E+01	2.01E-05	2.04E-05	5.15E-13		4.05E-05	83%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.40. ELCR for the Excavation Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
15	5	Subsurface	Neptunium-237	5.30E-01	3.32E-08		1.82E-10	3.06E-07	3.40E-07	1%
15	5	Subsurface	Uranium-235	3.62E-01	2.48E-08		1.08E-10	1.41E-07	1.66E-07	0%
15	5	Subsurface	Uranium-238	8.14E+00	7.12E-07		2.30E-09	6.55E-07	1.37E-06	3%
15	**5**	**Subsurface**	**Totals**		**2.58E-05**	**2.18E-05**	**2.70E-09**	**1.10E-06**	**4.87E-05**	
15	**5**	**Subsurface**	**Percent**		**53%**	**45%**	**0%**	**2%**		
15	6	Subsurface	Arsenic	1.20E+01	3.92E-06	8.50E-07	1.01E-12		4.77E-06	29%
15	6	Subsurface	Cadmium	2.50E+01			8.77E-13		8.77E-13	0%
15	6	Subsurface	Chromium	7.97E+01			1.30E-10		1.30E-10	0%
15	6	Subsurface	Cobalt	1.13E+01			1.98E-12		1.98E-12	0%
15	6	Subsurface	Nickel	3.00E+02			1.52E-12		1.52E-12	0%
15	6	Subsurface	PAH, Total	1.25E+00	1.98E-06	1.86E-06	2.67E-14		3.84E-06	23%
15	6	Subsurface	PCB, Total	6.17E+00	2.68E-06	2.71E-06	6.85E-14		5.39E-06	33%
15	6	Subsurface	Neptunium-237	4.93E-01	3.09E-08		1.69E-10	2.85E-07	3.16E-07	2%
15	6	Subsurface	Uranium-234	6.91E+00	4.54E-07		2.29E-09	1.18E-09	4.58E-07	3%
15	6	Subsurface	Uranium-235	4.48E-01	3.06E-08		1.34E-10	1.74E-07	2.05E-07	1%
15	6	Subsurface	Uranium-238	1.21E+01	1.05E-06		3.41E-09	9.69E-07	2.03E-06	12%
15	**6**	**Subsurface**	**Totals**		**1.01E-05**	**5.42E-06**	**6.14E-09**	**1.43E-06**	**1.70E-05**	
15	**6**	**Subsurface**	**Percent**		**60%**	**32%**	**0%**	**8%**		
15	7	Subsurface	Arsenic	1.61E+01	5.26E-06	1.14E-06	1.35E-12		6.40E-06	21%
15	7	Subsurface	Cadmium	2.78E+01			9.73E-13		9.73E-13	0%
15	7	Subsurface	Chromium	6.54E+01			1.07E-10		1.07E-10	0%
15	7	Subsurface	Nickel	5.59E+02			2.83E-12		2.83E-12	0%
15	7	Subsurface	PAH, Total	1.24E-01	1.97E-07	1.85E-07	2.65E-15		3.81E-07	1%
15	7	Subsurface	PCB, Total	2.55E+01	1.11E-05	1.12E-05	2.84E-13		2.23E-05	73%
15	7	Subsurface	Uranium-234	4.27E+00	2.81E-07		1.42E-09	7.31E-10	2.83E-07	1%
15	7	Subsurface	Uranium-235	2.96E-01	2.02E-08		8.83E-11	1.15E-07	1.36E-07	0%
15	7	Subsurface	Uranium-238	6.39E+00	5.59E-07		1.81E-09	5.14E-07	1.07E-06	4%
15	**7**	**Subsurface**	**Totals**		**1.74E-05**	**1.26E-05**	**3.43E-09**	**6.30E-07**	**3.06E-05**	
15	**7**	**Subsurface**	**Percent**		**57%**	**41%**	**0%**	**2%**		
15	8	Subsurface	Arsenic	1.14E+01	3.72E-06	8.07E-07	9.56E-13		4.53E-06	39%
15	8	Subsurface	Cadmium	1.68E+01			5.89E-13		5.89E-13	0%
15	8	Subsurface	Chromium	7.53E+01			1.23E-10		1.23E-10	0%
15	8	Subsurface	Nickel	1.82E+02			9.23E-13		9.23E-13	0%
15	8	Subsurface	PAH, Total	2.80E-01	4.44E-07	4.17E-07	5.99E-15		8.61E-07	7%
15	8	Subsurface	PCB, Total	6.29E+00	2.73E-06	2.76E-06	6.99E-14		5.50E-06	47%
15	8	Subsurface	Neptunium-237	2.83E-01	1.77E-08		9.69E-11	1.64E-07	1.81E-07	2%
15	8	Subsurface	Uranium-238	4.52E+00	3.95E-07		1.28E-09	3.64E-07	7.60E-07	6%
15	**8**	**Subsurface**	**Totals**		**7.31E-06**	**3.99E-06**	**1.50E-09**	**5.27E-07**	**1.18E-05**	
15	**8**	**Subsurface**	**Percent**		**62%**	**34%**	**0%**	**4%**		
15	9	Subsurface	Arsenic	1.31E+01	4.27E-06	9.25E-07	1.10E-12		5.19E-06	43%
15	9	Subsurface	Cadmium	2.81E+01			9.83E-13		9.83E-13	0%
15	9	Subsurface	Chromium	8.92E+01			1.46E-10		1.46E-10	0%
15	9	Subsurface	Nickel	1.49E+02			7.55E-13		7.55E-13	0%
15	9	Subsurface	PAH, Total	1.85E-01	2.93E-07	2.76E-07	3.96E-15		5.69E-07	5%
15	9	Subsurface	PCB, Total	6.51E+00	2.83E-06	2.86E-06	7.23E-14		5.69E-06	47%
15	9	Subsurface	Uranium-238	4.68E+00	4.10E-07		1.32E-09	3.77E-07	7.87E-07	6%
15	**9**	**Subsurface**	**Totals**		**7.79E-06**	**4.06E-06**	**1.47E-09**	**3.77E-07**	**1.22E-05**	
15	**9**	**Subsurface**	**Percent**		**64%**	**33%**	**0%**	**3%**		
15	10	Subsurface	Arsenic	9.75E+00	3.18E-06	6.89E-07	8.16E-13		3.87E-06	92%
15	10	Subsurface	Cadmium	1.67E+01			5.85E-13		5.85E-13	0%
15	10	Subsurface	Chromium	6.29E+01			1.03E-10		1.03E-10	0%
15	10	Subsurface	Nickel	2.26E+02			1.15E-12		1.15E-12	0%
15	10	Subsurface	PAH, Total	1.28E-01	2.04E-07	1.91E-07	2.75E-15		3.95E-07	9%
15	**10**	**Subsurface**	**Totals**		**3.38E-06**	**8.80E-07**	**1.05E-10**		**4.27E-06**	
15	**10**	**Subsurface**	**Percent**		**79%**	**21%**	**0%**			
26	1	Subsurface	Arsenic	1.01E+01	3.30E-06	7.16E-07	8.48E-13		4.02E-06	17%
26	1	Subsurface	Beryllium	1.57E+01			7.34E-13		7.34E-13	0%
26	1	Subsurface	Cadmium	1.03E+01			3.62E-13		3.62E-13	0%
26	1	Subsurface	Cobalt	1.17E+01			2.04E-12		2.04E-12	0%
26	1	Subsurface	Nickel	1.21E+02			6.14E-13		6.14E-13	0%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.40. ELCR for the Excavation Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
26	1	Subsurface	PAH, Total	2.97E-01	4.71E-07	4.43E-07	6.36E-15		9.14E-07	4%
26	1	Subsurface	PCB, Total	6.35E+00	2.76E-06	2.79E-06	7.05E-14		5.55E-06	24%
26	1	Subsurface	Uranium-234	8.04E+00	5.28E-07		2.67E-09	1.37E-09	5.32E-07	2%
26	1	Subsurface	Uranium-235	1.27E+00	8.66E-08		3.78E-10	4.93E-07	5.80E-07	2%
26	1	Subsurface	Uranium-238	6.95E+01	6.08E-06		1.96E-08	5.59E-06	1.17E-05	50%
26	**1**	**Subsurface**	**Totals**		**1.32E-05**	**3.95E-06**	**2.27E-08**	**6.08E-06**	**2.33E-05**	
26	**1**	**Subsurface**	**Percent**		**57%**	**17%**	**0%**	**26%**		
26	2	Subsurface	Arsenic	4.78E+01	1.56E-05	3.38E-06	4.00E-12		1.89E-05	35%
26	2	Subsurface	Beryllium	1.54E+01			7.18E-13		7.18E-13	0%
26	2	Subsurface	Cadmium	1.60E+01			5.61E-13		5.61E-13	0%
26	2	Subsurface	Chromium	7.26E+01			1.19E-10		1.19E-10	0%
26	2	Subsurface	Cobalt	4.72E+01			8.26E-12		8.26E-12	0%
26	2	Subsurface	Nickel	1.08E+02			5.49E-13		5.49E-13	0%
26	2	Subsurface	PAH, Total	3.85E-01	6.11E-07	5.74E-07	8.24E-15		1.18E-06	2%
26	2	Subsurface	PCB, Total	8.33E+00	3.62E-06	3.66E-06	9.25E-14		7.28E-06	13%
26	2	Subsurface	Cesium-137	8.23E+00	1.47E-07		1.04E-11	1.33E-05	1.34E-05	25%
26	2	Subsurface	Neptunium-237	2.04E-01	1.28E-08		6.99E-11	1.18E-07	1.31E-07	0%
26	2	Subsurface	Radium-228	1.69E+00	1.11E-06		6.61E-10	3.46E-06	4.58E-06	8%
26	2	Subsurface	Thorium-230	3.02E+00	2.22E-07		1.23E-09	1.72E-09	2.25E-07	0%
26	2	Subsurface	Uranium-234	1.41E+01	9.27E-07		4.68E-09	2.41E-09	9.34E-07	2%
26	2	Subsurface	Uranium-235	1.84E+00	1.26E-07		5.48E-10	7.15E-07	8.41E-07	2%
26	2	Subsurface	Uranium-238	3.92E+01	3.43E-06		1.11E-08	3.15E-06	6.60E-06	12%
26	**2**	**Subsurface**	**Totals**		**2.58E-05**	**7.61E-06**	**1.84E-08**	**2.07E-05**	**5.41E-05**	
26	**2**	**Subsurface**	**Percent**		**48%**	**14%**	**0%**	**38%**		
26	3	Subsurface	Arsenic	7.52E+01	2.45E-05	5.31E-06	6.29E-12		2.98E-05	69%
26	3	Subsurface	Chromium	6.47E+01			1.06E-10		1.06E-10	0%
26	3	Subsurface	Cobalt	9.23E+00			1.62E-12		1.62E-12	0%
26	3	Subsurface	PAH, Total	3.47E-01	5.50E-07	5.17E-07	7.43E-15		1.07E-06	2%
26	3	Subsurface	PCB, Total	5.51E+00	2.39E-06	2.42E-06	6.12E-14		4.81E-06	11%
26	3	Subsurface	Pentachlorophenol	1.61E+00	1.40E-07	2.52E-07	1.60E-10		3.92E-07	1%
26	3	Subsurface	Cesium-137	3.38E+00	6.04E-08		4.27E-12	5.46E-06	5.52E-06	13%
26	3	Subsurface	Neptunium-237	3.35E-01	2.10E-08		1.15E-10	1.94E-07	2.15E-07	0%
26	3	Subsurface	Uranium-234	3.89E+00	2.55E-07		1.29E-09	6.64E-10	2.57E-07	1%
26	3	Subsurface	Uranium-235	2.91E-01	1.99E-08		8.68E-11	1.13E-07	1.33E-07	0%
26	3	Subsurface	Uranium-238	5.86E+00	5.12E-07		1.66E-09	4.71E-07	9.85E-07	2%
26	**3**	**Subsurface**	**Totals**		**2.84E-05**	**8.50E-06**	**3.43E-09**	**6.23E-06**	**4.32E-05**	
26	**3**	**Subsurface**	**Percent**		**66%**	**20%**	**0%**	**14%**		
26	4	Subsurface	Arsenic	6.05E+01	1.97E-05	4.27E-06	5.06E-12		2.40E-05	9%
26	4	Subsurface	Cadmium	9.00E+00			3.15E-13		3.15E-13	0%
26	4	Subsurface	Chromium	1.02E+02			1.67E-10		1.67E-10	0%
26	4	Subsurface	Cobalt	1.47E+01			2.57E-12		2.57E-12	0%
26	4	Subsurface	Nickel	1.21E+04			6.11E-11		6.11E-11	0%
26	4	Subsurface	PAH, Total	4.28E+00	6.79E-06	6.38E-06	9.17E-14		1.32E-05	5%
26	4	Subsurface	PCB, Total	7.96E+00	3.46E-06	3.50E-06	8.85E-14		6.96E-06	3%
26	4	Subsurface	Cesium-137	4.69E+00	8.38E-08		5.92E-12	7.57E-06	7.66E-06	3%
26	4	Subsurface	Neptunium-237	3.87E+01	2.42E-06		1.33E-08	2.24E-05	2.48E-05	9%
26	4	Subsurface	Plutonium-239/240	1.51E+01	1.53E-06		1.00E-08	2.14E-09	1.54E-06	1%
26	4	Subsurface	Technetium-99	3.81E+03	1.23E-05		1.73E-09	2.13E-07	1.25E-05	5%
26	4	Subsurface	Thorium-230	8.68E+01	6.39E-06		3.53E-08	4.95E-08	6.48E-06	2%
26	4	Subsurface	Uranium-234	3.46E+02	2.27E-05		1.15E-07	5.92E-08	2.29E-05	8%
26	4	Subsurface	Uranium-235	2.46E+01	1.68E-06		7.33E-09	9.56E-06	1.12E-05	4%
26	4	Subsurface	Uranium-238	8.24E+02	7.21E-05		2.33E-07	6.63E-05	1.39E-04	52%
26	**4**	**Subsurface**	**Totals**		**1.49E-04**	**1.42E-05**	**4.16E-07**	**1.06E-04**	**2.70E-04**	
26	**4**	**Subsurface**	**Percent**		**55%**	**5%**	**0%**	**39%**		
77	1	Subsurface	Chromium	8.30E+01			1.36E-10		1.36E-10	0%
77	1	Subsurface	PAH, Total	7.02E-02	1.11E-07	1.05E-07	1.50E-15		2.16E-07	3%
77	1	Subsurface	PCB, Total	5.00E+00	2.17E-06	2.20E-06	5.56E-14		4.37E-06	55%
77	1	Subsurface	Thorium-230	1.03E+01	7.59E-07		4.19E-09	5.88E-09	7.69E-07	10%
77	1	Subsurface	Uranium-238	1.53E+01	1.34E-06		4.33E-09	1.23E-06	2.57E-06	32%
77	**1**	**Subsurface**	**Totals**		**4.38E-06**	**2.30E-06**	**8.66E-09**	**1.24E-06**	**7.93E-06**	

