Table G.11. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a 1-km Line of Analysis, Alternative Group B

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	1.25E-01	9.91E-04	10000	1.52E-01	1.21E-03	10000	7.20E-01	5.73E-03	10000
Tc-99	900	1.13E-02	9.36E-02	1230	1.38E-02	1.14E-01	1230	5.52E-02	4.56E-01	1230
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	9.84E-05	8.14E-04	1230	1.20E-04	9.92E-04	1230	4.42E-04	3.65E-03	1230
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	3.85E-03	2.08E-04	10000	4.70E-03	2.43E-04	10000	1.73E-02	1.20E-05	10000
U-234	(a)	6.38E-03	3.44E-04	10000	7.78E-03	4.02E-04	10000	1.25E-01	8.68E-05	10000
U-235	(a)	1.34E-03	7.20E-05	10000	1.63E-03	8.42E-05	10000	1.22E-02	8.47E-06	10000
U-236	(a)	1.52E-04	8.17E-06	10000	1.85E-04	9.55E-06	10000	6.80E-04	4.72E-07	10000
U-238	(a)	1.53E-02	8.21E-04	10000	1.86E-02	9.60E-04	10000	2.29E-01	1.59E-04	10000
200 West Area	(a)									
C-14	2000	3.21E+00	0.00E+00	>10000	3.91E+00	0.00E+00	>10000	4.49E+00	0.00E+00	>10000
Tc-99	900	2.89E-01	2.89E+00	1700	3.52E-01	3.52E+00	1700	3.44E-01	3.44E+00	1700
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.53E-03	2.53E-02	1700	3.08E-03	3.08E-02	1700	2.76E-03	2.76E-02	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	9.84E-02	0.00E+00	>10000	1.20E-01	0.00E+00	>10000	1.08E-01	0.00E+00	>10000
U-234	(a)	1.63E-01	0.00E+00	>10000	1.99E-01	0.00E+00	>10000	7.77E-01	0.00E+00	>10000
U-235	(a)	3.43E-02	0.00E+00	>10000	4.18E-02	0.00E+00	>10000	7.64E-02	0.00E+00	>10000
U-236	(a)	3.88E-03	0.00E+00	>10000	4.73E-03	0.00E+00	>10000	4.24E-03	0.00E+00	>10000
U-238	(a)	3.90E-01	0.00E+00	>10000	4.76E-01	0.00E+00	>10000	1.43E+00	0.00E+00	>10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00	0.00E+00	10000	5.79E-03	4.60E-05	10000	1.32E-02	1.05E-04	10000
Tc-99	900	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	
Grouted Tc-99	900	3.89E+01	1.63E+00	630	2.71E+00	1.14E-01	630	2.71E+00	1.14E-01	630
I-129	1	0.00E+00	0.00E+00	1230	1.33E-08	1.10E-07	1230	1.33E-08	1.10E-07	1230
Grouted I-129	1	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	
U-233	(a)	8.49E-01	6.70E-07	10000	3.83E-03	2.90E-09	10000	8.70E-03	2.32E-08	10000
U-234	(a)	4.60E-01	3.63E-07	10000	4.85E+00	3.67E-06	10000	1.11E+01	2.96E-05	10000
U-235	(a)	1.90E-02	1.50E-08	10000	1.39E-01	1.05E-07	10000	3.15E-01	8.41E-07	10000
U-236	(a)	1.70E-02	1.34E-08	10000	6.27E-01	4.75E-07	10000	1.43E+00	3.82E-06	10000
U-238	(a)	4.10E-01	3.24E-07		7.78E+00	5.89E-06	10000	1.77E+01	4.72E-05	10000
200 West Area										
C-14	2000	1.42E-01	0.00E+00	>10000	1.48E-01	0.00E+00	>10000	3.37E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	6.93E+01	6.40E+00	1230	6.93E+01	6.40E+00	1230	6.93E+01	6.40E+00	1230
I-129	1	3.26E-07	3.27E-06	1700	3.40E-07	3.40E-06	1700	3.40E-07	3.40E-06	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	9.43E-02	0.00E+00	>10000	9.82E-02	0.00E+00	>10000	2.23E-01	0.00E+00	>10000
U-234	(a)	1.19E+02	0.00E+00	>10000	1.24E+02	0.00E+00	>10000	2.83E+02	0.00E+00	>10000
U-235	(a)	3.41E+00	0.00E+00	>10000	3.55E+00	0.00E+00	>10000	8.07E+00	0.00E+00	>10000
U-236	(a)	1.55E+01	0.00E+00	>10000	1.61E+01	0.00E+00	>10000	3.66E+01	0.00E+00	>10000
U-238	(a)	1.91E+02	0.00E+00	>10000	1.99E+02	0.00E+00	>10000	4.54E+02	0.00E+00	>10000

