Table D.48. Dose RGOs for the Soils OU RI 2 SWMUs

Industrial Worker Exposure to Surface Soil

SWMU	EU	COC	EPC	RGO at 1 mrem/yr	RGO at 12 mrem/yr	RGO at 25 mrem/yr	Units
13	5	Uranium-238	4.60E+01	4.10E+01	n/a	n/a	pCi/g
13	6	Uranium-238	4.17E+01	4.10E+01	n/a	n/a	pCi/g
15	3	Uranium-235	1.49E+01	7.76E+00	n/a	n/a	pCi/g
15	3	Uranium-238	8.68E+02	4.10E+01	4.92E+02	n/a	pCi/g
26	1	Uranium-238	6.75E+01	4.10E+01	n/a	n/a	pCi/g
26	2	Cesium-137	9.52E+00	1.62E+00	n/a	n/a	pCi/g
26	2	Uranium-238	5.01E+01	4.10E+01	n/a	n/a	pCi/g
26	3	Cesium-137	4.51E+00	1.62E+00	n/a	n/a	pCi/g
26	4	Uranium-235	1.52E+01	7.76E+00	n/a	n/a	pCi/g
26	4	Uranium-238	8.49E+02	4.10E+01	4.92E+02	n/a	pCi/g
80	2	Uranium-235	3.00E+01	7.76E+00	n/a	n/a	pCi/g
80	2	Uranium-238	1.92E+03	4.10E+01	4.92E+02	1.03E+03	pCi/g
204	20	Protactinium-231	3.65E+01	2.22E+01	n/a	n/a	pCi/g
204	20	Uranium-234	4.45E+02	3.84E+02	n/a	n/a	pCi/g
204	20	Uranium-235	5.70E+01	7.76E+00	n/a	n/a	pCi/g
204	20	Uranium-238	4.39E+03	4.10E+01	4.92E+02	1.03E+03	pCi/g
211	1	Cesium-137	1.67E+00	1.62E+00	n/a	n/a	pCi/g
211	1	Neptunium-237	5.93E+00	5.23E+00	n/a	n/a	pCi/g
211	1	Uranium-238	1.19E+02	4.10E+01	n/a	n/a	pCi/g

SWMU = solid waste management unit
EU = exposure unit
COC = contaminant of concern
EPC = exposure point concentration
RGO = remedial goal option
n/a = not applicable, EPC > RGO

Table D.48. Dose RGOs for the Soils OU RI 2 SWMUs (Continued)

Outdoor Worker Exposure to Surface Soil

SWMU	EU	COC	EPC	RGO at 1 mrem/yr	RGO at 12 mrem/yr	RGO at 25 mrem/yr	Units
13	5	Uranium-238	4.60E+01	3.08E+01	n/a	n/a	pCi/g
13	6	Uranium-238	4.17E+01	3.08E+01	n/a	n/a	pCi/g
15	3	Uranium-234	1.40E+02	6.12E+01	n/a	n/a	pCi/g
15	3	Uranium-235	1.49E+01	9.15E+00	n/a	n/a	pCi/g
15	3	Uranium-238	8.68E+02	3.08E+01	3.70E+02	7.70E+02	pCi/g
26	1	Uranium-238	6.75E+01	3.08E+01	n/a	n/a	pCi/g
26	2	Cesium-137	9.52E+00	2.17E+00	n/a	n/a	pCi/g
26	2	Uranium-238	5.00E+01	3.08E+01	n/a	n/a	pCi/g
26	3	Cesium-137	4.51E+00	2.17E+00	n/a	n/a	pCi/g
26	4	Plutonium-239/240	1.35E+01	1.18E+01	n/a	n/a	pCi/g
26	4	Thorium-230	5.48E+01	1.40E+01	n/a	n/a	pCi/g
26	4	Uranium-234	2.15E+02	6.12E+01	n/a	n/a	pCi/g
26	4	Uranium-235	1.52E+01	9.15E+00	n/a	n/a	pCi/g
26	4	Uranium-238	8.49E+02	3.08E+01	3.70E+02	7.70E+02	pCi/g
80	2	Uranium-234	2.29E+02	6.12E+01	n/a	n/a	pCi/g
80	2	Uranium-235	3.00E+01	9.15E+00	n/a	n/a	pCi/g
80	2	Uranium-238	1.92E+03	3.08E+01	3.70E+02	7.70E+02	pCi/g
204	20	Protactinium-231	3.65E+01	4.13E+00	n/a	n/a	pCi/g
204	20	Uranium-234	4.45E+02	6.12E+01	n/a	n/a	pCi/g
204	20	Uranium-235	5.70E+01	9.15E+00	n/a	n/a	pCi/g
204	20	Uranium-238	4.39E+03	3.08E+01	3.70E+02	7.70E+02	pCi/g
211	1	Neptunium-237	5.93E+00	5.75E+00	n/a	n/a	pCi/g
211	1	Uranium-234	6.69E+01	6.12E+01	n/a	n/a	pCi/g
211	1	Uranium-238	1.19E+02	3.08E+01	n/a	n/a	pCi/g