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.40. ELCR for the Excavation Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
77	**1**	**Subsurface**	**Percent**		**55%**	**29%**	**0%**	**16%**		
80	1	Subsurface	Dioxins/Furans, Total	8.82E-05	2.49E-06	5.40E-07	6.52E-14		3.03E-06	3%
80	1	Subsurface	PCB, Total	1.20E+02	5.21E-05	5.28E-05	1.33E-12		1.05E-04	97%
80	**1**	**Subsurface**	**Totals**		**5.46E-05**	**5.33E-05**	**1.40E-12**		**1.08E-04**	
80	**1**	**Subsurface**	**Percent**		**51%**	**49%**	**0%**			
80	2	Subsurface	Arsenic	1.01E+01	3.28E-06	7.12E-07	8.43E-13		3.99E-06	1%
80	2	Subsurface	Chromium	1.65E+02			2.70E-10		2.70E-10	0%
80	2	Subsurface	Cobalt	1.90E+01			3.33E-12		3.33E-12	0%
80	2	Subsurface	PAH, Total	7.21E-01	1.14E-06	1.08E-06	1.54E-14		2.22E-06	1%
80	2	Subsurface	PCB, Total	1.26E+01	5.47E-06	5.54E-06	1.40E-13		1.10E-05	3%
80	2	Subsurface	Americium-241	6.40E+00	5.21E-07		2.87E-09	1.19E-07	6.43E-07	0%
80	2	Subsurface	Cesium-137	8.40E-01	1.50E-08		1.06E-12	1.36E-06	1.37E-06	0%
80	2	Subsurface	Neptunium-237	5.05E-01	3.16E-08		1.73E-10	2.92E-07	3.24E-07	0%
80	2	Subsurface	Uranium-234	2.29E+02	1.50E-05		7.60E-08	3.92E-08	1.52E-05	4%
80	2	Subsurface	Uranium-235	3.00E+01	2.05E-06		8.95E-09	1.17E-05	1.37E-05	4%
80	2	Subsurface	Uranium-238	1.92E+03	1.68E-04		5.43E-07	1.54E-04	3.23E-04	87%
80	**2**	**Subsurface**	**Totals**		**1.96E-04**	**7.33E-06**	**6.32E-07**	**1.68E-04**	**3.71E-04**	
80	**2**	**Subsurface**	**Percent**		**53%**	**2%**	**0%**	**45%**		
80	3	Subsurface	Arsenic	1.04E+01	3.40E-06	7.38E-07	8.74E-13		4.14E-06	1%
80	3	Subsurface	Cadmium	1.84E+01			6.45E-13		6.45E-13	0%
80	3	Subsurface	PAH, Total	4.46E-01	7.07E-07	6.65E-07	9.55E-15		1.37E-06	0%
80	3	Subsurface	PCB, Total	5.68E+02	2.47E-04	2.50E-04	6.31E-12		4.96E-04	99%
80	3	Subsurface	Uranium-238	2.91E+00	2.54E-07		8.23E-10	2.34E-07	4.89E-07	0%
80	**3**	**Subsurface**	**Totals**		**2.51E-04**	**2.51E-04**	**8.31E-10**	**2.34E-07**	**5.02E-04**	
80	**3**	**Subsurface**	**Percent**		**50%**	**50%**	**0%**	**0%**		
204	1	Subsurface	PAH, Total	4.93E-01	7.82E-07	7.35E-07	1.06E-14		1.52E-06	87%
204	1	Subsurface	Uranium-238	1.37E+00	1.19E-07		3.86E-10	1.10E-07	2.30E-07	13%
204	**1**	**Subsurface**	**Totals**		**9.01E-07**	**7.35E-07**	**3.86E-10**	**1.10E-07**	**1.75E-06**	
204	**1**	**Subsurface**	**Percent**		**52%**	**42%**	**0%**	**6%**		
204	2	Subsurface	Arsenic	4.59E+01	1.50E-05	3.24E-06	3.84E-12		1.82E-05	97%
204	2	Subsurface	PAH, Total	4.93E-02	7.82E-08	7.35E-08	1.06E-15		1.52E-07	1%
204	2	Subsurface	Uranium-238	2.85E+00	2.49E-07		8.05E-10	2.29E-07	4.79E-07	3%
204	**2**	**Subsurface**	**Totals**		**1.53E-05**	**3.32E-06**	**8.09E-10**	**2.29E-07**	**1.88E-05**	
204	**2**	**Subsurface**	**Percent**		**81%**	**18%**	**0%**	**1%**		
204	3	Subsurface	Arsenic	1.10E+01	3.58E-06	7.77E-07	9.21E-13		4.36E-06	90%
204	3	Subsurface	PAH, Total	3.52E-02	5.58E-08	5.25E-08	7.54E-16		1.08E-07	2%
204	3	Subsurface	Uranium-238	2.31E+00	2.02E-07		6.53E-10	1.86E-07	3.88E-07	8%
204	**3**	**Subsurface**	**Totals**		**3.84E-06**	**8.30E-07**	**6.54E-10**	**1.86E-07**	**4.86E-06**	
204	**3**	**Subsurface**	**Percent**		**79%**	**17%**	**0%**	**4%**		
204	4	Subsurface	Arsenic	1.10E+01	3.58E-06	7.77E-07	9.21E-13		4.36E-06	92%
204	4	Subsurface	PAH, Total	2.33E-02	3.69E-08	3.47E-08	4.99E-16		7.17E-08	2%
204	4	Subsurface	Uranium-238	1.82E+00	1.59E-07		5.15E-10	1.46E-07	3.06E-07	6%
204	**4**	**Subsurface**	**Totals**		**3.78E-06**	**8.12E-07**	**5.16E-10**	**1.46E-07**	**4.74E-06**	
204	**4**	**Subsurface**	**Percent**		**80%**	**17%**	**0%**	**3%**		
204	5	Subsurface	Arsenic	5.67E+01	1.85E-05	4.01E-06	4.75E-12		2.25E-05	95%
204	5	Subsurface	Cobalt	1.04E+01			1.82E-12		1.82E-12	0%
204	5	Subsurface	PAH, Total	1.66E-02	2.63E-08	2.47E-08	3.55E-16		5.11E-08	0%
204	5	Subsurface	Uranium-238	6.60E+00	5.77E-07		1.87E-09	5.30E-07	1.11E-06	5%
204	**5**	**Subsurface**	**Totals**		**1.91E-05**	**4.03E-06**	**1.87E-09**	**5.30E-07**	**2.37E-05**	
204	**5**	**Subsurface**	**Percent**		**81%**	**17%**	**0%**	**2%**		
204	6	Subsurface	Arsenic	1.00E+01	3.26E-06	7.07E-07	8.37E-13		3.96E-06	85%
204	6	Subsurface	PAH, Total	3.25E-02	5.15E-08	4.84E-08	6.96E-16		1.00E-07	2%
204	6	Subsurface	Uranium-238	3.63E+00	3.18E-07		1.03E-09	2.92E-07	6.10E-07	13%
204	**6**	**Subsurface**	**Totals**		**3.63E-06**	**7.55E-07**	**1.03E-09**	**2.92E-07**	**4.67E-06**	
204	**6**	**Subsurface**	**Percent**		**78%**	**16%**	**0%**	**6%**		
204	7	Subsurface	Arsenic	1.70E+01	5.54E-06	1.20E-06	1.42E-12		6.74E-06	95%
204	7	Subsurface	Cobalt	1.50E+01			2.63E-12		2.63E-12	0%
204	7	Subsurface	PAH, Total	9.68E-03	1.53E-08	1.44E-08	2.07E-16		2.98E-08	0%
204	7	Subsurface	Uranium-238	2.04E+00	1.78E-07		5.77E-10	1.64E-07	3.43E-07	5%
204	**7**	**Subsurface**	**Totals**		**5.73E-06**	**1.22E-06**	**5.81E-10**	**1.64E-07**	**7.11E-06**	

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.40. ELCR for the Excavation Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
204	**7**	**Subsurface**	**Percent**		**81%**	**17%**	**0%**	**2%**		
204	8	Subsurface	Arsenic	8.40E+00	2.74E-06	5.94E-07	7.03E-13		3.33E-06	85%
204	8	Subsurface	Cobalt	1.40E+01			2.45E-12		2.45E-12	0%
204	8	Subsurface	PAH, Total	7.37E-02	1.17E-07	1.10E-07	1.58E-15		2.27E-07	6%
204	8	Subsurface	Uranium-238	2.01E+00	1.76E-07		5.69E-10	1.62E-07	3.38E-07	9%
204	**8**	**Subsurface**	**Totals**		**3.03E-06**	**7.03E-07**	**5.72E-10**	**1.62E-07**	**3.90E-06**	
204	**8**	**Subsurface**	**Percent**		**78%**	**18%**	**0%**	**4%**		
204	9	Subsurface	Arsenic	8.40E+00	2.74E-06	5.94E-07	7.03E-13		3.33E-06	17%
204	9	Subsurface	PAH, Total	5.01E+00	7.94E-06	7.47E-06	1.07E-13		1.54E-05	81%
204	9	Subsurface	Uranium-238	2.22E+00	1.94E-07		6.28E-10	1.79E-07	3.73E-07	2%
204	**9**	**Subsurface**	**Totals**		**1.09E-05**	**8.06E-06**	**6.29E-10**	**1.79E-07**	**1.91E-05**	
204	**9**	**Subsurface**	**Percent**		**57%**	**42%**	**0%**	**1%**		
204	10	Subsurface	PAH, Total	6.42E-02	1.02E-07	9.57E-08	1.37E-15		1.97E-07	17%
204	10	Subsurface	Cesium-137	2.83E-01	5.06E-09		3.57E-13	4.57E-07	4.62E-07	39%
204	10	Subsurface	Uranium-238	3.15E+00	2.76E-07		8.91E-10	2.53E-07	5.30E-07	45%
204	**10**	**Subsurface**	**Totals**		**3.82E-07**	**9.57E-08**	**8.91E-10**	**7.10E-07**	**1.19E-06**	
204	**10**	**Subsurface**	**Percent**		**32%**	**8%**	**0%**	**60%**		
204	11	Subsurface	Arsenic	8.80E+00	2.87E-06	6.22E-07	7.37E-13		3.49E-06	80%
204	11	Subsurface	PAH, Total	1.09E-01	1.73E-07	1.63E-07	2.34E-15		3.36E-07	8%
204	11	Subsurface	Uranium-238	3.09E+00	2.70E-07		8.74E-10	2.48E-07	5.20E-07	12%
204	**11**	**Subsurface**	**Totals**		**3.31E-06**	**7.85E-07**	**8.75E-10**	**2.48E-07**	**4.35E-06**	
204	**11**	**Subsurface**	**Percent**		**76%**	**18%**	**0%**	**6%**		
204	12	Subsurface	Arsenic	9.80E+00	3.19E-06	6.93E-07	8.20E-13		3.89E-06	76%
204	12	Subsurface	PAH, Total	6.43E-02	1.02E-07	9.58E-08	1.38E-15		1.98E-07	4%
204	12	Subsurface	Cesium-137	2.93E-01	5.24E-09		3.70E-13	4.73E-07	4.78E-07	9%
204	12	Subsurface	Uranium-238	3.26E+00	2.85E-07		9.22E-10	2.62E-07	5.48E-07	11%
204	**12**	**Subsurface**	**Totals**		**3.59E-06**	**7.88E-07**	**9.23E-10**	**7.35E-07**	**5.11E-06**	
204	**12**	**Subsurface**	**Percent**		**70%**	**15%**	**0%**	**14%**		
204	13	Subsurface	Arsenic	8.60E+00	2.80E-06	6.08E-07	7.20E-13		3.41E-06	57%
204	13	Subsurface	PAH, Total	5.05E-01	8.01E-07	7.53E-07	1.08E-14		1.55E-06	26%
204	13	Subsurface	Cesium-137	2.89E-01	5.16E-09		3.65E-13	4.67E-07	4.72E-07	8%
204	13	Subsurface	Uranium-238	2.98E+00	2.61E-07		8.43E-10	2.40E-07	5.01E-07	8%
204	**13**	**Subsurface**	**Totals**		**3.87E-06**	**1.36E-06**	**8.44E-10**	**7.06E-07**	**5.93E-06**	
204	**13**	**Subsurface**	**Percent**		**65%**	**23%**	**0%**	**12%**		
204	14	Subsurface	Arsenic	1.36E+02	4.43E-05	9.61E-06	1.14E-11		5.39E-05	98%
204	14	Subsurface	PAH, Total	1.28E-01	2.02E-07	1.90E-07	2.73E-15		3.92E-07	1%
204	14	Subsurface	Uranium-238	4.25E+00	3.72E-07		1.20E-09	3.42E-07	7.15E-07	1%
204	**14**	**Subsurface**	**Totals**		**4.49E-05**	**9.80E-06**	**1.21E-09**	**3.42E-07**	**5.50E-05**	
204	**14**	**Subsurface**	**Percent**		**82%**	**18%**	**0%**	**1%**		
204	15	Subsurface	PAH, Total	1.89E-01	2.99E-07	2.81E-07	4.04E-15		5.80E-07	23%
204	15	Subsurface	Cesium-137	6.30E-01	1.13E-08		7.96E-13	1.02E-06	1.03E-06	41%
204	15	Subsurface	Uranium-238	5.37E+00	4.70E-07		1.52E-09	4.32E-07	9.03E-07	36%
204	**15**	**Subsurface**	**Totals**		**7.80E-07**	**2.81E-07**	**1.52E-09**	**1.45E-06**	**2.51E-06**	
204	**15**	**Subsurface**	**Percent**		**31%**	**11%**	**0%**	**58%**		
204	16	Subsurface	Arsenic	8.20E+00	2.67E-06	5.79E-07	6.86E-13		3.25E-06	98%
204	16	Subsurface	PAH, Total	2.61E-02	4.14E-08	3.89E-08	5.59E-16		8.03E-08	2%
204	**16**	**Subsurface**	**Totals**		**2.71E-06**	**6.18E-07**	**6.87E-13**		**3.33E-06**	
204	**16**	**Subsurface**	**Percent**		**81%**	**19%**	**0%**			
204	17	Subsurface	Arsenic	9.60E+00	3.13E-06	6.78E-07	8.03E-13		3.81E-06	81%
204	17	Subsurface	PAH, Total	1.49E-01	2.35E-07	2.21E-07	3.18E-15		4.57E-07	10%
204	17	Subsurface	Uranium-238	2.50E+00	2.19E-07		7.07E-10	2.01E-07	4.20E-07	9%
204	**17**	**Subsurface**	**Totals**		**3.58E-06**	**9.00E-07**	**7.08E-10**	**2.01E-07**	**4.69E-06**	
204	**17**	**Subsurface**	**Percent**		**76%**	**19%**	**0%**	**4%**		
204	18	Subsurface	PAH, Total	2.13E-02	3.38E-08	3.17E-08	4.56E-16		6.55E-08	18%
204	18	Subsurface	Uranium-238	1.81E+00	1.58E-07		5.12E-10	1.46E-07	3.04E-07	82%
204	**18**	**Subsurface**	**Totals**		**1.92E-07**	**3.17E-08**	**5.12E-10**	**1.46E-07**	**3.70E-07**	
204	**18**	**Subsurface**	**Percent**		**52%**	**9%**	**0%**	**39%**		
204	19	Subsurface	Arsenic	1.20E+01	3.91E-06	8.48E-07	1.00E-12		4.76E-06	85%
204	19	Subsurface	PAH, Total	1.30E-01	2.06E-07	1.93E-07	2.78E-15		3.99E-07	7%
204	19	Subsurface	Uranium-238	2.65E+00	2.32E-07		7.50E-10	2.13E-07	4.46E-07	8%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.40. ELCR for the Excavation Worker (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
204	**19**	**Subsurface**	**Totals**		**4.35E-06**	**1.04E-06**	**7.51E-10**	**2.13E-07**	**5.61E-06**	
204	**19**	**Subsurface**	**Percent**		**78%**	**19%**	**0%**	**4%**		
204	20	Subsurface	Arsenic	1.40E+01	4.56E-06	9.89E-07	1.17E-12		5.55E-06	1%
204	20	Subsurface	Chromium	1.75E+02			2.86E-10		2.86E-10	0%
204	20	Subsurface	Cobalt	1.30E+01			2.28E-12		2.28E-12	0%
204	20	Subsurface	PCB, Total	7.90E+01	3.43E-05	3.47E-05	8.78E-13		6.91E-05	8%
204	20	Subsurface	Americium-241	3.71E+00	3.02E-07		1.66E-09	6.92E-08	3.73E-07	0%
204	20	Subsurface	Cesium-137	1.17E+00	2.09E-08		1.48E-12	1.89E-06	1.91E-06	0%
204	20	Subsurface	Protactinium-231	3.65E+01	4.83E-06		3.32E-08	3.13E-06	7.99E-06	1%
204	20	Subsurface	Uranium-234	4.45E+02	2.92E-05		1.48E-07	7.61E-08	2.95E-05	3%
204	20	Subsurface	Uranium-235	5.70E+01	3.90E-06		1.70E-08	2.22E-05	2.61E-05	3%
204	20	Subsurface	Uranium-238	4.39E+03	3.84E-04		1.24E-06	3.53E-04	7.38E-04	84%
204	**20**	**Subsurface**	**Totals**		**4.61E-04**	**3.57E-05**	**1.44E-06**	**3.80E-04**	**8.79E-04**	
204	**20**	**Subsurface**	**Percent**		**52%**	**4%**	**0%**	**43%**		
204	21	Subsurface	Arsenic	8.60E+00	2.80E-06	6.08E-07	7.20E-13		3.41E-06	99%
204	21	Subsurface	Cobalt	1.80E+01			3.15E-12		3.15E-12	0%
204	21	Subsurface	PAH, Total	1.62E-02	2.57E-08	2.42E-08	3.47E-16		4.99E-08	1%
204	**21**	**Subsurface**	**Totals**		**2.83E-06**	**6.32E-07**	**3.87E-12**		**3.46E-06**	
204	**21**	**Subsurface**	**Percent**		**82%**	**18%**	**0%**			
211	1	Subsurface	Arsenic	1.00E+01	3.26E-06	7.07E-07	8.37E-13		3.96E-06	10%
211	1	Subsurface	Cadmium	1.42E+01			4.96E-13		4.96E-13	0%
211	1	Subsurface	Chromium	4.84E+01			7.92E-11		7.92E-11	0%
211	1	Subsurface	Cobalt	4.95E+01			8.67E-12		8.67E-12	0%
211	1	Subsurface	PAH, Total	1.04E-01	1.65E-07	1.55E-07	2.22E-15		3.19E-07	1%
211	1	Subsurface	PCB, Total	1.00E+01	4.34E-06	4.40E-06	1.11E-13		8.74E-06	22%
211	1	Subsurface	Uranium-234	6.69E+01	4.40E-06		2.22E-08	1.14E-08	4.43E-06	11%
211	1	Subsurface	Uranium-235	3.86E+00	2.64E-07		1.15E-09	1.50E-06	1.77E-06	5%
211	1	Subsurface	Uranium-238	1.19E+02	1.04E-05		3.37E-08	9.57E-06	2.00E-05	51%
211	**1**	**Subsurface**	**Totals**		**2.28E-05**	**5.26E-06**	**5.71E-08**	**1.11E-05**	**3.92E-05**	
211	**1**	**Subsurface**	**Percent**		**58%**	**13%**	**0%**	**28%**		
224	1	Subsurface	Arsenic	1.00E+01	3.26E-06	7.07E-07	8.37E-13		3.96E-06	47%
224	1	Subsurface	Chromium	6.50E+01			1.06E-10		1.06E-10	0%
224	1	Subsurface	PAH, Total	5.95E-01	9.44E-07	8.87E-07	1.27E-14		1.83E-06	21%
224	1	Subsurface	Cesium-137	3.70E-01	6.61E-09		4.67E-13	5.98E-07	6.04E-07	7%
224	1	Subsurface	Uranium-238	1.39E+01	1.22E-06		3.93E-09	1.12E-06	2.34E-06	27%
224	**1**	**Subsurface**	**Totals**		**5.42E-06**	**1.59E-06**	**4.04E-09**	**1.72E-06**	**8.73E-06**	
224	**1**	**Subsurface**	**Percent**		**62%**	**18%**	**0%**	**20%**		
225	1	Subsurface	Arsenic	8.10E+00	2.64E-06	5.72E-07	6.78E-13		3.21E-06	72%
225	1	Subsurface	PAH, Total	7.79E-02	1.23E-07	1.16E-07	1.67E-15		2.39E-07	5%
225	1	Subsurface	Cesium-137	4.17E-01	7.45E-09		5.27E-13	6.74E-07	6.81E-07	15%
225	1	Subsurface	Uranium-238	2.04E+00	1.78E-07		5.77E-10	1.64E-07	3.43E-07	8%
225	**1**	**Subsurface**	**Totals**		**2.95E-06**	**6.88E-07**	**5.78E-10**	**8.38E-07**	**4.47E-06**	
225	**1**	**Subsurface**	**Percent**		**66%**	**15%**	**0%**	**19%**		
565	1	Subsurface	Cesium-137	4.00E-01	7.15E-09		5.05E-13	6.46E-07	6.53E-07	100%
565	**1**	**Subsurface**	**Totals**		**7.15E-09**		**5.05E-13**	**6.46E-07**	**6.53E-07**	
565	**1**	**Subsurface**	**Percent**		**1%**		**0%**	**99%**		