Table G.11. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.27E-02	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.18E+01	1230
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	8.66E+00	680
I-129	1	0.00E+00			0.00E+00			1.68E-02	1.39E-01	1230
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			2.22E-03	5.18E-05	10000
U-234	(a)	0.00E+00			0.00E+00			2.25E+02	5.24E+00	10000
U-235	(a)	0.00E+00			0.00E+00			9.96E+00	2.32E-01	10000
U-236	(a)	0.00E+00			0.00E+00			4.86E-02	1.13E-03	10000
U-238	(a)	0.00E+00			0.00E+00			2.33E+02	5.43E+00	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.44E+01	1700	3.44E+00	3.44E+01	1700	2.09E+00	2.09E+01	1700
Grouted Tc-99	900	4.91E+00	3.50E-01	1200	4.92E+00	3.51E-01	1200	5.96E+01	1.35E+00	1200
I-129	1	3.50E-02	3.51E-01	1700	3.51E-02	3.51E-01	1700	1.70E-02	1.70E-01	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	(a)	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	(a)	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	(a)	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	(a)	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	4.81E-01	3.84E-03	10000	5.86E-01	4.68E-03	10000	2.20E+00	1.76E-02	10000
Tc-99	900	4.08E-02	2.52E-01	1210	4.97E-02	3.08E-01	1210	1.84E-01	1.14E+00	1210
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	1.13E-04	7.01E-04	1210	1.38E-04	8.55E-04	1210	5.07E-04	3.14E-03	1210
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.39E-02	4.48E-04	10000	1.70E-02	5.20E-04	10000	6.24E-02	2.42E-03	10000
U-234	(a)	2.30E-02	7.41E-04	10000	2.81E-02	8.60E-04	10000	1.27E-01	4.93E-03	10000
U-235	(a)	4.84E-03	1.55E-04	10000	5.90E-03	1.81E-04	10000	2.33E-02	9.04E-04	10000
U-236	(a)	5.49E-04	1.76E-05	10000	6.69E-04	2.05E-05	10000	2.46E-03	9.55E-05	10000
U-238	(a)	5.51E-02	1.77E-03	10000	6.72E-02	2.06E-03	10000	2.87E-01	1.11E-02	10000
200 West Area										
C-14	2000	1.23E+01	0.00E+00	>10000	1.50E+01	0.00E+00	>10000	1.37E+01	0.00E+00	>10000
Tc-99	900	1.04E+00	9.25E+00	1770	1.27E+00	1.13E+01	1770	1.15E+00	1.02E+01	1770
Grouted Tc-99	900	0.00E+00			0.00E+00	0.00E+00		0.00E+00		
I-129	1	2.89E-03	2.57E-02	1770	3.53E-03	3.13E-02	1770	3.16E-03	2.81E-02	1770
Grouted I-129	1	0.00E+00			0.00E+00	0.00E+00		0.00E+00		
U-233	(a)	3.57E-01	0.00E+00	>10000	4.35E-01	1.69E-02	10000	3.90E-01	1.25E-02	10000
U-234	(a)	5.90E-01	0.00E+00	>10000	7.19E-01	2.79E-02	10000	7.93E-01	2.55E-02	10000
U-235	(a)	1.24E-01	0.00E+00	>10000	1.51E-01	5.86E-03	10000	1.45E-01	4.66E-03	10000
U-236	(a)	1.40E-02	0.00E+00	>10000	1.71E-02	6.64E-04	10000	1.53E-02	4.92E-04	10000
U-238	(a)	1.41E+00	0.00E+00	>10000	1.72E+00	6.68E-02	10000	1.79E+00	5.75E-02	10000

Table G.11. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	1.66E-02	1.33E-04	10000	1.73E-02	1.38E-04	10000	5.45E+00	8.21E-04	10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	1.21E+02	5.08E+00	630	1.21E+02	5.08E+00	630	1.21E+02	1.19E+00	860
I-129	1	7.35E-08	4.55E-07	1210	7.66E-08	4.74E-07	1210	7.66E-08	1.15E-07	1380
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.11E-02	9.13E-09	10000	1.16E-02	1.06E-08	10000	6.80E-03	1.29E-08	10000
U-234	(a)	1.40E+01	1.15E-05	10000	1.46E+01	1.33E-05	10000	1.17E+01	2.22E-05	10000
U-235	(a)	4.00E-01	3.28E-07	10000	4.17E-01	3.81E-07	10000	4.51E-01	8.56E-07	10000
U-236	(a)	1.81E+00	1.49E-06	10000	1.89E+00	1.73E-06	10000	1.09E+00	2.07E-06	10000