SWMU = solid waste management unit
EU = exposure unit
COC = contaminant of concern
EPC = exposure point concentration
RGO = remedial goal option
n/a = not applicable, EPC > RGO

Table D.48. Dose RGOs for the Soils OU RI 2 SWMUs (Continued)

Outdoor Worker Exposure to Surface and Subsurface Soil

SWMU	EU	COC	EPC	RGO at 1 mrem/yr	RGO at 12 mrem/yr	RGO at 25 mrem/yr	Units
13	5	Uranium-238	3.77E+01	3.08E+01	n/a	n/a	pCi/g
13	6	Uranium-238	3.25E+01	3.08E+01	n/a	n/a	pCi/g
15	3	Uranium-234	1.91E+02	6.12E+01	n/a	n/a	pCi/g
15	3	Uranium-235	2.15E+01	9.15E+00	n/a	n/a	pCi/g
15	3	Uranium-238	1.08E+03	3.08E+01	3.70E+02	7.70E+02	pCi/g
26	1	Uranium-238	6.95E+01	3.08E+01	n/a	n/a	pCi/g
26	2	Cesium-137	8.23E+00	2.17E+00	n/a	n/a	pCi/g
26	2	Uranium-238	3.92E+01	3.08E+01	n/a	n/a	pCi/g
26	3	Cesium-137	3.38E+00	2.17E+00	n/a	n/a	pCi/g
26	4	Cesium-137	4.69E+00	2.17E+00	n/a	n/a	pCi/g
26	4	Neptunium-237	3.87E+01	5.75E+00	n/a	n/a	pCi/g
26	4	Plutonium-239/240	1.51E+01	1.18E+01	n/a	n/a	pCi/g
26	4	Thorium-230	8.68E+01	1.40E+01	n/a	n/a	pCi/g
26	4	Uranium-234	3.46E+02	6.12E+01	n/a	n/a	pCi/g
26	4	Uranium-235	2.46E+01	9.15E+00	n/a	n/a	pCi/g
26	4	Uranium-238	8.24E+02	3.08E+01	3.70E+02	7.70E+02	pCi/g
80	2	Uranium-234	2.29E+02	6.12E+01	n/a	n/a	pCi/g
80	2	Uranium-235	3.00E+01	9.15E+00	n/a	n/a	pCi/g
80	2	Uranium-238	1.92E+03	3.08E+01	3.70E+02	7.70E+02	pCi/g
204	20	Protactinium-231	3.65E+01	4.13E+00	n/a	n/a	pCi/g
204	20	Uranium-234	4.45E+02	6.12E+01	n/a	n/a	pCi/g
204	20	Uranium-235	5.70E+01	9.15E+00	n/a	n/a	pCi/g
204	20	Uranium-238	4.39E+03	3.08E+01	3.70E+02	7.70E+02	pCi/g
211	1	Uranium-234	6.69E+01	6.12E+01	n/a	n/a	pCi/g
211	1	Uranium-238	1.19E+02	3.08E+01	n/a	n/a	pCi/g