The percentages listed throughout this table under the "Percent" column represent the percent contributions for each COPC to the Total ELCR.
The percentages listed in the row beneath "Totals" represent the percent contributions for each pathway to the Total ELCR.

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.41. ELCR for the Future Hypothetical Residential Receptor

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
13	**1**	**Surface**	**Totals**						**0.00E+00**	
13	**1**	**Surface**	**Percent**							
13	2	Surface	Uranium-238	1.40E+00	3.09E-07		5.84E-09	2.49E-06	2.81E-06	100%
13	**2**	**Surface**	**Totals**		**3.09E-07**		**5.84E-09**	**2.49E-06**	**2.81E-06**	
13	**2**	**Surface**	**Percent**		**11%**		**0%**	**89%**		
13	3	Surface	PAH, Total	2.15E-02	2.26E-07	7.22E-07	6.79E-15		9.48E-07	100%
13	**3**	**Surface**	**Totals**		**2.26E-07**	**7.22E-07**	**6.79E-15**		**9.48E-07**	
13	**3**	**Surface**	**Percent**		**24%**	**76%**	**0%**			
13	4	Surface	PAH, Total	4.13E-01	4.34E-06	1.39E-05	1.30E-13		1.82E-05	12%
13	4	Surface	PCB, Total	1.05E+01	3.03E-05	1.04E-04	1.73E-12		1.35E-04	86%
13	4	Surface	Uranium-238	1.78E+00	3.92E-07		7.42E-09	3.17E-06	3.56E-06	2%
13	**4**	**Surface**	**Totals**		**3.50E-05**	**1.18E-04**	**7.42E-09**	**3.17E-06**	**1.57E-04**	
13	**4**	**Surface**	**Percent**		**22%**	**76%**	**0%**	**2%**		
13	5	Surface	Chromium	1.38E+01			3.32E-10		3.32E-10	0%
13	5	Surface	PAH, Total	4.41E-01	4.63E-06	1.48E-05	1.39E-13		1.94E-05	8%
13	5	Surface	PCB, Total	6.66E+00	1.92E-05	6.60E-05	1.09E-12		8.51E-05	37%
13	5	Surface	Neptunium-237	3.88E-01	6.13E-08		1.96E-09	4.96E-06	5.03E-06	2%
13	5	Surface	Technetium-99	1.07E+02	8.66E-07		7.16E-10	1.32E-07	9.99E-07	0%
13	5	Surface	Uranium-234	2.57E+01	4.26E-06		1.26E-07	9.73E-08	4.49E-06	2%
13	5	Surface	Uranium-235	2.95E+00	5.08E-07		1.30E-08	2.54E-05	2.59E-05	11%
13	5	Surface	Uranium-238	4.60E+01	1.01E-05		1.92E-07	8.18E-05	9.21E-05	40%
13	**5**	**Surface**	**Totals**		**3.96E-05**	**8.08E-05**	**3.34E-07**	**1.12E-04**	**2.33E-04**	
13	**5**	**Surface**	**Percent**		**17%**	**35%**	**0%**	**48%**		
13	6	Surface	PAH, Total	6.51E-01	6.84E-06	2.19E-05	2.06E-13		2.87E-05	10%
13	6	Surface	PCB, Total	1.08E+01	3.10E-05	1.07E-04	1.76E-12		1.38E-04	49%
13	6	Surface	Neptunium-237	1.25E+00	1.97E-07		6.31E-09	1.60E-05	1.62E-05	6%
13	6	Surface	Technetium-99	9.50E+01	7.71E-07		6.38E-10	1.18E-07	8.90E-07	0%
13	6	Surface	Uranium-234	2.04E+01	3.37E-06		9.97E-08	7.71E-08	3.55E-06	1%
13	6	Surface	Uranium-235	1.40E+00	2.41E-07		6.15E-09	1.20E-05	1.23E-05	4%
13	6	Surface	Uranium-238	4.17E+01	9.20E-06		1.74E-07	7.42E-05	8.36E-05	30%
13	**6**	**Surface**	**Totals**		**5.16E-05**	**1.29E-04**	**2.87E-07**	**1.02E-04**	**2.83E-04**	
13	**6**	**Surface**	**Percent**		**18%**	**45%**	**0%**	**36%**		
13	7	Surface	Uranium-238	1.30E+00	2.87E-07		5.43E-09	2.31E-06	2.61E-06	100%
13	**7**	**Surface**	**Totals**		**2.87E-07**		**5.43E-09**	**2.31E-06**	**2.61E-06**	
13	**7**	**Surface**	**Percent**		**11%**		**0%**	**89%**		
13	8	Surface	PAH, Total	1.22E-02	1.28E-07	4.10E-07	3.85E-15		5.38E-07	100%
13	**8**	**Surface**	**Totals**		**1.28E-07**	**4.10E-07**	**3.85E-15**		**5.38E-07**	
13	**8**	**Surface**	**Percent**		**24%**	**76%**	**0%**			
13	9	Surface	Chromium	1.43E+01			3.46E-10		3.46E-10	0%
13	9	Surface	PAH, Total	2.65E-02	2.78E-07	8.90E-07	8.37E-15		1.17E-06	6%
13	9	Surface	Neptunium-237	6.88E-01	1.09E-07		3.48E-09	8.80E-06	8.91E-06	49%
13	9	Surface	Uranium-238	4.07E+00	8.98E-07		1.70E-08	7.25E-06	8.16E-06	45%
13	**9**	**Surface**	**Totals**		**1.28E-06**	**8.90E-07**	**2.08E-08**	**1.60E-05**	**1.82E-05**	
13	**9**	**Surface**	**Percent**		**7%**	**5%**	**0%**	**88%**		
13	**10**	**Surface**	**Totals**						**0.00E+00**	
13	**10**	**Surface**	**Percent**							
13	11	Surface	PCB, Total	1.03E+01	2.97E-05	1.02E-04	1.70E-12		1.32E-04	100%
13	**11**	**Surface**	**Totals**		**2.97E-05**	**1.02E-04**	**1.70E-12**		**1.32E-04**	
13	**11**	**Surface**	**Percent**		**22%**	**78%**	**0%**			
13	**12**	**Surface**	**Totals**						**0.00E+00**	
13	**12**	**Surface**	**Percent**							
13	**13**	**Surface**	**Totals**						**0.00E+00**	
13	**13**	**Surface**	**Percent**							
13	14	Surface	PAH, Total	3.27E-02	3.43E-07	1.10E-06	1.03E-14		1.44E-06	2%
13	14	Surface	PCB, Total	6.46E+00	1.86E-05	6.40E-05	1.06E-12		8.26E-05	94%
13	14	Surface	Uranium-238	2.07E+00	4.57E-07		8.64E-09	3.68E-06	4.15E-06	5%
13	**14**	**Surface**	**Totals**		**1.94E-05**	**6.51E-05**	**8.64E-09**	**3.68E-06**	**8.82E-05**	
13	**14**	**Surface**	**Percent**		**22%**	**74%**	**0%**	**4%**		