U-238	(a)	2.25E+01	1.84E-05	10000	2.34E+01	2.14E-05	10000	1.89E+01	3.59E-05	10000
200 West Area										
C-14	2000	4.27E-01	0.00E+00	>10000	4.45E-01	0.00E+00	>10000	1.39E+02	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.11E+03	2.87E+02	1230	3.11E+03	2.87E+02	1230	3.11E+03	2.87E+02	1710
I-129	1	1.88E-06	1.67E-05	1770	1.96E-06	1.74E-05	1770	1.96E-06	1.74E-05	2110
Grouted I-129	1	5.00E+00	1.46E-01	1230	5.00E+00	1.46E-01	1230	5.00E+00	1.46E-01	1710
U-233	(a)	2.86E-01	0.00E+00	>10000	2.98E-01	0.00E+00	>10000	1.73E-01	0.00E+00	>10000
U-234	(a)	3.59E+02	0.00E+00	>10000	3.74E+02	0.00E+00	>10000	2.99E+02	0.00E+00	>10000
U-235	(a)	1.03E+01	0.00E+00	>10000	1.07E+01	0.00E+00	>10000	1.15E+01	0.00E+00	>10000
U-236	(a)	4.64E+01	0.00E+00	>10000	4.83E+01	0.00E+00	>10000	2.78E+01	0.00E+00	>10000
U-238	(a)	5.77E+02	0.00E+00	>10000	6.01E+02	0.00E+00	>10000	4.85E+02	0.00E+00	>10000
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	4.32E+00	3.22E-02	10000	4.33E+00	3.22E-02	10000	5.70E+00	4.24E-02	10000
Tc-99	900	8.34E+00	8.61E+01	1250	8.36E+00	8.63E+01	1250	8.27E+00	8.53E+01	1250
Grouted Tc-99	900	1.57E+02	1.10E+01	680	1.57E+02	1.11E+01	680	3.34E+02	2.35E+01	680
I-129	1	1.04E-01	1.07E+00	1250	1.04E-01	1.07E+00	1250	1.05E-01	1.09E+00	1250
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.36E-02	4.14E-08	10000	1.36E-02	4.15E-08	10000	1.38E-02	4.68E-08	10000
U-234	(a)	1.61E+01	4.91E-05	10000	1.61E+01	4.92E-05	10000	3.40E+02	1.15E-03	10000
U-235	(a)	2.56E-01	7.82E-07	10000	2.57E-01	7.83E-07	10000	1.46E+01	4.97E-05	10000
U-236	(a)	3.01E-01	9.19E-07	10000	3.02E-01	9.20E-07	10000	3.05E-01	1.04E-06	10000
U-238	(a)	4.00E+00	1.22E-05	10000	4.01E+00	1.22E-05	10000	3.44E+02	1.17E-03	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

Table G.11. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	2.74E+00	680	3.89E+01	2.74E+00	680	3.89E+01	2.74E+00	680
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	8.49E-01	2.51E-06	10000	8.49E-01	2.51E-06	10000	8.49E-01	2.51E-06	10000
U-234	(a)	4.60E-01	1.36E-06	10000	4.60E-01	1.36E-06	10000	4.60E-01	1.36E-06	10000
U-235	(a)	1.90E-02	5.61E-08	10000	1.90E-02	5.61E-08	10000	1.90E-02	5.61E-08	10000
U-236	(a)	1.70E-02	5.02E-08	10000	1.70E-02	5.02E-08	10000	1.70E-02	5.02E-08	10000
U-238	(a)	4.10E-01	1.21E-06	10000	4.10E-01	1.21E-06	10000	4.10E-01	1.21E-06	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.12. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a Line of Analysis Along the Columbia River, Alternative Group B

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	1.25E-01	1.19E-05	10000	1.52E-01	1.45E-05	10000	7.20E-01	6.86E-05	10000
Tc-99	900	1.13E-02	1.58E-02	1400	1.38E-02	1.92E-02	1400	5.52E-02	7.69E-02	1400
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	9.84E-05	1.37E-04	1400	1.20E-04	1.67E-04	1400	4.42E-04	6.16E-04	1400
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	3.85E-03	8.28E-06	10000	4.70E-03	9.06E-06	10000	1.73E-02	1.29E-07	10000
U-234	(a)	6.38E-03	1.37E-05	10000	7.78E-03	1.50E-05	10000	1.25E-01	8.68E-05	10000
U-235	(a)	1.34E-03	2.87E-06	10000	1.63E-03	3.14E-06	10000	1.22E-02	8.47E-06	10000
U-236	(a)	1.52E-04	3.26E-07	10000	1.85E-04	3.56E-07	10000	6.80E-04	4.72E-07	10000
U-238	(a)	1.53E-02	3.28E-05	10000	1.86E-02	3.58E-05	10000	2.29E-01	1.59E-04	10000