SWMU = solid waste management unit
EU = exposure unit
COC = contaminant of concern
EPC = exposure point concentration
RGO = remedial goal option
n/a = not applicable, EPC > RGO

Table D.48. Dose RGOs for the Soils OU RI 2 SWMUs (Continued)

Excavation Worker Exposure to Surface and Subsurface Soil

SWMU	EU	COC	EPC	RGO at 1 mrem/yr	RGO at 12 mrem/yr	RGO at 25 mrem/yr	Units
13	5	Uranium-238	3.77E+01	3.08E+01	n/a	n/a	pCi/g
13	6	Uranium-238	3.25E+01	3.08E+01	n/a	n/a	pCi/g
15	3	Uranium-234	1.91E+02	6.12E+01	n/a	n/a	pCi/g
15	3	Uranium-235	2.15E+01	9.15E+00	n/a	n/a	pCi/g
15	3	Uranium-238	1.08E+03	3.08E+01	3.70E+02	7.70E+02	pCi/g
26	1	Uranium-238	6.95E+01	3.08E+01	n/a	n/a	pCi/g
26	2	Cesium-137	8.23E+00	2.17E+00	n/a	n/a	pCi/g
26	2	Uranium-238	3.92E+01	3.08E+01	n/a	n/a	pCi/g
26	3	Cesium-137	3.38E+00	2.17E+00	n/a	n/a	pCi/g
26	4	Cesium-137	4.69E+00	2.17E+00	n/a	n/a	pCi/g
26	4	Neptunium-237	3.87E+01	5.75E+00	n/a	n/a	pCi/g
26	4	Plutonium-239/240	1.51E+01	1.18E+01	n/a	n/a	pCi/g
26	4	Thorium-230	8.68E+01	1.40E+01	n/a	n/a	pCi/g
26	4	Uranium-234	3.46E+02	6.12E+01	n/a	n/a	pCi/g
26	4	Uranium-235	2.46E+01	9.15E+00	n/a	n/a	pCi/g
26	4	Uranium-238	8.24E+02	3.08E+01	3.70E+02	7.70E+02	pCi/g
80	2	Uranium-234	2.29E+02	6.12E+01	n/a	n/a	pCi/g
80	2	Uranium-235	3.00E+01	9.15E+00	n/a	n/a	pCi/g
80	2	Uranium-238	1.92E+03	3.08E+01	3.70E+02	7.70E+02	pCi/g
204	20	Protactinium-231	3.65E+01	4.13E+00	n/a	n/a	pCi/g
204	20	Uranium-234	4.45E+02	6.12E+01	n/a	n/a	pCi/g
204	20	Uranium-235	5.70E+01	9.15E+00	n/a	n/a	pCi/g
204	20	Uranium-238	4.39E+03	3.08E+01	3.70E+02	7.70E+02	pCi/g
211	1	Uranium-234	6.69E+01	6.12E+01	n/a	n/a	pCi/g
211	1	Uranium-238	1.19E+02	3.08E+01	n/a	n/a	pCi/g

SWMU = solid waste management unit
EU = exposure unit
COC = contaminant of concern
EPC = exposure point concentration
RGO = remedial goal option
n/a = not applicable, EPC > RGO

Table D.48. Dose RGOs for the Soils OU RI 2 SWMUs (Continued)