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.41. ELCR for the Future Hypothetical Residential Receptor (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
15	1	Surface	Arsenic	1.27E+01	2.73E-05	2.02E-05	1.56E-11		4.75E-05	41%
15	1	Surface	Cadmium	1.56E+01			8.07E-12		8.07E-12	0%
15	1	Surface	Chromium	8.21E+01			1.98E-09		1.98E-09	0%
15	1	Surface	Nickel	1.32E+02			9.84E-12		9.84E-12	0%
15	1	Surface	PAH, Total	1.71E+00	1.80E-05	5.76E-05	5.42E-13		7.56E-05	60%
15	1	Surface	Uranium-238	1.85E+00	4.08E-07		7.72E-09	3.29E-06	3.71E-06	3%
15	**1**	**Surface**	**Totals**		**4.57E-05**	**7.78E-05**	**9.74E-09**	**3.29E-06**	**1.27E-04**	
15	**1**	**Surface**	**Percent**		**36%**	**61%**	**0%**	**3%**		
15	2	Surface	Arsenic	1.63E+01	3.51E-05	2.59E-05	2.01E-11		6.10E-05	35%
15	2	Surface	Chromium	5.90E+01			1.42E-09		1.42E-09	0%
15	2	Surface	Nickel	1.97E+02			1.47E-11		1.47E-11	0%
15	2	Surface	PAH, Total	2.11E+00	2.21E-05	7.08E-05	6.66E-13		9.29E-05	50%
15	2	Surface	PCB, Total	3.30E-01	9.49E-07	3.27E-06	5.41E-14		4.22E-06	2%
15	2	Surface	Uranium-234	6.51E+00	1.08E-06		3.19E-08	2.46E-08	1.14E-06	1%
15	2	Surface	Uranium-235	3.80E-01	6.55E-08		1.67E-09	3.27E-06	3.34E-06	2%
15	2	Surface	Uranium-238	1.21E+01	2.67E-06		5.05E-08	2.15E-05	2.43E-05	14%
15	**2**	**Surface**	**Totals**		**6.20E-05**	**1.00E-04**	**8.55E-08**	**2.48E-05**	**1.87E-04**	
15	**2**	**Surface**	**Percent**		**33%**	**53%**	**0%**	**13%**		
15	3	Surface	Arsenic	2.74E+01	5.91E-05	4.36E-05	3.38E-11		1.03E-04	5%
15	3	Surface	Cadmium	1.25E+01			6.47E-12		6.47E-12	0%
15	3	Surface	Chromium	7.53E+01			1.82E-09		1.82E-09	0%
15	3	Surface	Cobalt	3.41E+01			8.82E-11		8.82E-11	0%
15	3	Surface	Nickel	8.38E+02			6.26E-11		6.26E-11	0%
15	3	Surface	PAH, Total	1.45E+00	1.53E-05	4.88E-05	4.59E-13		6.41E-05	3%
15	3	Surface	PCB, Total	6.82E+00	1.96E-05	6.76E-05	1.12E-12		8.73E-05	4%
15	3	Surface	Neptunium-237	3.24E+00	5.11E-07		1.64E-08	4.14E-05	4.19E-05	2%
15	3	Surface	Technetium-99	2.90E+02	2.35E-06		1.95E-09	3.59E-07	2.72E-06	0%
15	3	Surface	Thorium-230	5.14E+00	9.55E-07		3.09E-08	6.50E-08	1.05E-06	0%
15	3	Surface	Uranium-234	1.40E+02	2.32E-05		6.86E-07	5.30E-07	2.44E-05	1%
15	3	Surface	Uranium-235	1.49E+01	2.57E-06		6.56E-08	1.28E-04	1.31E-04	6%
15	3	Surface	Uranium-238	8.68E+02	1.91E-04		3.62E-06	1.54E-03	1.74E-03	80%
15	**3**	**Surface**	**Totals**		**3.15E-04**	**1.60E-04**	**4.42E-06**	**1.71E-03**	**2.20E-03**	
15	**3**	**Surface**	**Percent**		**14%**	**7%**	**0%**	**78%**		
15	4	Surface	Arsenic	3.37E+01	7.27E-05	5.36E-05	4.16E-11		1.26E-04	20%
15	4	Surface	Cadmium	1.86E+01			9.61E-12		9.61E-12	0%
15	4	Surface	Chromium	9.02E+01			2.18E-09		2.18E-09	0%
15	4	Surface	Nickel	1.24E+03			9.27E-11		9.27E-11	0%
15	4	Surface	PAH, Total	1.75E+00	1.84E-05	5.88E-05	5.53E-13		7.71E-05	12%
15	4	Surface	PCB, Total	3.13E+01	9.01E-05	3.10E-04	5.14E-12		4.00E-04	64%
15	4	Surface	Neptunium-237	6.60E-01	1.04E-07		3.34E-09	8.44E-06	8.55E-06	1%
15	4	Surface	Uranium-234	7.93E+00	1.31E-06		3.88E-08	3.00E-08	1.38E-06	0%
15	4	Surface	Uranium-235	3.64E-01	6.28E-08		1.60E-09	3.14E-06	3.20E-06	1%
15	4	Surface	Uranium-238	1.35E+01	2.98E-06		5.64E-08	2.41E-05	2.71E-05	4%
15	**4**	**Surface**	**Totals**		**1.86E-04**	**4.23E-04**	**1.03E-07**	**3.57E-05**	**6.43E-04**	
15	**4**	**Surface**	**Percent**		**29%**	**66%**	**0%**	**6%**		
15	5	Surface	Arsenic	1.28E+01	2.76E-05	2.04E-05	1.58E-11		4.80E-05	11%
15	5	Surface	Cadmium	1.46E+01			7.54E-12		7.54E-12	0%
15	5	Surface	Chromium	8.43E+01			2.03E-09		2.03E-09	0%
15	5	Surface	Nickel	3.53E+02			2.63E-11		2.63E-11	0%
15	5	Surface	PAH, Total	5.11E-01	5.36E-06	1.72E-05	1.61E-13		2.25E-05	5%
15	5	Surface	PCB, Total	2.51E+01	7.23E-05	2.49E-04	4.12E-12		3.21E-04	76%
15	5	Surface	Neptunium-237	6.90E-01	1.09E-07		3.49E-09	8.82E-06	8.94E-06	2%
15	5	Surface	Uranium-235	4.60E-01	7.93E-08		2.03E-09	3.96E-06	4.04E-06	1%
15	5	Surface	Uranium-238	1.03E+01	2.27E-06		4.30E-08	1.83E-05	2.07E-05	5%
15	**5**	**Surface**	**Totals**		**1.08E-04**	**2.87E-04**	**5.06E-08**	**3.11E-05**	**4.25E-04**	
15	**5**	**Surface**	**Percent**		**25%**	**67%**	**0%**	**7%**		
15	6	Surface	Arsenic	1.24E+01	2.68E-05	1.98E-05	1.54E-11		4.66E-05	20%
15	6	Surface	Cadmium	1.64E+01			8.45E-12		8.45E-12	0%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.41. ELCR for the Future Hypothetical Residential Receptor (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
15	6	Surface	Chromium	8.25E+01			1.99E-09		1.99E-09	0%
15	6	Surface	Cobalt	1.62E+01			4.19E-11		4.19E-11	0%
15	6	Surface	Nickel	3.00E+02			2.24E-11		2.24E-11	0%
15	6	Surface	PAH, Total	1.62E+00	1.70E-05	5.45E-05	5.13E-13		7.16E-05	29%
15	6	Surface	PCB, Total	6.17E+00	1.77E-05	6.11E-05	1.01E-12		7.88E-05	34%
15	6	Surface	Neptunium-237	6.40E-01	1.01E-07		3.24E-09	8.19E-06	8.29E-06	4%
15	6	Surface	Uranium-234	8.74E+00	1.45E-06		4.28E-08	3.31E-08	1.52E-06	1%
15	6	Surface	Uranium-235	5.70E-01	9.83E-08		2.51E-09	4.91E-06	5.01E-06	2%
15	6	Surface	Uranium-238	1.54E+01	3.40E-06		6.43E-08	2.74E-05	3.09E-05	13%
15	**6**	**Surface**	**Totals**		**6.66E-05**	**1.35E-04**	**1.15E-07**	**4.05E-05**	**2.43E-04**	
15	**6**	**Surface**	**Percent**		**27%**	**56%**	**0%**	**17%**		
15	7	Surface	Arsenic	1.61E+01	3.47E-05	2.56E-05	1.99E-11		6.03E-05	15%
15	7	Surface	Cadmium	1.80E+01			9.30E-12		9.30E-12	0%
15	7	Surface	Chromium	7.97E+01			1.92E-09		1.92E-09	0%
15	7	Surface	Nickel	5.59E+02			4.17E-11		4.17E-11	0%
15	7	Surface	PAH, Total	1.59E-01	1.67E-06	5.34E-06	5.02E-14		7.00E-06	2%
15	7	Surface	PCB, Total	2.57E+01	7.38E-05	2.54E-04	4.21E-12		3.28E-04	79%
15	7	Surface	Uranium-234	6.49E+00	1.08E-06		3.18E-08	2.46E-08	1.13E-06	0%
15	7	Surface	Uranium-235	4.50E-01	7.76E-08		1.98E-09	3.88E-06	3.96E-06	1%
15	7	Surface	Uranium-238	8.05E+00	1.78E-06		3.36E-08	1.43E-05	1.61E-05	4%
15	**7**	**Surface**	**Totals**		**1.13E-04**	**2.85E-04**	**6.94E-08**	**1.82E-05**	**4.16E-04**	
15	**7**	**Surface**	**Percent**		**27%**	**68%**	**0%**	**4%**		
15	8	Surface	Arsenic	1.17E+01	2.51E-05	1.86E-05	1.44E-11		4.37E-05	31%
15	8	Surface	Cadmium	1.68E+01			8.70E-12		8.70E-12	0%
15	8	Surface	Chromium	7.74E+01			1.87E-09		1.87E-09	0%
15	8	Surface	Nickel	1.82E+02			1.36E-11		1.36E-11	0%
15	8	Surface	PAH, Total	3.59E-01	3.77E-06	1.21E-05	1.13E-13		1.58E-05	11%
15	8	Surface	PCB, Total	5.01E+00	1.44E-05	4.96E-05	8.21E-13		6.40E-05	46%
15	8	Surface	Neptunium-237	3.65E-01	5.76E-08		1.85E-09	4.67E-06	4.73E-06	3%
15	8	Surface	Uranium-238	6.64E+00	1.47E-06		2.77E-08	1.18E-05	1.33E-05	10%
15	**8**	**Surface**	**Totals**		**4.48E-05**	**8.02E-05**	**3.15E-08**	**1.65E-05**	**1.42E-04**	
15	**8**	**Surface**	**Percent**		**32%**	**57%**	**0%**	**12%**		
15	9	Surface	Arsenic	1.10E+01	2.38E-05	1.76E-05	1.36E-11		4.14E-05	28%
15	9	Surface	Cadmium	1.81E+01			9.36E-12		9.36E-12	0%
15	9	Surface	Chromium	9.56E+01			2.31E-09		2.31E-09	0%
15	9	Surface	Nickel	1.49E+02			1.11E-11		1.11E-11	0%
15	9	Surface	PAH, Total	2.38E-01	2.50E-06	8.01E-06	7.53E-14		1.05E-05	7%
15	9	Surface	PCB, Total	6.31E+00	1.81E-05	6.25E-05	1.03E-12		8.07E-05	56%
15	9	Surface	Uranium-238	7.12E+00	1.57E-06		2.97E-08	1.27E-05	1.43E-05	10%
15	**9**	**Surface**	**Totals**		**4.60E-05**	**8.81E-05**	**3.21E-08**	**1.27E-05**	**1.47E-04**	
15	**9**	**Surface**	**Percent**		**31%**	**60%**	**0%**	**9%**		
15	10	Surface	Cadmium	1.67E+01			8.63E-12		8.63E-12	0%
15	10	Surface	Chromium	3.55E+01			8.57E-10		8.57E-10	0%
15	10	Surface	Nickel	2.26E+02			1.69E-11		1.69E-11	0%
15	10	Surface	PAH, Total	1.28E-01	1.35E-06	4.31E-06	4.06E-14		5.66E-06	100%
15	**10**	**Surface**	**Totals**		**1.35E-06**	**4.31E-06**	**8.82E-10**		**5.66E-06**	
15	**10**	**Surface**	**Percent**		**24%**	**76%**	**0%**			
26	1	Surface	Chromium	1.67E+01			4.03E-10		4.03E-10	0%
26	1	Surface	PAH, Total	1.97E-01	2.07E-06	6.62E-06	6.22E-14		8.69E-06	3%
26	1	Surface	PCB, Total	9.40E+00	2.70E-05	9.32E-05	1.54E-12		1.20E-04	43%
26	1	Surface	Uranium-234	7.78E+00	1.29E-06		3.81E-08	2.94E-08	1.36E-06	0%
26	1	Surface	Uranium-235	1.23E+00	2.12E-07		5.42E-09	1.06E-05	1.08E-05	4%
26	1	Surface	Uranium-238	6.75E+01	1.49E-05		2.82E-07	1.20E-04	1.35E-04	49%
26	**1**	**Surface**	**Totals**		**4.55E-05**	**9.98E-05**	**3.26E-07**	**1.31E-04**	**2.76E-04**	
26	**1**	**Surface**	**Percent**		**16%**	**36%**	**0%**	**47%**		
26	2	Surface	Arsenic	4.23E+01	9.12E-05	6.73E-05	5.22E-11		1.59E-04	25%
26	2	Surface	Beryllium	1.13E+01			7.76E-12		7.76E-12	0%
26	2	Surface	Chromium	4.12E+01			9.95E-10		9.95E-10	0%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.41. ELCR for the Future Hypothetical Residential Receptor (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
26	2	Surface	Cobalt	6.59E+01			1.70E-10		1.70E-10	0%
26	2	Surface	Nickel	1.03E+02			7.67E-12		7.67E-12	0%
26	2	Surface	PCB, Total	3.25E+00	9.36E-06	3.22E-05	5.33E-13		4.16E-05	7%
26	2	Surface	Cesium-137	9.52E+00	3.42E-07		1.41E-10	2.71E-04	2.72E-04	43%
26	2	Surface	Neptunium-237	2.15E-01	3.40E-08		1.09E-09	2.75E-06	2.78E-06	0%
26	2	Surface	Radium-228	1.69E+00	1.14E-06		3.96E-09	3.11E-05	3.22E-05	5%
26	2	Surface	Thorium-230	3.59E+00	6.68E-07		2.16E-08	4.54E-08	7.35E-07	0%
26	2	Surface	Uranium-234	1.98E+01	3.28E-06		9.68E-08	7.48E-08	3.45E-06	1%
26	2	Surface	Uranium-235	2.36E+00	4.07E-07		1.04E-08	2.03E-05	2.08E-05	3%
26	2	Surface	Uranium-238	5.01E+01	1.10E-05		2.09E-07	8.91E-05	1.00E-04	16%
26	**2**	**Surface**	**Totals**		**1.17E-04**	**9.96E-05**	**3.44E-07**	**4.15E-04**	**6.33E-04**	
26	**2**	**Surface**	**Percent**		**19%**	**16%**	**0%**	**66%**		
26	3	Surface	Arsenic	7.56E+01	1.63E-04	1.20E-04	9.33E-11		2.83E-04	50%
26	3	Surface	Chromium	4.56E+01			1.10E-09		1.10E-09	0%
26	3	Surface	PAH, Total	3.30E-01	3.47E-06	1.11E-05	1.04E-13		1.46E-05	3%
26	3	Surface	PCB, Total	8.91E+00	2.56E-05	8.83E-05	1.46E-12		1.14E-04	20%
26	3	Surface	Cesium-137	4.51E+00	1.62E-07		6.70E-11	1.29E-04	1.29E-04	23%
26	3	Surface	Neptunium-237	3.70E-01	5.84E-08		1.87E-09	4.73E-06	4.79E-06	1%
26	3	Surface	Uranium-234	5.02E+00	8.32E-07		2.46E-08	1.90E-08	8.75E-07	0%
26	3	Surface	Uranium-235	3.15E-01	5.43E-08		1.39E-09	2.71E-06	2.77E-06	0%
26	3	Surface	Uranium-238	7.00E+00	1.54E-06		2.92E-08	1.25E-05	1.40E-05	2%
26	**3**	**Surface**	**Totals**		**1.95E-04**	**2.20E-04**	**5.83E-08**	**1.49E-04**	**5.63E-04**	
26	**3**	**Surface**	**Percent**		**35%**	**39%**	**0%**	**26%**		
26	4	Surface	Arsenic	6.01E+01	1.30E-04	9.58E-05	7.43E-11		2.25E-04	9%
26	4	Surface	Chromium	1.14E+02			2.76E-09		2.76E-09	0%
26	4	Surface	Nickel	8.10E+01			6.05E-12		6.05E-12	0%
26	4	Surface	PAH, Total	5.53E+00	5.80E-05	1.86E-04	1.75E-12		2.44E-04	10%
26	4	Surface	PCB, Total	7.95E+00	2.29E-05	7.88E-05	1.30E-12		1.02E-04	4%
26	4	Surface	Cesium-137	1.02E+00	3.67E-08		1.52E-11	2.91E-05	2.92E-05	1%
26	4	Surface	Neptunium-237	2.80E+00	4.41E-07		1.41E-08	3.57E-05	3.62E-05	1%
26	4	Surface	Plutonium-239/240	1.35E+01	3.45E-06		1.32E-07	4.22E-08	3.62E-06	0%
26	4	Surface	Technetium-99	8.36E+02	6.79E-06		5.61E-09	1.04E-06	7.83E-06	0%
26	4	Surface	Thorium-230	5.48E+01	1.02E-05		3.29E-07	6.92E-07	1.12E-05	0%
26	4	Surface	Uranium-234	2.15E+02	3.57E-05		1.05E-06	8.15E-07	3.76E-05	1%
26	4	Surface	Uranium-235	1.52E+01	2.61E-06		6.67E-08	1.31E-04	1.33E-04	5%
26	4	Surface	Uranium-238	8.49E+02	1.87E-04		3.55E-06	1.51E-03	1.70E-03	67%
26	**4**	**Surface**	**Totals**		**4.57E-04**	**3.60E-04**	**5.15E-06**	**1.71E-03**	**2.53E-03**	
26	**4**	**Surface**	**Percent**		**18%**	**14%**	**0%**	**68%**		
77	1	Surface	Chromium	8.30E+01			2.00E-09		2.00E-09	0%
77	1	Surface	PAH, Total	7.02E-02	7.37E-07	2.36E-06	2.22E-14		3.10E-06	3%