200 West Area		0.00E+00							0.00E+00	0.00E+00
C-14	2000	3.21E+00	0.00E+00	>10000	3.91E+00	0.00E+00	>10000	4.49E+00	0.00E+00	>10000
Tc-99	900	2.89E-01	2.53E-01	2000	3.52E-01	3.09E-01	2000	3.44E-01	3.02E-01	2000
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.53E-03	2.21E-03	2000	3.08E-03	2.70E-03	2000	2.76E-03	2.42E-03	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	9.84E-02	0.00E+00	>10000	1.20E-01	0.00E+00	>10000	1.08E-01	0.00E+00	>10000
U-234	(a)	1.63E-01	0.00E+00	>10000	1.99E-01	0.00E+00	>10000	7.77E-01	0.00E+00	>10000
U-235	(a)	3.43E-02	0.00E+00	>10000	4.18E-02	0.00E+00	>10000	7.64E-02	0.00E+00	>10000
U-236	(a)	3.88E-03	0.00E+00	>10000	4.73E-03	0.00E+00	>10000	4.24E-03	0.00E+00	>10000
U-238	(a)	3.90E-01	0.00E+00	>10000	4.76E-01	0.00E+00	>10000	1.43E+00	0.00E+00	>10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			5.79E-03	5.52E-07	10000	1.32E-02	1.26E-06	10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	3.83E-01	860	2.71E+00	2.67E-02	860	2.71E+00	2.67E-02	860
I-129	1	0.00E+00			1.33E-08	1.85E-08	1400	1.33E-08	1.85E-08	1400
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	8.49E-01	2.01E-08	10000	3.83E-03	8.69E-11	10000	8.70E-03	2.49E-10	10000
U-234	(a)	4.60E-01	1.09E-08	10000	4.85E+00	1.10E-07	10000	1.11E+01	3.17E-07	10000
U-235	(a)	1.90E-02	4.49E-10	10000	1.39E-01	3.15E-09	10000	3.15E-01	9.00E-09	10000
U-236	(a)	1.70E-02	4.02E-10	10000	6.27E-01	1.42E-08	10000	1.43E+00	4.09E-08	10000
U-238	(a)	4.10E-01	9.69E-09	10000	7.78E+00	1.77E-07	10000	1.77E+01	5.06E-07	10000
200 West Area										
C-14	2000	1.42E-01	0.00E+00	>10000	1.48E-01	0.00E+00	>10000	3.37E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	6.93E+01	4.45E-01	1710	6.93E+01	4.45E-01	1710	6.93E+01	4.45E-01	1710
I-129	1	3.26E-07	2.86E-07	2000	3.40E-07	2.98E-07	2000	3.40E-07	2.98E-07	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	9.43E-02	0.00E+00	>10000	9.82E-02	0.00E+00	>10000	2.23E-01	0.00E+00	>10000
U-234	(a)	1.19E+02	0.00E+00	>10000	1.24E+02	0.00E+00	>10000	2.83E+02	0.00E+00	>10000
U-235	(a)	3.41E+00	0.00E+00	>10000	3.55E+00	0.00E+00	>10000	8.07E+00	0.00E+00	>10000
U-236	(a)	1.55E+01	0.00E+00	>10000	1.61E+01	0.00E+00	>10000	3.66E+01	0.00E+00	>10000
U-238	(a)	1.91E+02	0.00E+00	>10000	1.99E+02	0.00E+00	>10000	0.00E+00	0.00E+00	>10000

Table G.12. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.52E-04	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.99E+00	1400
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	1.06E+00	940
I-129	1	0.00E+00			0.00E+00			1.68E-02	2.34E-02	1400
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			2.22E-03	0.00E+00	10000
U-234	(a)	0.00E+00			0.00E+00			2.25E+02	0.00E+00	10000
U-235	(a)	0.00E+00			0.00E+00			9.96E+00	0.00E+00	10000
U-236	(a)	0.00E+00			0.00E+00			4.86E-02	0.00E+00	10000
U-238	(a)	0.00E+00			0.00E+00			2.33E+02	0.00E+00	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.01E+00	2000	3.44E+00	3.02E+00	2000	2.09E+00	1.83E+00	2000
Grouted Tc-99	900	4.91E+00	3.36E-02	1620	4.92E+00	3.37E-02	1620	5.96E+01	4.08E-01	1620
I-129	1	3.50E-02	3.07E-02	2000	3.51E-02	3.08E-02	2000	1.70E-02	1.49E-02	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	(a)	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	(a)	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	(a)	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	(a)	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	4.81E-01	7.24E-05	10000	5.86E-01	8.83E-05	10000	2.20E+00	3.31E-04	10000