Hypothetical Adult Resident Exposure to Surface Soil

SWMU	EU	COC	EPC	RGO at 1 mrem/yr	RGO at 12 mrem/yr	RGO at 25 mrem/yr	Units
13	5	Uranium-235	2.95E+00	2.47E+00	n/a	n/a	pCi/g
13	5	Uranium-238	4.60E+01	1.32E+01	n/a	n/a	pCi/g
13	6	Uranium-238	4.17E+01	1.32E+01	n/a	n/a	pCi/g
15	3	Neptunium-237	3.23E+00	1.68E+00	n/a	n/a	pCi/g
15	3	Uranium-235	1.49E+01	2.47E+00	n/a	n/a	pCi/g
15	3	Uranium-238	8.68E+02	1.32E+01	1.58E+02	3.30E+02	pCi/g
15	4	Uranium-238	1.35E+01	1.32E+01	n/a	n/a	pCi/g
15	6	Uranium-238	1.54E+01	1.32E+01	n/a	n/a	pCi/g
26	1	Uranium-238	6.75E+01	1.32E+01	n/a	n/a	pCi/g
26	2	Cesium-137	9.52E+00	5.14E-01	6.17E+00	n/a	pCi/g
26	2	Uranium-238	5.00E+01	1.32E+01	n/a	n/a	pCi/g
26	3	Cesium-137	4.51E+00	5.14E-01	n/a	n/a	pCi/g
26	4	Cesium-137	1.02E+00	5.14E-01	n/a	n/a	pCi/g
26	4	Neptunium-237	2.79E+00	1.68E+00	n/a	n/a	pCi/g
26	4	Thorium-230	5.48E+01	3.34E+01	n/a	n/a	pCi/g
26	4	Uranium-234	2.15E+02	1.49E+02	n/a	n/a	pCi/g
26	4	Uranium-235	1.52E+01	2.47E+00	n/a	n/a	pCi/g
26	4	Uranium-238	8.49E+02	1.32E+01	1.58E+02	3.30E+02	pCi/g
77	1	Uranium-238	1.53E+01	1.32E+01	n/a	n/a	pCi/g
80	2	Cesium-137	8.40E-01	5.14E-01	n/a	n/a	pCi/g
80	2	Uranium-234	2.29E+02	1.49E+02	n/a	n/a	pCi/g
80	2	Uranium-235	3.00E+01	2.47E+00	2.96E+01	n/a	pCi/g
80	2	Uranium-238	1.92E+03	1.32E+01	1.58E+02	3.30E+02	pCi/g
204	15	Cesium-137	6.30E-01	5.14E-01	n/a	n/a	pCi/g
204	20	Cesium-137	1.17E+00	5.14E-01	n/a	n/a	pCi/g
204	20	Protactinium-231	3.65E+01	8.31E+00	n/a	n/a	pCi/g
204	20	Uranium-234	4.45E+02	1.49E+02	n/a	n/a	pCi/g
204	20	Uranium-235	5.70E+01	2.47E+00	2.96E+01	n/a	pCi/g
204	20	Uranium-238	4.39E+03	1.32E+01	1.58E+02	3.30E+02	pCi/g
211	1	Cesium-137	1.67E+00	5.14E-01	n/a	n/a	pCi/g
211	1	Neptunium-237	5.93E+00	1.68E+00	n/a	n/a	pCi/g
211	1	Uranium-238	1.19E+02	1.32E+01	n/a	n/a	pCi/g
224	1	Uranium-238	1.39E+01	1.32E+01	n/a	n/a	pCi/g

SWMU = solid waste management unit
EU = exposure unit
COC = contaminant of concern
EPC = exposure point concentration
RGO = remedial goal option
n/a = not applicable, EPC > RGO

Table D.48. Dose RGOs for the Soils OU RI 2 SWMUs (Continued)