77	1	Surface	PCB, Total	5.00E+00	1.44E-05	4.96E-05	8.20E-13		6.39E-05	64%
77	1	Surface	Thorium-230	1.03E+01	1.91E-06		6.19E-08	1.30E-07	2.11E-06	2%
77	1	Surface	Uranium-238	1.53E+01	3.38E-06		6.39E-08	2.72E-05	3.07E-05	31%
77	**1**	**Surface**	**Totals**		**2.04E-05**	**5.19E-05**	**1.28E-07**	**2.74E-05**	**9.98E-05**	
77	**1**	**Surface**	**Percent**		**20%**	**52%**	**0%**	**27%**		
80	1	Surface	Dioxins/Furans, Total	8.82E-05	1.65E-05	1.22E-05	9.63E-13		2.87E-05	2%
80	1	Surface	PCB, Total	1.20E+02	3.45E-04	1.19E-03	1.97E-11		1.53E-03	98%
80	**1**	**Surface**	**Totals**		**3.62E-04**	**1.20E-03**	**2.06E-11**		**1.56E-03**	
80	**1**	**Surface**	**Percent**		**23%**	**77%**	**0%**			
80	2	Surface	Chromium	1.65E+02			3.98E-09		3.98E-09	0%
80	2	Surface	Cobalt	1.90E+01			4.91E-11		4.91E-11	0%
80	2	Surface	PAH, Total	7.21E-01	7.58E-06	2.42E-05	2.28E-13		3.18E-05	1%
80	2	Surface	PCB, Total	1.26E+01	3.62E-05	1.25E-04	2.07E-12		1.61E-04	4%
80	2	Surface	Americium-241	6.40E+00	1.29E-06		4.16E-08	2.60E-06	3.93E-06	0%
80	2	Surface	Cesium-137	8.40E-01	3.02E-08		1.25E-11	2.39E-05	2.40E-05	1%
80	2	Surface	Neptunium-237	5.05E-01	7.97E-08		2.55E-09	6.46E-06	6.54E-06	0%
80	2	Surface	Uranium-234	2.29E+02	3.80E-05		1.12E-06	8.67E-07	3.99E-05	1%
80	2	Surface	Uranium-235	3.00E+01	5.17E-06		1.32E-07	2.58E-04	2.64E-04	6%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.41. ELCR for the Future Hypothetical Residential Receptor (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
80	2	Surface	Uranium-238	1.92E+03	4.24E-04		8.02E-06	3.42E-03	3.85E-03	88%
80	**2**	**Surface**	**Totals**		**5.12E-04**	**1.49E-04**	**9.32E-06**	**3.71E-03**	**4.38E-03**	
80	**2**	**Surface**	**Percent**		**12%**	**3%**	**0%**	**85%**		
80	3	Surface	Chromium	1.81E+01			4.38E-10		4.38E-10	0%
80	3	Surface	PCB, Total	5.66E+02	1.63E-03	5.61E-03	9.28E-11		7.24E-03	100%
80	3	Surface	Uranium-238	1.59E+00	3.51E-07		6.64E-09	2.83E-06	3.19E-06	0%
80	**3**	**Surface**	**Totals**		**1.63E-03**	**5.61E-03**	**7.17E-09**	**2.83E-06**	**7.24E-03**	
80	**3**	**Surface**	**Percent**		**22%**	**77%**	**0%**	**0%**		
204	1	Surface	Chromium	1.42E+01			3.42E-10		3.42E-10	0%
204	1	Surface	PAH, Total	4.93E-01	5.18E-06	1.66E-05	1.56E-13		2.17E-05	89%
204	1	Surface	Uranium-238	1.27E+00	2.81E-07		5.32E-09	2.27E-06	2.55E-06	10%
204	**1**	**Surface**	**Totals**		**5.46E-06**	**1.66E-05**	**5.66E-09**	**2.27E-06**	**2.43E-05**	
204	**1**	**Surface**	**Percent**		**22%**	**68%**	**0%**	**9%**		
204	2	Surface	Arsenic	4.59E+01	9.91E-05	7.31E-05	5.67E-11		1.72E-04	94%
204	2	Surface	Chromium	1.84E+01			4.44E-10		4.44E-10	0%
204	2	Surface	PAH, Total	6.20E-02	6.51E-07	2.08E-06	1.96E-14		2.73E-06	1%
204	2	Surface	Uranium-238	3.92E+00	8.65E-07		1.64E-08	6.98E-06	7.86E-06	4%
204	**2**	**Surface**	**Totals**		**1.01E-04**	**7.52E-05**	**1.69E-08**	**6.98E-06**	**1.83E-04**	
204	**2**	**Surface**	**Percent**		**55%**	**41%**	**0%**	**4%**		
204	3	Surface	Chromium	1.80E+01			4.34E-10		4.34E-10	0%
204	3	Surface	PAH, Total	3.52E-02	3.70E-07	1.18E-06	1.11E-14		1.55E-06	25%
204	3	Surface	Uranium-238	2.31E+00	5.10E-07		9.64E-09	4.11E-06	4.63E-06	75%
204	**3**	**Surface**	**Totals**		**8.79E-07**	**1.18E-06**	**1.01E-08**	**4.11E-06**	**6.18E-06**	
204	**3**	**Surface**	**Percent**		**14%**	**19%**	**0%**	**66%**		
204	4	Surface	PAH, Total	2.33E-02	2.45E-07	7.83E-07	7.36E-15		1.03E-06	22%
204	4	Surface	Uranium-238	1.82E+00	4.02E-07		7.60E-09	3.24E-06	3.65E-06	78%
204	**4**	**Surface**	**Totals**		**6.46E-07**	**7.83E-07**	**7.60E-09**	**3.24E-06**	**4.68E-06**	
204	**4**	**Surface**	**Percent**		**14%**	**17%**	**0%**	**69%**		
204	5	Surface	Arsenic	5.67E+01	1.22E-04	9.04E-05	7.01E-11		2.13E-04	95%
204	5	Surface	Chromium	1.61E+01			3.88E-10		3.88E-10	0%
204	5	Surface	PAH, Total	2.04E-02	2.14E-07	6.85E-07	6.45E-15		8.99E-07	0%
204	5	Surface	Uranium-238	5.65E+00	1.25E-06		2.36E-08	1.01E-05	1.13E-05	5%
204	**5**	**Surface**	**Totals**		**1.24E-04**	**9.10E-05**	**2.40E-08**	**1.01E-05**	**2.25E-04**	
204	**5**	**Surface**	**Percent**		**55%**	**40%**	**0%**	**4%**		
204	6	Surface	PAH, Total	3.25E-02	3.41E-07	1.09E-06	1.03E-14		1.43E-06	16%
204	6	Surface	Uranium-238	3.63E+00	8.01E-07		1.52E-08	6.46E-06	7.28E-06	84%
204	**6**	**Surface**	**Totals**		**1.14E-06**	**1.09E-06**	**1.52E-08**	**6.46E-06**	**8.71E-06**	
204	**6**	**Surface**	**Percent**		**13%**	**13%**	**0%**	**74%**		
204	7	Surface	PAH, Total	9.68E-03	1.02E-07	3.25E-07	3.06E-15		4.27E-07	9%
204	7	Surface	Uranium-238	2.04E+00	4.50E-07		8.52E-09	3.63E-06	4.09E-06	91%
204	**7**	**Surface**	**Totals**		**5.52E-07**	**3.25E-07**	**8.52E-09**	**3.63E-06**	**4.52E-06**	
204	**7**	**Surface**	**Percent**		**12%**	**7%**	**0%**	**80%**		
204	8	Surface	Chromium	1.70E+01			4.10E-10		4.10E-10	0%
204	8	Surface	Cobalt	1.40E+01			3.62E-11		3.62E-11	0%
204	8	Surface	PAH, Total	7.37E-02	7.73E-07	2.47E-06	2.33E-14		3.25E-06	45%
204	8	Surface	Uranium-238	2.01E+00	4.43E-07		8.39E-09	3.58E-06	4.03E-06	55%
204	**8**	**Surface**	**Totals**		**1.22E-06**	**2.47E-06**	**8.84E-09**	**3.58E-06**	**7.28E-06**	
204	**8**	**Surface**	**Percent**		**17%**	**34%**	**0%**	**49%**		
204	9	Surface	Chromium	1.80E+01			4.34E-10		4.34E-10	0%
204	9	Surface	PAH, Total	5.01E+00	5.26E-05	1.68E-04	1.58E-12		2.21E-04	98%
204	9	Surface	Uranium-238	2.22E+00	4.90E-07		9.27E-09	3.95E-06	4.45E-06	2%
204	**9**	**Surface**	**Totals**		**5.31E-05**	**1.68E-04**	**9.70E-09**	**3.95E-06**	**2.25E-04**	
204	**9**	**Surface**	**Percent**		**24%**	**75%**	**0%**	**2%**		
204	10	Surface	PAH, Total	6.42E-02	6.74E-07	2.16E-06	2.03E-14		2.83E-06	31%
204	10	Surface	Uranium-238	3.15E+00	6.95E-07		1.31E-08	5.61E-06	6.32E-06	69%
204	**10**	**Surface**	**Totals**		**1.37E-06**	**2.16E-06**	**1.31E-08**	**5.61E-06**	**9.15E-06**	
204	**10**	**Surface**	**Percent**		**15%**	**24%**	**0%**	**61%**		
204	11	Surface	PAH, Total	8.95E-02	9.40E-07	3.01E-06	2.83E-14		3.95E-06	39%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.41. ELCR for the Future Hypothetical Residential Receptor (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
204	11	Surface	Uranium-238	3.09E+00	6.82E-07		1.29E-08	5.50E-06	6.20E-06	61%
204	**11**	**Surface**	**Totals**		**1.62E-06**	**3.01E-06**	**1.29E-08**	**5.50E-06**	**1.02E-05**	
204	**11**	**Surface**	**Percent**		**16%**	**30%**	**0%**	**54%**		
204	12	Surface	PAH, Total	6.43E-02	6.75E-07	2.16E-06	2.03E-14		2.84E-06	30%
204	12	Surface	Uranium-238	3.26E+00	7.19E-07		1.36E-08	5.80E-06	6.54E-06	70%
204	**12**	**Surface**	**Totals**		**1.39E-06**	**2.16E-06**	**1.36E-08**	**5.80E-06**	**9.38E-06**	
204	**12**	**Surface**	**Percent**		**15%**	**23%**	**0%**	**62%**		
204	13	Surface	Chromium	1.70E+01			4.10E-10		4.10E-10	0%
204	13	Surface	PAH, Total	5.05E-01	5.30E-06	1.70E-05	1.60E-13		2.23E-05	79%
204	13	Surface	Uranium-238	2.98E+00	6.58E-07		1.24E-08	5.30E-06	5.97E-06	21%
204	**13**	**Surface**	**Totals**		**5.96E-06**	**1.70E-05**	**1.28E-08**	**5.30E-06**	**2.83E-05**	
204	**13**	**Surface**	**Percent**		**21%**	**60%**	**0%**	**19%**		
204	14	Surface	Arsenic	1.36E+02	2.93E-04	2.17E-04	1.68E-10		5.10E-04	97%
204	14	Surface	Chromium	1.70E+01			4.10E-10		4.10E-10	0%
204	14	Surface	PAH, Total	1.28E-01	1.34E-06	4.29E-06	4.03E-14		5.63E-06	1%
204	14	Surface	Uranium-238	4.25E+00	9.38E-07		1.77E-08	7.57E-06	8.52E-06	2%
204	**14**	**Surface**	**Totals**		**2.96E-04**	**2.21E-04**	**1.83E-08**	**7.57E-06**	**5.24E-04**	
204	**14**	**Surface**	**Percent**		**56%**	**42%**	**0%**	**1%**		
204	15	Surface	PAH, Total	1.25E-02	1.31E-07	4.19E-07	3.94E-15		5.49E-07	2%
204	15	Surface	Cesium-137	6.30E-01	2.26E-08		9.35E-12	1.79E-05	1.80E-05	61%
204	15	Surface	Uranium-238	5.37E+00	1.18E-06		2.24E-08	9.56E-06	1.08E-05	37%
204	**15**	**Surface**	**Totals**		**1.34E-06**	**4.19E-07**	**2.24E-08**	**2.75E-05**	**2.93E-05**	
204	**15**	**Surface**	**Percent**		**5%**	**1%**	**0%**	**94%**		
204	16	Surface	PAH, Total	1.45E-02	1.52E-07	4.87E-07	4.58E-15		6.39E-07	100%
204	**16**	**Surface**	**Totals**		**1.52E-07**	**4.87E-07**	**4.58E-15**		**6.39E-07**	
204	**16**	**Surface**	**Percent**		**24%**	**76%**	**0%**			
204	17	Surface	PAH, Total	5.99E-02	6.29E-07	2.01E-06	1.89E-14		2.64E-06	34%
204	17	Surface	Uranium-238	2.50E+00	5.52E-07		1.04E-08	4.45E-06	5.01E-06	65%
204	**17**	**Surface**	**Totals**		**1.18E-06**	**2.01E-06**	**1.04E-08**	**4.45E-06**	**7.65E-06**	
204	**17**	**Surface**	**Percent**		**15%**	**26%**	**0%**	**58%**		
204	18	Surface	PAH, Total	7.04E-03	7.39E-08	2.36E-07	2.22E-15		3.10E-07	8%
204	18	Surface	Uranium-238	1.81E+00	3.99E-07		7.56E-09	3.22E-06	3.63E-06	92%
204	**18**	**Surface**	**Totals**		**4.73E-07**	**2.36E-07**	**7.56E-09**	**3.22E-06**	**3.94E-06**	
204	**18**	**Surface**	**Percent**		**12%**	**6%**	**0%**	**82%**		
204	19	Surface	PAH, Total	1.30E-01	1.36E-06	4.36E-06	4.10E-14		5.72E-06	52%
204	19	Surface	Uranium-238	2.65E+00	5.85E-07		1.11E-08	4.72E-06	5.31E-06	48%
204	**19**	**Surface**	**Totals**		**1.95E-06**	**4.36E-06**	**1.11E-08**	**4.72E-06**	**1.10E-05**	
204	**19**	**Surface**	**Percent**		**18%**	**39%**	**0%**	**43%**		
204	20	Surface	Chromium	1.75E+02			4.22E-09		4.22E-09	0%
204	20	Surface	PCB, Total	7.90E+01	2.27E-04	7.83E-04	1.30E-11		1.01E-03	10%
204	20	Surface	Americium-241	3.71E+00	7.49E-07		2.41E-08	1.51E-06	2.28E-06	0%
204	20	Surface	Cesium-137	1.17E+00	4.21E-08		1.74E-11	3.34E-05	3.34E-05	0%
204	20	Surface	Protactinium-231	3.65E+01	1.22E-05		4.89E-07	6.93E-05	8.19E-05	1%
204	20	Surface	Uranium-234	4.45E+02	7.38E-05		2.18E-06	1.68E-06	7.76E-05	1%
204	20	Surface	Uranium-235	5.70E+01	9.83E-06		2.51E-07	4.91E-04	5.01E-04	5%
204	20	Surface	Uranium-238	4.39E+03	9.68E-04		1.83E-05	7.81E-03	8.79E-03	84%
204	**20**	**Surface**	**Totals**		**1.29E-03**	**7.83E-04**	**2.13E-05**	**8.40E-03**	**1.05E-02**	
204	**20**	**Surface**	**Percent**		**12%**	**7%**	**0%**	**80%**		
204	21	Surface	Cobalt	1.80E+01			4.65E-11		4.65E-11	100%
204	**21**	**Surface**	**Totals**				**4.65E-11**		**4.65E-11**	
204	**21**	**Surface**	**Percent**				**100%**			
211	1	Surface	Chromium	4.48E+01			1.08E-09		1.08E-09	0%
211	1	Surface	PAH, Total	1.04E-01	1.09E-06	3.49E-06	3.28E-14		4.58E-06	1%
211	1	Surface	PCB, Total	3.60E-01	1.04E-06	3.57E-06	5.90E-14		4.60E-06	1%
211	1	Surface	Cesium-137	1.67E+00	6.00E-08		2.48E-11	4.76E-05	4.76E-05	12%
211	1	Surface	Neptunium-237	5.93E+00	9.36E-07		3.00E-08	7.58E-05	7.68E-05	20%
211	1	Surface	Uranium-234	6.69E+01	1.11E-05		3.28E-07	2.53E-07	1.17E-05	3%
211	1	Surface	Uranium-238	1.19E+02	2.63E-05		4.97E-07	2.12E-04	2.39E-04	62%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.41. ELCR for the Future Hypothetical Residential Receptor (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
211	**1**	**Surface**	**Totals**		**4.05E-05**	**7.06E-06**	**8.55E-07**	**3.35E-04**	**3.84E-04**	
211	**1**	**Surface**	**Percent**		**11%**	**2%**	**0%**	**87%**		
224	1	Surface	PAH, Total	5.95E-01	6.25E-06	2.00E-05	1.88E-13		2.63E-05	49%
224	1	Surface	Uranium-238	1.39E+01	3.07E-06		5.80E-08	2.47E-05	2.79E-05	55%
224	**1**	**Surface**	**Totals**		**9.32E-06**	**2.00E-05**	**5.80E-08**	**2.47E-05**	**5.42E-05**	
224	**1**	**Surface**	**Percent**		**17%**	**37%**	**0%**	**46%**		
225	1	Surface	Chromium	2.55E+01			6.15E-10		6.15E-10	0%
225	1	Surface	PAH, Total	7.79E-02	8.17E-07	2.62E-06	2.46E-14		3.43E-06	46%
225	1	Surface	Uranium-238	2.04E+00	4.50E-07		8.52E-09	3.63E-06	4.09E-06	56%
225	**1**	**Surface**	**Totals**		**1.27E-06**	**2.62E-06**	**9.13E-09**	**3.63E-06**	**7.52E-06**	
225	**1**	**Surface**	**Percent**		**17%**	**35%**	**0%**	**48%**		