Tc-99	900	4.08E-02	6.10E-02	1380	4.97E-02	7.44E-02	1380	1.84E-01	2.75E-01	1380
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	1.13E-04	1.69E-04	1380	1.38E-04	2.06E-04	1380	5.07E-04	7.59E-04	1380
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.39E-02	4.48E-04	10000	1.70E-02	5.20E-04	10000	6.24E-02	2.42E-03	10000
U-234	(a)	2.30E-02	7.41E-04	10000	2.81E-02	8.60E-04	10000	1.27E-01	4.93E-03	10000
U-235	(a)	4.84E-03	1.55E-04	10000	5.90E-03	1.81E-04	10000	2.33E-02	9.04E-04	10000
U-236	(a)	5.49E-04	1.76E-05	10000	6.69E-04	2.05E-05	10000	2.46E-03	9.55E-05	10000
U-238	(a)	5.51E-02	1.77E-03	10000	6.72E-02	2.06E-03	10000	2.87E-01	1.11E-02	10000
200 West Area										
C-14	2000	1.23E+01	0.00E+00	>10000	1.50E+01	0.00E+00	>10000	1.37E+01	0.00E+00	>10000
Tc-99	900	1.04E+00	8.44E-01	2110	1.27E+00	1.03E+00	2110	1.15E+00	9.32E-01	2110
Grouted Tc-99	900	0.00E+00			0.00E+00	0.00E+00		0.00E+00		
I-129	1	2.89E-03	2.35E-03	2110	3.53E-03	2.86E-03	2110	3.16E-03	2.56E-03	2110
Grouted I-129	1	0.00E+00			0.00E+00	0.00E+00		0.00E+00		
U-233	(a)	3.57E-01	0.00E+00	>10000	4.35E-01	0.00E+00	>10000	3.90E-01	0.00E+00	>10000
U-234	(a)	5.90E-01	0.00E+00	>10000	7.19E-01	0.00E+00	>10000	7.93E-01	0.00E+00	>10000
U-235	(a)	1.24E-01	0.00E+00	>10000	1.51E-01	0.00E+00	>10000	1.45E-01	0.00E+00	>10000
U-236	(a)	1.40E-02	0.00E+00	>10000	1.71E-02	0.00E+00	>10000	1.53E-02	0.00E+00	>10000
U-238	(a)	1.41E+00	0.00E+00	>10000	1.72E+00	0.00E+00	>10000	1.79E+00	0.00E+00	>10000

Table G.12. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	1.66E-02	2.50E-06	10000	1.73E-02	2.61E-06		5.45E+00	8.21E-04	10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	1.21E+02	1.19E+00	860	1.21E+02	1.19E+00	860	1.21E+02	1.19E+00	860
I-129	1	7.35E-08	1.10E-07	1380	7.66E-08	2.06E-04		7.66E-08	1.15E-07	1380
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.11E-02	1.49E-10	10000	1.16E-02	1.73E-10	10000	6.80E-03	2.11E-10	10000
U-234	(a)	1.40E+01	1.88E-07	10000	1.46E+01	2.18E-07	10000	1.17E+01	3.63E-07	10000
U-235	(a)	4.00E-01	5.36E-09	10000	4.17E-01	6.23E-09	10000	4.51E-01	1.40E-08	10000
U-236	(a)	1.81E+00	2.43E-08	10000	1.89E+00	2.82E-08	10000	1.09E+00	3.38E-08	10000
U-238	(a)	2.25E+01	3.01E-07	10000	2.34E+01	3.50E-07	10000	1.89E+01	5.87E-07	10000
200 West Area		0.00E+00								
C-14	2000	4.27E-01	0.00E+00	>10000	4.45E-01	0.00E+00	>10000	1.39E+02	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.11E+03	1.99E+01	1710	3.11E+03	1.99E+01	1710	3.11E+03	1.99E+01	1710
I-129	1	1.88E-06	1.52E-06	2110	1.96E-06	1.59E-06	2110	1.96E-06	1.59E-06	2110
Grouted I-129	1	5.00E+00	1.01E-02	1710	5.00E+00	1.01E-02	1710	5.00E+00	1.01E-02	1710
U-233	(a)	2.86E-01	0.00E+00	>10000	2.98E-01	0.00E+00	>10000	1.73E-01	0.00E+00	>10000
U-234	(a)	3.59E+02	0.00E+00	>10000	3.74E+02	0.00E+00	>10000	2.99E+02	0.00E+00	>10000
U-235	(a)	1.03E+01	0.00E+00	>10000	1.07E+01	0.00E+00	>10000	1.15E+01	0.00E+00	>10000
U-236	(a)	4.64E+01	0.00E+00	>10000	4.83E+01	0.00E+00	>10000	2.78E+01	0.00E+00	>10000
U-238	(a)	5.77E+02	0.00E+00	>10000	6.01E+02	0.00E+00	>10000	4.85E+02	0.00E+00	>10000