Hypothetical Child Resident Exposure to Surface Soil

SWMU	EU	COC	EPC	RGO at 1 mrem/yr	RGO at 12 mrem/yr	RGO at 25 mrem/yr	Units
13	5	Uranium-235	2.95E+00	2.38E+00	n/a	n/a	pCi/g
13	5	Uranium-238	4.60E+01	1.07E+01	n/a	n/a	pCi/g
13	6	Uranium-238	4.17E+01	1.07E+01	n/a	n/a	pCi/g
15	2	Uranium-238	1.21E+01	1.07E+01	n/a	n/a	pCi/g
15	3	Neptunium-237	3.23E+00	1.61E+00	n/a	n/a	pCi/g
15	3	Uranium-234	1.40E+02	4.27E+01	n/a	n/a	pCi/g
15	3	Uranium-235	1.49E+01	2.38E+00	n/a	n/a	pCi/g
15	3	Uranium-238	8.68E+02	1.07E+01	1.28E+02	2.68E+02	pCi/g
15	4	Uranium-238	1.35E+01	1.07E+01	n/a	n/a	pCi/g
15	6	Uranium-238	1.54E+01	1.07E+01	n/a	n/a	pCi/g
26	1	Uranium-238	6.75E+01	1.07E+01	n/a	n/a	pCi/g
26	2	Cesium-137	9.52E+00	5.14E-01	6.17E+00	n/a	pCi/g
26	2	Radium-228	1.69E+00	1.13E+00	n/a	n/a	pCi/g
26	2	Uranium-238	5.00E+01	1.07E+01	n/a	n/a	pCi/g
26	3	Cesium-137	4.51E+00	5.14E-01	n/a	n/a	pCi/g
26	4	Cesium-137	1.02E+00	5.14E-01	n/a	n/a	pCi/g
26	4	Neptunium-237	2.79E+00	1.61E+00	n/a	n/a	pCi/g
26	4	Plutonium-239/240	1.35E+01	1.13E+01	n/a	n/a	pCi/g
26	4	Thorium-230	5.48E+01	1.19E+01	n/a	n/a	pCi/g
26	4	Uranium-234	2.15E+02	4.27E+01	n/a	n/a	pCi/g
26	4	Uranium-235	1.52E+01	2.38E+00	n/a	n/a	pCi/g
26	4	Uranium-238	8.49E+02	1.07E+01	1.28E+02	2.68E+02	pCi/g
77	1	Uranium-238	1.53E+01	1.07E+01	n/a	n/a	pCi/g
80	2	Cesium-137	8.40E-01	5.14E-01	n/a	n/a	pCi/g
80	2	Uranium-234	2.29E+02	4.27E+01	n/a	n/a	pCi/g
80	2	Uranium-235	3.00E+01	2.38E+00	2.86E+01	n/a	pCi/g
80	2	Uranium-238	1.92E+03	1.07E+01	1.28E+02	2.68E+02	pCi/g
204	15	Cesium-137	6.30E-01	5.14E-01	n/a	n/a	pCi/g
204	20	Cesium-137	1.17E+00	5.14E-01	n/a	n/a	pCi/g
204	20	Protactinium-231	3.65E+01	3.18E+00	n/a	n/a	pCi/g
204	20	Uranium-234	4.45E+02	4.27E+01	n/a	n/a	pCi/g
204	20	Uranium-235	5.70E+01	2.38E+00	2.86E+01	n/a	pCi/g
204	20	Uranium-238	4.39E+03	1.07E+01	1.28E+02	2.68E+02	pCi/g
211	1	Cesium-137	1.67E+00	5.14E-01	n/a	n/a	pCi/g
211	1	Neptunium-237	5.93E+00	1.61E+00	n/a	n/a	pCi/g
211	1	Uranium-234	6.69E+01	4.27E+01	n/a	n/a	pCi/g
211	1	Uranium-238	1.19E+02	1.07E+01	n/a	n/a	pCi/g
224	1	Uranium-238	1.39E+01	1.07E+01	n/a	n/a	pCi/g

SWMU = solid waste management unit
EU = exposure unit
COC = contaminant of concern
EPC = exposure point concentration
RGO = remedial goal option
n/a = not applicable, EPC > RGO

Table D.48. Dose RGOs for the Soils OU RI 2 SWMUs (Continued)