The percentages listed throughout this table under the "Percent" column represent the percent contributions for each COPC to the Total ELCR.
The percentages listed in the row beneath "Totals" represent the percent contributions for each pathway to the Total ELCR.

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.42. ELCR for the Recreational User

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
13	**1**	**Surface**	**Totals**						**0.00E+00**	
13	**1**	**Surface**	**Percent**							
13	2	Surface	Uranium-238	1.40E+00	1.14E-07		5.85E-10	3.12E-07	4.26E-07	100%
13	**2**	**Surface**	**Totals**		**1.14E-07**		**5.85E-10**	**3.12E-07**	**4.26E-07**	
13	**2**	**Surface**	**Percent**		**27%**		**0%**	**73%**		
13	3	Surface	PAH, Total	2.15E-02	9.32E-08	3.35E-07	6.80E-16		4.28E-07	100%
13	**3**	**Surface**	**Totals**		**9.32E-08**	**3.35E-07**	**6.80E-16**		**4.28E-07**	
13	**3**	**Surface**	**Percent**		**22%**	**78%**	**0%**			
13	4	Surface	PAH, Total	4.13E-01	1.79E-06	6.43E-06	1.31E-14		8.22E-06	12%
13	4	Surface	PCB, Total	1.05E+01	1.25E-05	4.83E-05	1.73E-13		6.08E-05	87%
13	4	Surface	Uranium-238	1.78E+00	1.44E-07		7.43E-10	3.96E-07	5.41E-07	1%
13	**4**	**Surface**	**Totals**		**1.44E-05**	**5.47E-05**	**7.43E-10**	**3.96E-07**	**6.96E-05**	
13	**4**	**Surface**	**Percent**		**21%**	**79%**	**0%**	**1%**		
13	5	Surface	Chromium	1.38E+01			3.33E-11		3.33E-11	0%
13	5	Surface	PAH, Total	4.41E-01	1.91E-06	6.86E-06	1.40E-14		8.78E-06	13%
13	5	Surface	PCB, Total	6.66E+00	7.90E-06	3.06E-05	1.09E-13		3.85E-05	57%
13	5	Surface	Neptunium-237	3.88E-01	2.25E-08		1.96E-10	6.21E-07	6.44E-07	1%
13	5	Surface	Technetium-99	1.07E+02	3.19E-07		7.17E-11	1.65E-08	3.35E-07	0%
13	5	Surface	Uranium-234	2.57E+01	1.57E-06		1.26E-08	1.22E-08	1.59E-06	2%
13	5	Surface	Uranium-235	2.95E+00	1.87E-07		1.30E-09	3.18E-06	3.37E-06	5%
13	5	Surface	Uranium-238	4.60E+01	3.73E-06		1.92E-08	1.02E-05	1.40E-05	21%
13	**5**	**Surface**	**Totals**		**1.56E-05**	**3.74E-05**	**3.34E-08**	**1.41E-05**	**6.72E-05**	
13	**5**	**Surface**	**Percent**		**23%**	**56%**	**0%**	**21%**		
13	6	Surface	PAH, Total	6.51E-01	2.82E-06	1.01E-05	2.06E-14		1.30E-05	14%
13	6	Surface	PCB, Total	1.08E+01	1.28E-05	4.94E-05	1.77E-13		6.22E-05	67%
13	6	Surface	Neptunium-237	1.25E+00	7.26E-08		6.32E-10	2.00E-06	2.07E-06	2%
13	6	Surface	Technetium-99	9.50E+01	2.84E-07		6.38E-11	1.47E-08	2.99E-07	0%
13	6	Surface	Uranium-234	2.04E+01	1.24E-06		9.98E-09	9.64E-09	1.26E-06	1%
13	6	Surface	Uranium-235	1.40E+00	8.86E-08		6.16E-10	1.51E-06	1.60E-06	2%
13	6	Surface	Uranium-238	4.17E+01	3.39E-06		1.74E-08	9.29E-06	1.27E-05	14%
13	**6**	**Surface**	**Totals**		**2.07E-05**	**5.96E-05**	**2.87E-08**	**1.28E-05**	**9.31E-05**	
13	**6**	**Surface**	**Percent**		**22%**	**64%**	**0%**	**14%**		
13	7	Surface	Uranium-238	1.30E+00	1.06E-07		5.43E-10	2.90E-07	3.96E-07	100%
13	**7**	**Surface**	**Totals**		**1.06E-07**		**5.43E-10**	**2.90E-07**	**3.96E-07**	
13	**7**	**Surface**	**Percent**		**27%**		**0%**	**73%**		
13	8	Surface	PAH, Total	1.22E-02	5.29E-08	1.90E-07	3.86E-16		2.43E-07	100%
13	**8**	**Surface**	**Totals**		**5.29E-08**	**1.90E-07**	**3.86E-16**		**2.43E-07**	
13	**8**	**Surface**	**Percent**		**22%**	**78%**	**0%**			
13	9	Surface	Chromium	1.43E+01			3.46E-11		3.46E-11	0%
13	9	Surface	PAH, Total	2.65E-02	1.15E-07	4.12E-07	8.38E-16		5.27E-07	18%
13	9	Surface	Neptunium-237	6.88E-01	4.00E-08		3.48E-10	1.10E-06	1.14E-06	39%
13	9	Surface	Uranium-238	4.07E+00	3.30E-07		1.70E-09	9.07E-07	1.24E-06	43%
13	**9**	**Surface**	**Totals**		**4.85E-07**	**4.12E-07**	**2.08E-09**	**2.01E-06**	**2.91E-06**	
13	**9**	**Surface**	**Percent**		**17%**	**14%**	**0%**	**69%**		
13	**10**	**Surface**	**Totals**						**0.00E+00**	
13	**10**	**Surface**	**Percent**							
13	11	Surface	PCB, Total	1.03E+01	1.23E-05	4.75E-05	1.70E-13		5.98E-05	100%
13	**11**	**Surface**	**Totals**		**1.23E-05**	**4.75E-05**	**1.70E-13**		**5.98E-05**	
13	**11**	**Surface**	**Percent**		**21%**	**79%**	**0%**			
13	**12**	**Surface**	**Totals**						**0.00E+00**	
13	**12**	**Surface**	**Percent**							
13	**13**	**Surface**	**Totals**						**0.00E+00**	
13	**13**	**Surface**	**Percent**							
13	14	Surface	PAH, Total	3.27E-02	1.42E-07	5.09E-07	1.03E-15		6.51E-07	2%
13	14	Surface	PCB, Total	6.46E+00	7.67E-06	2.97E-05	1.06E-13		3.73E-05	97%
13	14	Surface	Uranium-238	2.07E+00	1.68E-07		8.65E-10	4.61E-07	6.30E-07	2%
13	**14**	**Surface**	**Totals**		**7.98E-06**	**3.02E-05**	**8.65E-10**	**4.61E-07**	**3.86E-05**	
13	**14**	**Surface**	**Percent**		**21%**	**78%**	**0%**	**1%**		