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	4.32E+00	1.86E-04	10000	4.33E+00	1.86E-04	10000	5.70E+00	2.45E-04	10000
Tc-99	900	8.34E+00	1.08E+01	1430	8.36E+00	1.09E+01	1430	8.27E+00	1.07E+01	1430
Grouted Tc-99	900	1.57E+02	1.35E+00	940	1.57E+02	1.36E+00	940	3.34E+02	2.89E+00	940
I-129	1	1.04E-01	1.35E-01	1430	1.04E-01	1.35E-01	1430	1.05E-01	1.37E-01	1430
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.36E-02	2.21E-10	10000	1.36E-02	2.22E-10	10000	1.38E-02	2.51E-10	10000
U-234	(a)	1.61E+01	2.63E-07	10000	1.61E+01	2.63E-07	10000	3.40E+02	6.18E-06	10000
U-235	(a)	2.56E-01	4.18E-09	10000	2.57E-01	4.19E-09	10000	1.46E+01	2.66E-07	10000
U-236	(a)	3.01E-01	4.92E-09	10000	3.02E-01	4.93E-09	10000	3.05E-01	5.55E-09	10000
U-238	(a)	4.00E+00	6.53E-08	10000	4.01E+00	6.54E-08	10000	3.44E+02	6.25E-06	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

Table G.12. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	3.37E-01	940	3.89E+01	3.37E-01	940	3.89E+01	3.37E-01	940
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	8.49E-01	1.33E-08	10000	8.49E-01	1.33E-08	10000	8.49E-01	1.33E-08	10000
U-234	30	4.60E-01	7.23E-09	10000	4.60E-01	7.23E-09	10000	4.60E-01	7.23E-09	10000
U-235	30	1.90E-02	2.99E-10	10000	1.90E-02	2.99E-10	10000	1.90E-02	2.99E-10	10000
U-236	30	1.70E-02	2.67E-10	10000	1.70E-02	2.67E-10	10000	1.70E-02	2.67E-10	10000
U-238	30	4.10E-01	6.44E-09	10000	4.10E-01	6.44E-09	10000	4.10E-01	6.44E-09	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.13. Predicted Peak River Flux of Key Constituents by Waste and Category at a Line of Analysis to the Columbia River, Alternative Group B

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW									
200 East Area									
C-14	1.25E-01	1.46E-03	690	1.52E-01	1.78E-03	690	7.20E-01	8.44E-03	690
Tc-99	1.13E-02	1.47E-04	1450	1.38E-02	1.79E-04	1450	5.52E-02	7.17E-04	1450
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	9.84E-05	1.28E-06	1450	1.20E-04	1.56E-06	1450	4.42E-04	5.74E-06	1450
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	3.85E-03	4.54E-08	10000	4.70E-03	4.92E-08	10000	1.73E-02	5.78E-10	10000
U-234	6.38E-03	7.52E-08	10000	7.78E-03	8.15E-08	10000	1.25E-01	8.68E-05	10000
U-235	1.34E-03	1.58E-08	10000	1.63E-03	1.71E-08	10000	1.22E-02	8.47E-06	10000
U-236	1.52E-04	1.79E-09	10000	1.85E-04	1.94E-09	10000	6.80E-04	4.72E-07	10000
U-238	1.53E-02	1.80E-07	10000	1.86E-02	1.95E-07	10000	2.29E-01	1.59E-04	10000
200 West Area									
C-14	3.21E+00	0.00E+00	>10000	3.91E+00	0.00E+00	>10000	4.49E+00	0.00E+00	>10000
Tc-99	2.89E-01	0.00E+00	>10000	3.52E-01	0.00E+00	>10000	3.44E-01	0.00E+00	>10000
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	2.53E-03	0.00E+00	>10000	3.08E-03	0.00E+00	>10000	2.76E-03	0.00E+00	>10000
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	9.84E-02	0.00E+00	>10000	1.20E-01	0.00E+00	>10000	1.08E-01	0.00E+00	>10000
U-234	1.63E-01	0.00E+00	>10000	1.99E-01	0.00E+00	>10000	7.77E-01	0.00E+00	>10000
U-235	3.43E-02	0.00E+00	>10000	4.18E-02	0.00E+00	>10000	7.64E-02	0.00E+00	>10000
U-236	3.88E-03	0.00E+00	>10000	4.73E-03	0.00E+00	>10000	4.24E-03	0.00E+00	>10000
U-238	3.90E-01	0.00E+00	>10000	4.76E-01	0.00E+00	>10000	1.43E+00	0.00E+00	>10000
1996-2007 Cat 3 LLW									
200 East Area									
C-14	5.56E-03	6.51E-05	690	5.79E-03	5.79E-03	690	1.32E-02	1.32E-02	690
Tc-99	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	