Adult Recreator Exposure to Surface Soil

SWMU	EU	COC	EPC	RGO at 1 mrem/yr	RGO at 12 mrem/yr	RGO at 25 mrem/yr	Units
15	3	Uranium-238	8.68E+02	1.32E+02	n/a	n/a	pCi/g
26	2	Cesium-137	9.52E+00	4.98E+00	n/a	n/a	pCi/g
26	4	Uranium-238	8.49E+02	1.32E+02	n/a	n/a	pCi/g
80	2	Uranium-235	3.00E+01	2.41E+01	n/a	n/a	pCi/g
80	2	Uranium-238	1.92E+03	1.32E+02	1.58E+03	n/a	pCi/g
204	20	Uranium-235	5.70E+01	2.41E+01	n/a	n/a	pCi/g
204	20	Uranium-238	4.39E+03	1.32E+02	1.58E+03	3.30E+03	pCi/g

SWMU = solid waste management unit
EU = exposure unit
COC = contaminant of concern
EPC = exposure point concentration
RGO = remedial goal option
n/a = not applicable, EPC > RGO

Table D.48. Dose RGOs for the Soils OU RI 2 SWMUs (Continued)

Teen Recreator Exposure to Surface Soil

SWMU	EU	COC	EPC	RGO at 1 mrem/yr	RGO at 12 mrem/yr	RGO at 25 mrem/yr	Units
15	3	Uranium-238	8.68E+02	9.59E+01	n/a	n/a	pCi/g
26	2	Cesium-137	9.52E+00	3.70E+00	n/a	n/a	pCi/g
26	3	Cesium-137	4.51E+00	3.70E+00	n/a	n/a	pCi/g
26	4	Uranium-238	8.49E+02	9.59E+01	n/a	n/a	pCi/g
80	2	Uranium-235	3.00E+01	1.78E+01	n/a	n/a	pCi/g
80	2	Uranium-238	1.92E+03	9.59E+01	1.15E+03	n/a	pCi/g
204	20	Uranium-235	5.70E+01	1.78E+01	n/a	n/a	pCi/g
204	20	Uranium-238	4.39E+03	9.59E+01	1.15E+03	2.40E+03	pCi/g
211	1	Uranium-238	1.19E+02	9.59E+01	n/a	n/a	pCi/g

SWMU = solid waste management unit
EU = exposure unit
COC = contaminant of concern
EPC = exposure point concentration
RGO = remedial goal option
n/a = not applicable, EPC > RGO

Table D.48. Dose RGOs for the Soils OU RI 2 SWMUs (Continued)

Child Recreator Exposure to Surface Soil

SWMU	EU	COC	EPC	RGO at 1 mrem/yr	RGO at 12 mrem/yr	RGO at 25 mrem/yr	Units
15	3	Uranium-238	8.68E+02	8.52E+01	n/a	n/a	pCi/g
26	2	Cesium-137	9.52E+00	3.70E+00	n/a	n/a	pCi/g
26	3	Cesium-137	4.51E+00	3.70E+00	n/a	n/a	pCi/g
26	4	Uranium-238	8.49E+02	8.52E+01	n/a	n/a	pCi/g
80	2	Uranium-235	3.00E+01	1.75E+01	n/a	n/a	pCi/g
80	2	Uranium-238	1.92E+03	8.52E+01	1.02E+03	n/a	pCi/g
204	20	Protactinium-231	3.65E+01	3.50E+01	n/a	n/a	pCi/g
204	20	Uranium-235	5.70E+01	1.75E+01	n/a	n/a	pCi/g
204	20	Uranium-238	4.39E+03	8.52E+01	1.02E+03	2.13E+03	pCi/g
211	1	Uranium-238	1.19E+02	8.52E+01	n/a	n/a	pCi/g

SWMU = solid waste management unit
EU = exposure unit
COC = contaminant of concern
EPC = exposure point concentration
RGO = remedial goal option
n/a = not applicable, EPC > RGO