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.42. ELCR for the Recreational User (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
15	1	Surface	Arsenic	1.27E+01	1.13E-05	9.34E-06	1.57E-12		2.06E-05	41%
15	1	Surface	Cadmium	1.56E+01			8.08E-13		8.08E-13	0%
15	1	Surface	Chromium	8.21E+01			1.98E-10		1.98E-10	0%
15	1	Surface	Nickel	1.32E+02			9.85E-13		9.85E-13	0%
15	1	Surface	PAH, Total	1.71E+00	7.43E-06	2.67E-05	5.42E-14		3.41E-05	62%
15	1	Surface	Uranium-238	1.85E+00	1.50E-07		7.73E-10	4.12E-07	5.63E-07	1%
15	**1**	**Surface**	**Totals**		**1.89E-05**	**3.60E-05**	**9.75E-10**	**4.12E-07**	**5.5263E-05**	
15	**1**	**Surface**	**Percent**		**34%**	**65%**	**0%**	**1%**		
15	2	Surface	Arsenic	1.63E+01	1.45E-05	1.20E-05	2.01E-12		2.65E-05	38%
15	2	Surface	Chromium	5.90E+01			1.43E-10		1.43E-10	0%
15	2	Surface	Nickel	1.97E+02			1.47E-12		1.47E-12	0%
15	2	Surface	PAH, Total	2.11E+00	9.13E-06	3.28E-05	6.67E-14		4.19E-05	56%
15	2	Surface	PCB, Total	3.30E-01	3.92E-07	1.52E-06	5.42E-15		1.91E-06	3%
15	2	Surface	Uranium-234	6.51E+00	3.97E-07		3.19E-09	3.08E-09	4.03E-07	1%
15	2	Surface	Uranium-235	3.80E-01	2.41E-08		1.68E-10	4.10E-07	4.34E-07	1%
15	2	Surface	Uranium-238	1.21E+01	9.82E-07		5.06E-09	2.70E-06	3.68E-06	5%
15	**2**	**Surface**	**Totals**		**2.54E-05**	**4.63E-05**	**8.56E-09**	**3.11E-06**	**7.48E-05**	
15	**2**	**Surface**	**Percent**		**34%**	**62%**	**0%**	**4%**		
15	3	Surface	Arsenic	2.74E+01	2.44E-05	2.02E-05	3.39E-12		4.46E-05	11%
15	3	Surface	Cadmium	1.25E+01			6.48E-13		6.48E-13	0%
15	3	Surface	Chromium	7.53E+01			1.82E-10		1.82E-10	0%
15	3	Surface	Cobalt	3.41E+01			8.83E-12		8.83E-12	0%
15	3	Surface	Nickel	8.38E+02			6.26E-12		6.26E-12	0%
15	3	Surface	PAH, Total	1.45E+00	6.30E-06	2.26E-05	4.60E-14		2.89E-05	7%
15	3	Surface	PCB, Total	6.82E+00	8.10E-06	3.13E-05	1.12E-13		3.94E-05	10%
15	3	Surface	Neptunium-237	3.24E+00	1.88E-07		1.64E-09	5.18E-06	5.37E-06	1%
15	3	Surface	Technetium-99	2.90E+02	8.66E-07		1.95E-10	4.50E-08	9.11E-07	0%
15	3	Surface	Thorium-230	5.14E+00	3.51E-07		3.09E-09	8.13E-09	3.63E-07	0%
15	3	Surface	Uranium-234	1.40E+02	8.54E-06		6.87E-08	6.64E-08	8.68E-06	2%
15	3	Surface	Uranium-235	1.49E+01	9.45E-07		6.56E-09	1.61E-05	1.70E-05	4%
15	3	Surface	Uranium-238	8.68E+02	7.04E-05		3.63E-07	1.93E-04	2.64E-04	65%
15	**3**	**Surface**	**Totals**		**1.20E-04**	**7.42E-05**	**4.43E-07**	**2.15E-04**	**4.09E-04**	
15	**3**	**Surface**	**Percent**		**29%**	**18%**	**0%**	**52%**		
15	4	Surface	Arsenic	3.37E+01	3.00E-05	2.49E-05	4.16E-12		5.49E-05	20%
15	4	Surface	Cadmium	1.86E+01			9.62E-13		9.62E-13	0%
15	4	Surface	Chromium	9.02E+01			2.18E-10		2.18E-10	0%
15	4	Surface	Nickel	1.24E+03			9.28E-12		9.28E-12	0%
15	4	Surface	PAH, Total	1.75E+00	7.58E-06	2.72E-05	5.53E-14		3.48E-05	13%
15	4	Surface	PCB, Total	3.13E+01	3.72E-05	1.44E-04	5.14E-13		1.81E-04	67%
15	4	Surface	Neptunium-237	6.60E-01	3.83E-08		3.34E-10	1.06E-06	1.10E-06	0%
15	4	Surface	Uranium-234	7.93E+00	4.83E-07		3.89E-09	3.75E-09	4.91E-07	0%
15	4	Surface	Uranium-235	3.64E-01	2.31E-08		1.60E-10	3.93E-07	4.16E-07	0%
15	4	Surface	Uranium-238	1.35E+01	1.10E-06		5.65E-09	3.01E-06	4.12E-06	2%
15	**4**	**Surface**	**Totals**		**7.64E-05**	**1.96E-04**	**1.03E-08**	**4.46E-06**	**2.77E-04**	
15	**4**	**Surface**	**Percent**		**28%**	**71%**	**0%**	**2%**		
15	5	Surface	Arsenic	1.28E+01	1.14E-05	9.44E-06	1.58E-12		2.08E-05	12%
15	5	Surface	Cadmium	1.46E+01			7.55E-13		7.55E-13	0%
15	5	Surface	Chromium	8.43E+01			2.04E-10		2.04E-10	0%
15	5	Surface	Nickel	3.53E+02			2.64E-12		2.64E-12	0%
15	5	Surface	PAH, Total	5.11E-01	2.21E-06	7.95E-06	1.62E-14		1.02E-05	6%
15	5	Surface	PCB, Total	2.51E+01	2.98E-05	1.15E-04	4.13E-13		1.45E-04	81%
15	5	Surface	Neptunium-237	6.90E-01	4.01E-08		3.49E-10	1.10E-06	1.14E-06	1%
15	5	Surface	Uranium-235	4.60E-01	2.92E-08		2.03E-10	4.96E-07	5.25E-07	0%
15	5	Surface	Uranium-238	1.03E+01	8.36E-07		4.30E-09	2.29E-06	3.13E-06	2%
15	**5**	**Surface**	**Totals**		**4.43E-05**	**1.33E-04**	**5.07E-09**	**3.90E-06**	**1.81E-04**	
15	**5**	**Surface**	**Percent**		**24%**	**73%**	**0%**	**2%**		
15	6	Surface	Arsenic	1.24E+01	1.11E-05	9.17E-06	1.54E-12		2.02E-05	22%
15	6	Surface	Cadmium	1.64E+01			8.46E-13		8.46E-13	0%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.42. ELCR for the Recreational User (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
15	6	Surface	Chromium	8.25E+01			1.99E-10		1.99E-10	0%
15	6	Surface	Cobalt	1.62E+01			4.19E-12		4.19E-12	0%
15	6	Surface	Nickel	3.00E+02			2.25E-12		2.25E-12	0%
15	6	Surface	PAH, Total	1.62E+00	7.04E-06	2.53E-05	5.14E-14		3.23E-05	34%
15	6	Surface	PCB, Total	6.17E+00	7.32E-06	2.83E-05	1.01E-13		3.56E-05	39%
15	6	Surface	Neptunium-237	6.40E-01	3.72E-08		3.24E-10	1.02E-06	1.06E-06	1%
15	6	Surface	Uranium-234	8.74E+00	5.33E-07		4.28E-09	4.14E-09	5.41E-07	1%
15	6	Surface	Uranium-235	5.70E-01	3.62E-08		2.51E-10	6.15E-07	6.51E-07	1%
15	6	Surface	Uranium-238	1.54E+01	1.25E-06		6.44E-09	3.43E-06	4.69E-06	5%
15	**6**	**Surface**	**Totals**		**2.73E-05**	**6.28E-05**	**1.15E-08**	**5.07E-06**	**9.50E-05**	
15	**6**	**Surface**	**Percent**		**29%**	**66%**	**0%**	**5%**		
15	7	Surface	Arsenic	1.61E+01	1.43E-05	1.19E-05	1.99E-12		2.62E-05	15%
15	7	Surface	Cadmium	1.80E+01			9.31E-13		9.31E-13	0%
15	7	Surface	Chromium	7.97E+01			1.92E-10		1.92E-10	0%
15	7	Surface	Nickel	5.59E+02			4.18E-12		4.18E-12	0%
15	7	Surface	PAH, Total	1.59E-01	6.88E-07	2.47E-06	5.02E-15		3.16E-06	2%
15	7	Surface	PCB, Total	2.57E+01	3.05E-05	1.18E-04	4.22E-13		1.48E-04	82%
15	7	Surface	Uranium-234	6.49E+00	3.96E-07		3.18E-09	3.07E-09	4.02E-07	0%
15	7	Surface	Uranium-235	4.50E-01	2.86E-08		1.98E-10	4.85E-07	5.14E-07	0%
15	7	Surface	Uranium-238	8.05E+00	6.53E-07		3.36E-09	1.79E-06	2.45E-06	1%
15	**7**	**Surface**	**Totals**		**4.66E-05**	**1.32E-04**	**6.94E-09**	**2.28E-06**	**1.81E-04**	
15	**7**	**Surface**	**Percent**		**26%**	**73%**	**0%**	**1%**		
15	8	Surface	Arsenic	1.17E+01	1.04E-05	8.60E-06	1.44E-12		1.90E-05	34%
15	8	Surface	Cadmium	1.68E+01			8.71E-13		8.71E-13	0%
15	8	Surface	Chromium	7.74E+01			1.87E-10		1.87E-10	0%
15	8	Surface	Nickel	1.82E+02			1.36E-12		1.36E-12	0%
15	8	Surface	PAH, Total	3.59E-01	1.55E-06	5.58E-06	1.13E-14		7.14E-06	12%
15	8	Surface	PCB, Total	5.01E+00	5.94E-06	2.30E-05	8.22E-14		2.89E-05	51%
15	8	Surface	Neptunium-237	3.65E-01	2.12E-08		1.85E-10	5.84E-07	6.06E-07	1%
15	8	Surface	Uranium-238	6.64E+00	5.39E-07		2.78E-09	1.48E-06	2.02E-06	4%
15	**8**	**Surface**	**Totals**		**1.84E-05**	**3.72E-05**	**3.15E-09**	**2.06E-06**	**5.77E-05**	
15	**8**	**Surface**	**Percent**		**32%**	**64%**	**0%**	**4%**		
15	9	Surface	Arsenic	1.10E+01	9.83E-06	8.15E-06	1.37E-12		1.80E-05	30%
15	9	Surface	Cadmium	1.81E+01			9.37E-13		9.37E-13	0%
15	9	Surface	Chromium	9.56E+01			2.31E-10		2.31E-10	0%
15	9	Surface	Nickel	1.49E+02			1.11E-12		1.11E-12	0%
15	9	Surface	PAH, Total	2.38E-01	1.03E-06	3.71E-06	7.54E-15		4.74E-06	8%
15	9	Surface	PCB, Total	6.31E+00	7.49E-06	2.90E-05	1.04E-13		3.65E-05	60%
15	9	Surface	Uranium-238	7.12E+00	5.78E-07		2.98E-09	1.59E-06	2.17E-06	4%
15	**9**	**Surface**	**Totals**		**1.89E-05**	**4.08E-05**	**3.21E-09**	**1.59E-06**	**6.14E-05**	
15	**9**	**Surface**	**Percent**		**31%**	**67%**	**0%**	**3%**		
15	10	Surface	Cadmium	1.67E+01			8.64E-13		8.64E-13	0%
15	10	Surface	Chromium	3.55E+01			8.58E-11		8.58E-11	0%
15	10	Surface	Nickel	2.26E+02			1.69E-12		1.69E-12	0%
15	10	Surface	PAH, Total	1.28E-01	5.57E-07	2.00E-06	4.06E-15		2.56E-06	100%
15	**10**	**Surface**	**Totals**		**5.57E-07**	**2.00E-06**	**8.83E-11**		**2.56E-06**	
15	**10**	**Surface**	**Percent**		**22%**	**78%**	**0%**			
26	1	Surface	Chromium	1.67E+01			4.04E-11		4.04E-11	0%
26	1	Surface	PAH, Total	1.97E-01	8.54E-07	3.07E-06	6.23E-15		3.92E-06	5%
26	1	Surface	PCB, Total	9.40E+00	1.12E-05	4.32E-05	1.54E-13		5.43E-05	67%
26	1	Surface	Uranium-234	7.78E+00	4.74E-07		3.81E-09	3.69E-09	4.82E-07	1%
26	1	Surface	Uranium-235	1.23E+00	7.81E-08		5.43E-10	1.33E-06	1.41E-06	2%
26	1	Surface	Uranium-238	6.75E+01	5.48E-06		2.82E-08	1.50E-05	2.06E-05	26%
26	**1**	**Surface**	**Totals**		**1.80E-05**	**4.62E-05**	**3.26E-08**	**1.64E-05**	**8.07E-05**	
26	**1**	**Surface**	**Percent**		**22%**	**57%**	**0%**	**20%**		
26	2	Surface	Arsenic	4.23E+01	3.76E-05	3.12E-05	5.23E-12		6.88E-05	47%
26	2	Surface	Beryllium	1.13E+01			7.76E-13		7.76E-13	0%
26	2	Surface	Chromium	4.12E+01			9.96E-11		9.96E-11	0%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.42. ELCR for the Recreational User (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
26	2	Surface	Cobalt	6.59E+01			1.71E-11		1.71E-11	0%
26	2	Surface	Nickel	1.03E+02			7.68E-13		7.68E-13	0%
26	2	Surface	PCB, Total	3.25E+00	3.86E-06	1.49E-05	5.34E-14		1.88E-05	13%
26	2	Surface	Cesium-137	9.52E+00	1.43E-07		1.42E-11	3.39E-05	3.41E-05	23%
26	2	Surface	Neptunium-237	2.15E-01	1.25E-08		1.09E-10	3.44E-07	3.57E-07	0%
26	2	Surface	Radium-228	1.69E+00	8.11E-07		3.96E-10	3.89E-06	4.70E-06	3%
26	2	Surface	Thorium-230	3.59E+00	2.46E-07		2.16E-09	5.68E-09	2.54E-07	0%
26	2	Surface	Uranium-234	1.98E+01	1.21E-06		9.69E-09	9.36E-09	1.22E-06	1%
26	2	Surface	Uranium-235	2.36E+00	1.50E-07		1.04E-09	2.54E-06	2.70E-06	2%
26	2	Surface	Uranium-238	5.01E+01	4.06E-06		2.09E-08	1.12E-05	1.52E-05	10%
26	**2**	**Surface**	**Totals**		**4.81E-05**	**4.61E-05**	**3.45E-08**	**5.19E-05**	**1.46E-04**	
26	**2**	**Surface**	**Percent**		**33%**	**32%**	**0%**	**35%**		
26	3	Surface	Arsenic	7.56E+01	6.73E-05	5.58E-05	9.35E-12		1.23E-04	61%
26	3	Surface	Chromium	4.56E+01			1.10E-10		1.10E-10	0%
26	3	Surface	PAH, Total	3.30E-01	1.43E-06	5.14E-06	1.04E-14		6.57E-06	3%
26	3	Surface	PCB, Total	8.91E+00	1.06E-05	4.09E-05	1.46E-13		5.15E-05	26%
26	3	Surface	Cesium-137	4.51E+00	6.76E-08		6.71E-12	1.61E-05	1.62E-05	8%
26	3	Surface	Neptunium-237	3.70E-01	2.15E-08		1.87E-10	5.92E-07	6.14E-07	0%
26	3	Surface	Uranium-234	5.02E+00	3.06E-07		2.46E-09	2.38E-09	3.11E-07	0%
26	3	Surface	Uranium-235	3.15E-01	2.00E-08		1.39E-10	3.40E-07	3.60E-07	0%
26	3	Surface	Uranium-238	7.00E+00	5.68E-07		2.92E-09	1.56E-06	2.13E-06	1%
26	**3**	**Surface**	**Totals**		**8.03E-05**	**1.02E-04**	**5.84E-09**	**1.86E-05**	**2.01E-04**	
26	**3**	**Surface**	**Percent**		**40%**	**51%**	**0%**	**9%**		
26	4	Surface	Arsenic	6.01E+01	5.35E-05	4.44E-05	7.43E-12		9.79E-05	18%
26	4	Surface	Chromium	1.14E+02			2.76E-10		2.76E-10	0%
26	4	Surface	Nickel	8.10E+01			6.06E-13		6.06E-13	0%
26	4	Surface	PAH, Total	5.53E+00	2.40E-05	8.60E-05	1.75E-13		1.10E-04	20%
26	4	Surface	PCB, Total	7.95E+00	9.44E-06	3.65E-05	1.31E-13		4.60E-05	8%
26	4	Surface	Cesium-137	1.02E+00	1.53E-08		1.52E-12	3.65E-06	3.66E-06	1%
26	4	Surface	Neptunium-237	2.80E+00	1.62E-07		1.41E-09	4.47E-06	4.64E-06	1%
26	4	Surface	Plutonium-239/240	1.35E+01	1.27E-06		1.32E-08	5.28E-09	1.29E-06	0%
26	4	Surface	Technetium-99	8.36E+02	2.50E-06		5.61E-10	1.30E-07	2.63E-06	0%
26	4	Surface	Thorium-230	5.48E+01	3.74E-06		3.29E-08	8.66E-08	3.86E-06	1%
26	4	Surface	Uranium-234	2.15E+02	1.31E-05		1.06E-07	1.02E-07	1.33E-05	2%
26	4	Surface	Uranium-235	1.52E+01	9.61E-07		6.68E-09	1.63E-05	1.73E-05	3%
26	4	Surface	Uranium-238	8.49E+02	6.89E-05		3.55E-07	1.89E-04	2.59E-04	46%
26	**4**	**Surface**	**Totals**		**1.78E-04**	**1.67E-04**	**5.16E-07**	**2.14E-04**	**5.60E-04**	
26	**4**	**Surface**	**Percent**		**32%**	**30%**	**0%**	**38%**		
77	1	Surface	Chromium	8.30E+01			2.01E-10		2.01E-10	0%
77	1	Surface	PAH, Total	7.02E-02	3.04E-07	1.09E-06	2.22E-15		1.40E-06	4%
77	1	Surface	PCB, Total	5.00E+00	5.94E-06	2.30E-05	8.21E-14		2.89E-05	81%
77	1	Surface	Thorium-230	1.03E+01	7.04E-07		6.19E-09	1.63E-08	7.27E-07	2%
77	1	Surface	Uranium-238	1.53E+01	1.24E-06		6.39E-09	3.41E-06	4.66E-06	13%
77	**1**	**Surface**	**Totals**		**8.19E-06**	**2.41E-05**	**1.28E-08**	**3.42E-06**	**3.57E-05**	
77	**1**	**Surface**	**Percent**		**23%**	**67%**	**0%**	**10%**		
80	1	Surface	Dioxins/Furans, Total	8.82E-05	6.81E-06	5.64E-06	9.64E-14		1.25E-05	2%
80	1	Surface	PCB, Total	1.20E+02	1.42E-04	5.51E-04	1.97E-12		6.94E-04	98%
80	**1**	**Surface**	**Totals**		**1.49E-04**	**5.57E-04**	**2.07E-12**		**7.07E-04**	
80	**1**	**Surface**	**Percent**		**21%**	**79%**	**0%**			
80	2	Surface	Chromium	1.65E+02			3.99E-10		3.99E-10	0%
80	2	Surface	Cobalt	1.90E+01			4.92E-12		4.92E-12	0%
80	2	Surface	PAH, Total	7.21E-01	3.13E-06	1.12E-05	2.28E-14		1.44E-05	2%
80	2	Surface	PCB, Total	1.26E+01	1.50E-05	5.79E-05	2.07E-13		7.28E-05	10%
80	2	Surface	Americium-241	6.40E+00	4.79E-07		4.17E-09	3.25E-07	8.09E-07	0%
80	2	Surface	Cesium-137	8.40E-01	1.26E-08		1.25E-12	2.99E-06	3.01E-06	0%
80	2	Surface	Neptunium-237	5.05E-01	2.93E-08		2.56E-10	8.08E-07	8.38E-07	0%
80	2	Surface	Uranium-234	2.29E+02	1.40E-05		1.12E-07	1.08E-07	1.42E-05	2%
80	2	Surface	Uranium-235	3.00E+01	1.90E-06		1.32E-08	3.24E-05	3.43E-05	5%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.42. ELCR for the Recreational User (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
80	2	Surface	Uranium-238	1.92E+03	1.56E-04		8.03E-07	4.28E-04	5.85E-04	81%
80	**2**	**Surface**	**Totals**		**1.90E-04**	**6.91E-05**	**9.33E-07**	**4.65E-04**	**7.25E-04**	
80	**2**	**Surface**	**Percent**		**26%**	**10%**	**0%**	**64%**		
80	3	Surface	Chromium	1.81E+01			4.38E-11		4.38E-11	0%
80	3	Surface	PCB, Total	5.66E+02	6.72E-04	2.60E-03	9.29E-12		3.27E-03	100%
80	3	Surface	Uranium-238	1.59E+00	1.29E-07		6.65E-10	3.54E-07	4.84E-07	0%
80	**3**	**Surface**	**Totals**		**6.72E-04**	**2.60E-03**	**7.18E-10**	**3.54E-07**	**3.27E-03**	
80	**3**	**Surface**	**Percent**		**21%**	**79%**	**0%**	**0%**		
204	1	Surface	Chromium	1.42E+01			3.42E-11		3.42E-11	0%
204	1	Surface	PAH, Total	4.93E-01	2.14E-06	7.67E-06	1.56E-14		9.81E-06	96%
204	1	Surface	Uranium-238	1.27E+00	1.03E-07		5.32E-10	2.84E-07	3.88E-07	4%
204	**1**	**Surface**	**Totals**		**2.24E-06**	**7.67E-06**	**5.67E-10**	**2.84E-07**	**1.02E-05**	
204	**1**	**Surface**	**Percent**		**22%**	**75%**	**0%**	**3%**		
204	2	Surface	Arsenic	4.59E+01	4.09E-05	3.39E-05	5.68E-12		7.48E-05	97%
204	2	Surface	Chromium	1.84E+01			4.44E-11		4.44E-11	0%
204	2	Surface	PAH, Total	6.20E-02	2.69E-07	9.65E-07	1.96E-15		1.23E-06	2%
204	2	Surface	Uranium-238	3.92E+00	3.18E-07		1.64E-09	8.73E-07	1.19E-06	2%
204	**2**	**Surface**	**Totals**		**4.15E-05**	**3.49E-05**	**1.69E-09**	**8.73E-07**	**7.72E-05**	
204	**2**	**Surface**	**Percent**		**54%**	**45%**	**0%**	**1%**		
204	3	Surface	Chromium	1.80E+01			4.35E-11		4.35E-11	0%
204	3	Surface	PAH, Total	3.52E-02	1.53E-07	5.48E-07	1.11E-15		7.00E-07	50%
204	3	Surface	Uranium-238	2.31E+00	1.87E-07		9.65E-10	5.15E-07	7.03E-07	50%
204	**3**	**Surface**	**Totals**		**3.40E-07**	**5.48E-07**	**1.01E-09**	**5.15E-07**	**1.40E-06**	
204	**3**	**Surface**	**Percent**		**24%**	**39%**	**0%**	**37%**		
204	4	Surface	PAH, Total	2.33E-02	1.01E-07	3.63E-07	7.37E-16		4.64E-07	46%
204	4	Surface	Uranium-238	1.82E+00	1.48E-07		7.61E-10	4.05E-07	5.54E-07	54%
204	**4**	**Surface**	**Totals**		**2.49E-07**	**3.63E-07**	**7.61E-10**	**4.05E-07**	**1.02E-06**	
204	**4**	**Surface**	**Percent**		**24%**	**36%**	**0%**	**40%**		
204	5	Surface	Arsenic	5.67E+01	5.05E-05	4.19E-05	7.02E-12		9.24E-05	98%
204	5	Surface	Chromium	1.61E+01			3.88E-11		3.88E-11	0%
204	5	Surface	PAH, Total	2.04E-02	8.84E-08	3.18E-07	6.45E-16		4.06E-07	0%
204	5	Surface	Uranium-238	5.65E+00	4.58E-07		2.36E-09	1.26E-06	1.72E-06	2%
204	**5**	**Surface**	**Totals**		**5.11E-05**	**4.22E-05**	**2.41E-09**	**1.26E-06**	**9.45E-05**	
204	**5**	**Surface**	**Percent**		**54%**	**45%**	**0%**	**1%**		
204	6	Surface	PAH, Total	3.25E-02	1.41E-07	5.06E-07	1.03E-15		6.47E-07	37%
204	6	Surface	Uranium-238	3.63E+00	2.95E-07		1.52E-09	8.09E-07	1.10E-06	63%
204	**6**	**Surface**	**Totals**		**4.35E-07**	**5.06E-07**	**1.52E-09**	**8.09E-07**	**1.75E-06**	
204	**6**	**Surface**	**Percent**		**25%**	**29%**	**0%**	**46%**		
204	7	Surface	PAH, Total	9.68E-03	4.19E-08	1.51E-07	3.06E-16		1.93E-07	24%
204	7	Surface	Uranium-238	2.04E+00	1.66E-07		8.53E-10	4.54E-07	6.21E-07	76%
204	**7**	**Surface**	**Totals**		**2.08E-07**	**1.51E-07**	**8.53E-10**	**4.54E-07**	**8.14E-07**	
204	**7**	**Surface**	**Percent**		**26%**	**19%**	**0%**	**56%**		
204	8	Surface	Chromium	1.70E+01			4.11E-11		4.11E-11	0%
204	8	Surface	Cobalt	1.40E+01			3.62E-12		3.62E-12	0%
204	8	Surface	PAH, Total	7.37E-02	3.19E-07	1.15E-06	2.33E-15		1.47E-06	71%
204	8	Surface	Uranium-238	2.01E+00	1.63E-07		8.40E-10	4.48E-07	6.12E-07	29%
204	**8**	**Surface**	**Totals**		**4.82E-07**	**1.15E-06**	**8.85E-10**	**4.48E-07**	**2.08E-06**	
204	**8**	**Surface**	**Percent**		**23%**	**55%**	**0%**	**22%**		
204	9	Surface	Chromium	1.80E+01			4.35E-11		4.35E-11	0%
204	9	Surface	PAH, Total	5.01E+00	2.17E-05	7.80E-05	1.58E-13		9.97E-05	99%
204	9	Surface	Uranium-238	2.22E+00	1.80E-07		9.28E-10	4.95E-07	6.76E-07	1%
204	**9**	**Surface**	**Totals**		**2.19E-05**	**7.80E-05**	**9.71E-10**	**4.95E-07**	**1.00E-04**	
204	**9**	**Surface**	**Percent**		**22%**	**78%**	**0%**	**0%**		
204	10	Surface	PAH, Total	6.42E-02	2.78E-07	9.99E-07	2.03E-15		1.28E-06	57%
204	10	Surface	Uranium-238	3.15E+00	2.56E-07		1.32E-09	7.02E-07	9.59E-07	43%
204	**10**	**Surface**	**Totals**		**5.34E-07**	**9.99E-07**	**1.32E-09**	**7.02E-07**	**2.24E-06**	
204	**10**	**Surface**	**Percent**		**24%**	**45%**	**0%**	**31%**		
204	11	Surface	PAH, Total	8.95E-02	3.88E-07	1.39E-06	2.83E-15		1.78E-06	65%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.42. ELCR for the Recreational User (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
204	11	Surface	Uranium-238	3.09E+00	2.51E-07		1.29E-09	6.88E-07	9.40E-07	35%
204	**11**	**Surface**	**Totals**		**6.39E-07**	**1.39E-06**	**1.29E-09**	**6.88E-07**	**2.72E-06**	
204	**11**	**Surface**	**Percent**		**23%**	**51%**	**0%**	**25%**		
204	12	Surface	PAH, Total	6.43E-02	2.79E-07	1.00E-06	2.03E-15		1.28E-06	56%
204	12	Surface	Uranium-238	3.26E+00	2.65E-07		1.36E-09	7.26E-07	9.92E-07	44%
204	**12**	**Surface**	**Totals**		**5.43E-07**	**1.00E-06**	**1.36E-09**	**7.26E-07**	**2.27E-06**	
204	**12**	**Surface**	**Percent**		**24%**	**44%**	**0%**	**32%**		
204	13	Surface	Chromium	1.70E+01			4.11E-11		4.11E-11	0%
204	13	Surface	PAH, Total	5.05E-01	2.19E-06	7.86E-06	1.60E-14		1.00E-05	91%
204	13	Surface	Uranium-238	2.98E+00	2.42E-07		1.25E-09	6.64E-07	9.07E-07	8%
204	**13**	**Surface**	**Totals**		**2.43E-06**	**7.86E-06**	**1.29E-09**	**6.64E-07**	**1.09E-05**	
204	**13**	**Surface**	**Percent**		**22%**	**72%**	**0%**	**6%**		
204	14	Surface	Arsenic	1.36E+02	1.21E-04	1.00E-04	1.68E-11		2.21E-04	98%
204	14	Surface	Chromium	1.70E+01			4.11E-11		4.11E-11	0%
204	14	Surface	PAH, Total	1.28E-01	5.53E-07	1.99E-06	4.04E-15		2.54E-06	1%
204	14	Surface	Uranium-238	4.25E+00	3.45E-07		1.78E-09	9.47E-07	1.29E-06	1%
204	**14**	**Surface**	**Totals**		**1.22E-04**	**1.02E-04**	**1.83E-09**	**9.47E-07**	**2.25E-04**	
204	**14**	**Surface**	**Percent**		**54%**	**45%**	**0%**	**0%**		
204	15	Surface	PAH, Total	1.25E-02	5.40E-08	1.94E-07	3.94E-16		2.48E-07	6%
204	15	Surface	Cesium-137	6.30E-01	9.44E-09		9.37E-13	2.25E-06	2.26E-06	55%
204	15	Surface	Uranium-238	5.37E+00	4.36E-07		2.24E-09	1.20E-06	1.63E-06	39%
204	**15**	**Surface**	**Totals**		**4.99E-07**	**1.94E-07**	**2.25E-09**	**3.44E-06**	**4.14E-06**	
204	**15**	**Surface**	**Percent**		**12%**	**5%**	**0%**	**83%**		
204	16	Surface	PAH, Total	1.45E-02	6.28E-08	2.26E-07	4.58E-16		2.88E-07	100%
204	**16**	**Surface**	**Totals**		**6.28E-08**	**2.26E-07**	**4.58E-16**		**2.88E-07**	
204	**16**	**Surface**	**Percent**		**22%**	**78%**	**0%**			
204	17	Surface	PAH, Total	5.99E-02	2.60E-07	9.32E-07	1.89E-15		1.19E-06	61%
204	17	Surface	Uranium-238	2.50E+00	2.03E-07		1.04E-09	5.57E-07	7.61E-07	39%
204	**17**	**Surface**	**Totals**		**4.62E-07**	**9.32E-07**	**1.04E-09**	**5.57E-07**	**1.95E-06**	
204	**17**	**Surface**	**Percent**		**24%**	**48%**	**0%**	**29%**		
204	18	Surface	PAH, Total	7.04E-03	3.05E-08	1.10E-07	2.23E-16		1.40E-07	20%
204	18	Surface	Uranium-238	1.81E+00	1.47E-07		7.56E-10	4.03E-07	5.51E-07	80%
204	**18**	**Surface**	**Totals**		**1.77E-07**	**1.10E-07**	**7.56E-10**	**4.03E-07**	**6.91E-07**	
204	**18**	**Surface**	**Percent**		**26%**	**16%**	**0%**	**58%**		
204	19	Surface	PAH, Total	1.30E-01	5.62E-07	2.02E-06	4.10E-15		2.58E-06	76%
204	19	Surface	Uranium-238	2.65E+00	2.15E-07		1.11E-09	5.90E-07	8.07E-07	24%
204	**19**	**Surface**	**Totals**		**7.77E-07**	**2.02E-06**	**1.11E-09**	**5.90E-07**	**3.39E-06**	
204	**19**	**Surface**	**Percent**		**23%**	**60%**	**0%**	**17%**		
204	20	Surface	Chromium	1.75E+02			4.23E-10		4.23E-10	0%
204	20	Surface	PCB, Total	7.90E+01	9.38E-05	3.63E-04	1.30E-12		4.57E-04	24%
204	20	Surface	Americium-241	3.71E+00	2.78E-07		2.42E-09	1.88E-07	4.69E-07	0%
204	20	Surface	Cesium-137	1.17E+00	1.76E-08		1.74E-12	4.18E-06	4.20E-06	0%
204	20	Surface	Protactinium-231	3.65E+01	4.48E-06		4.90E-08	8.67E-06	1.32E-05	1%
204	20	Surface	Uranium-234	4.45E+02	2.71E-05		2.18E-07	2.11E-07	2.76E-05	1%
204	20	Surface	Uranium-235	5.70E+01	3.62E-06		2.51E-08	6.15E-05	6.51E-05	3%
204	20	Surface	Uranium-238	4.39E+03	3.56E-04		1.83E-06	9.77E-04	1.33E-03	70%
204	**20**	**Surface**	**Totals**		**4.85E-04**	**3.63E-04**	**2.13E-06**	**1.05E-03**	**1.90E-03**	
204	**20**	**Surface**	**Percent**		**26%**	**19%**	**0%**	**55%**		
204	21	Surface	Cobalt	1.80E+01			4.66E-12		4.66E-12	100%
204	**21**	**Surface**	**Totals**				**4.66E-12**		**4.66E-12**	
204	**21**	**Surface**	**Percent**				**100%**			
211	1	Surface	Chromium	4.48E+01			1.08E-10		1.08E-10	0%
211	1	Surface	PAH, Total	1.04E-01	4.50E-07	1.62E-06	3.28E-15		2.07E-06	3%
211	1	Surface	PCB, Total	3.60E-01	4.27E-07	1.65E-06	5.91E-15		2.08E-06	3%
211	1	Surface	Cesium-137	1.67E+00	2.50E-08		2.48E-12	5.95E-06	5.98E-06	10%
211	1	Surface	Neptunium-237	5.93E+00	3.44E-07		3.00E-09	9.49E-06	9.84E-06	16%
211	1	Surface	Uranium-234	6.69E+01	4.08E-06		3.28E-08	3.17E-08	4.14E-06	7%
211	1	Surface	Uranium-238	1.19E+02	9.66E-06		4.97E-08	2.65E-05	3.62E-05	60%