Grouted Tc-99	2.71E+00	2.51E-04	970	2.71E+00	2.71E+00	970	2.71E+00	2.71E+00	970
I-129	1.28E-08	1.66E-10	1450	1.33E-08	1.33E-08	1450	1.33E-08	1.33E-08	1450
Grouted I-129	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	
U-233	3.68E-03	4.57E-13	10000	3.83E-03	3.83E-03	10000	8.70E-03	8.70E-03	10000
U-234	4.66E+00	5.79E-10	10000	4.85E+00	4.85E+00	10000	1.11E+01	1.11E+01	10000
U-235	1.33E-01	1.66E-11	10000	1.39E-01	1.39E-01	10000	3.15E-01	3.15E-01	10000
U-236	6.02E-01	7.48E-11	10000	6.27E-01	6.27E-01	10000	1.43E+00	1.43E+00	10000
U-238	7.47E+00	9.29E-10	10000	7.78E+00	7.78E+00	10000	1.77E+01	1.77E+01	10000
200 West Area									
C-14	1.42E-01	0.00E+00	>10000	1.48E-01	0.00E+00	>10000	3.37E-01	0.00E+00	>10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	6.93E+01	5.78E-03	1840	6.93E+01	5.78E-03	1840	6.93E+01	5.78E-03	1840
I-129	3.26E-07	0.00E+00	>10000	3.40E-07	0.00E+00	>10000	3.40E-07	0.00E+00	>10000
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	9.43E-02	0.00E+00	>10000	9.82E-02	0.00E+00	>10000	2.23E-01	0.00E+00	>10000
U-234	1.19E+02	0.00E+00	>10000	1.24E+02	0.00E+00	>10000	2.83E+02	0.00E+00	>10000
U-235	3.41E+00	0.00E+00	>10000	3.55E+00	0.00E+00	>10000	8.07E+00	0.00E+00	>10000
U-236	1.55E+01	0.00E+00	>10000	1.61E+01	0.00E+00	>10000	3.66E+01	0.00E+00	>10000
U-238	1.91E+02	0.00E+00	>10000	1.99E+02	0.00E+00	>10000	0.00E+00	0.00E+00	>10000

Table G.13. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			1.60E+00	6.81E-07	10000
Tc-99	0.00E+00			0.00E+00			1.43E+00	1.86E-02	1450
Grouted Tc-99	0.00E+00			0.00E+00			1.23E+02	1.01E-02	870
I-129	0.00E+00			0.00E+00			1.68E-02	2.18E-04	1450
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			2.22E-03	0.00E+00	>10000
U-234	0.00E+00			0.00E+00			2.25E+02	0.00E+00	>10000
U-235	0.00E+00			0.00E+00			9.96E+00	0.00E+00	>10000
U-236	0.00E+00			0.00E+00			4.86E-02	0.00E+00	>10000
U-238	0.00E+00			0.00E+00			2.33E+02	0.00E+00	>10000
200 West Area									
C-14	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	3.43E+00	3.26E-02	2180	3.44E+00	3.27E-02	2180	2.09E+00	1.99E-02	2180
Grouted Tc-99	4.91E+00	4.10E-04	1840	4.92E+00	4.10E-04	1840	5.96E+01	4.97E-03	1840
I-129	3.50E-02	0.00E+00	>10000	3.51E-02	0.00E+00	>10000	1.70E-02	0.00E+00	>10000
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008									
200 East Area									
C-14	4.81E-01	2.05E-07	10000	5.86E-01	2.49E-07	10000	2.20E+00	9.37E-07	10000
Tc-99	4.08E-02	5.29E-04	1450	4.97E-02	6.46E-04	1450	1.84E-01	2.39E-03	1450
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	1.13E-04	1.47E-06	1450	1.38E-04	1.79E-06	1450	5.07E-04	6.59E-06	1450
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.39E-02	4.21E-08	10000	1.70E-02	4.89E-08	10000	6.24E-02	2.83E-07	10000
U-234	2.30E-02	6.96E-08	10000	2.81E-02	8.09E-08	10000	1.27E-01	5.75E-07	10000
U-235	4.84E-03	1.46E-08	10000	5.90E-03	1.70E-08	10000	2.33E-02	1.05E-07	10000
U-236	5.49E-04	1.66E-09	10000	6.69E-04	1.93E-09	10000	2.46E-03	1.11E-08	10000
U-238	5.51E-02	1.66E-07	10000	6.72E-02	1.93E-07	10000	2.87E-01	1.30E-06	10000
200 West Area									
C-14	1.23E+01	0.00E+00	>10000	1.50E+01	0.00E+00	>10000	1.37E+01	0.00E+00	>10000
Tc-99	1.04E+00	9.90E-03	2180	1.27E+00	1.21E-02	2180	1.15E+00	1.09E-02	2180
Grouted Tc-99	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