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk

Table D.42. ELCR for the Recreational User (Continued)

SWMU	EU	Depth	COPC	EPC (mg/kg or pCi/g)	Ingestion	Dermal	Inhalation	External Exposure	ELCR	Percent
211	**1**	**Surface**	**Totals**		**1.50E-05**	**3.27E-06**	**8.56E-08**	**4.20E-05**	**6.03E-05**	
211	**1**	**Surface**	**Percent**		**25%**	**5%**	**0%**	**70%**		
224	1	Surface	PAH, Total	5.95E-01	2.58E-06	9.27E-06	1.88E-14		1.18E-05	73%
224	1	Surface	Uranium-238	1.39E+01	1.13E-06		5.81E-09	3.10E-06	4.23E-06	29%
224	**1**	**Surface**	**Totals**		**3.71E-06**	**9.27E-06**	**5.81E-09**	**3.10E-06**	**1.60E-05**	
224	**1**	**Surface**	**Percent**		**23%**	**58%**	**0%**	**19%**		
225	1	Surface	Chromium	2.55E+01			6.16E-11		6.16E-11	0%
225	1	Surface	PAH, Total	7.79E-02	3.37E-07	1.21E-06	2.46E-15		1.55E-06	71%
225	1	Surface	Uranium-238	2.04E+00	1.66E-07		8.53E-10	4.54E-07	6.21E-07	30%
225	**1**	**Surface**	**Totals**		**5.03E-07**	**1.21E-06**	**9.14E-10**	**4.54E-07**	**2.17E-06**	
225	**1**	**Surface**	**Percent**		**23%**	**56%**	**0%**	**21%**		

The percentages listed throughout this table under the "Percent" column represent the percent contributions for each COPC to the Total ELCR.
The percentages listed in the row beneath "Totals" represent the percent contributions for each pathway to the Total ELCR.

SWMU = solid waste management unit
EU = exposure unit
COPC = chemical of potential concern
EPC = exposure point concentration
ELCR = excess lifetime cancer risk