I-129	2.89E-03	2.75E-05	2180	3.53E-03	3.35E-05	2180	3.16E-03	3.00E-05	2180
Grouted I-129	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
U-233	3.57E-01	0.00E+00	>10000	4.35E-01	0.00E+00	>10000	3.90E-01	0.00E+00	>10000
U-234	5.90E-01	0.00E+00	>10000	7.19E-01	0.00E+00	>10000	7.93E-01	0.00E+00	>10000
U-235	1.24E-01	0.00E+00	>10000	1.51E-01	0.00E+00	>10000	1.45E-01	0.00E+00	>10000
U-236	1.40E-02	0.00E+00	>10000	1.71E-02	0.00E+00	>10000	1.53E-02	0.00E+00	>10000
U-238	1.41E+00	0.00E+00	>10000	1.72E+00	0.00E+00	>10000	1.79E+00	0.00E+00	>10000

Table G.13. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008									
200 East Area									
C-14	1.66E-02	1.79E-04	1490	1.73E-02	1.87E-04	1490	5.45E+00	5.88E-02	1490
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	1.21E+02	1.12E-02	970	1.21E+02	1.12E-02	970	1.21E+02	1.12E-02	970
I-129	7.35E-08	3.45E-13	10000	7.66E-08	3.59E-13	10000	7.66E-08	3.59E-13	10000
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.11E-02	3.31E-08	10000	1.16E-02	3.34E-08	10000	6.80E-03	3.07E-08	10000
U-234	1.40E+01	4.16E-05	10000	1.46E+01	4.20E-05	10000	1.17E+01	5.28E-05	10000
U-235	4.00E-01	1.19E-06	10000	4.17E-01	1.20E-06	10000	4.51E-01	2.04E-06	10000
U-236	1.81E+00	5.39E-06	10000	1.89E+00	5.44E-06	10000	1.09E+00	4.92E-06	10000
U-238	2.25E+01	6.67E-05	10000	2.34E+01	6.73E-05	10000	1.89E+01	8.53E-05	10000
200 West Area	0.00E+00								
C-14	4.27E-01	0.00E+00	>10000	4.45E-01	0.00E+00	>10000	1.39E+02	0.00E+00	>10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.11E+03	2.59E-01	1840	3.11E+03	2.59E-01	1840	3.11E+03	2.59E-01	1840
I-129	1.88E-06	1.79E-08	2180	1.96E-06	1.86E-08	2180	1.96E-06	1.86E-08	2180
Grouted I-129	5.00E+00	1.32E-04	1840	5.00E+00	1.32E-04	1840	5.00E+00	1.32E-04	1840
U-233	2.86E-01	0.00E+00	>10000	2.98E-01	0.00E+00	>10000	1.73E-01	0.00E+00	>10000
U-234	3.59E+02	0.00E+00	>10000	3.74E+02	0.00E+00	>10000	2.99E+02	0.00E+00	>10000
U-235	1.03E+01	0.00E+00	>10000	1.07E+01	0.00E+00	>10000	1.15E+01	0.00E+00	>10000
U-236	4.64E+01	0.00E+00	>10000	4.83E+01	0.00E+00	>10000	2.78E+01	0.00E+00	>10000
U-238	5.77E+02	0.00E+00	>10000	6.01E+02	0.00E+00	>10000	4.85E+02	0.00E+00	>10000
Projected Mixed LLW After 2008									
200 East Area									
C-14	4.32E+00	1.08E-06	10000	4.33E+00	1.09E-06	10000	5.70E+00	1.43E-06	10000
Tc-99	8.34E+00	1.04E-01	1480	8.36E+00	1.04E-01	1480	8.27E+00	1.03E-01	1480
Grouted Tc-99	1.57E+02	1.45E-02	970	1.57E+02	1.45E-02	970	3.34E+02	3.09E-02	970
I-129	1.04E-01	1.29E-03	1480	1.04E-01	1.29E-03	1480	1.05E-01	1.31E-03	1480
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.36E-02	2.19E-12	10000	1.36E-02	2.19E-12	10000	1.38E-02	2.48E-12	10000
U-234	1.61E+01	2.60E-09	10000	1.61E+01	2.60E-09	10000	3.40E+02	6.11E-08	10000
U-235	2.56E-01	4.14E-11	10000	2.57E-01	4.15E-11	10000	1.46E+01	2.63E-09	10000
U-236	3.01E-01	4.86E-11	10000	3.02E-01	4.87E-11	10000	3.05E-01	5.49E-11	10000
U-238	4.00E+00	6.46E-10	10000	4.01E+00	6.47E-10	10000	3.44E+02	6.18E-08	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.13. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.89E+01	3.60E-03	970	3.89E+01	3.60E-03	970	3.89E+01	3.60E-03	970
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	8.49E-01	7.84E-11	>10000	8.49E-01	7.84E-11	>10000	8.49E-01	7.84E-11	>10000
U-234	4.60E-01	4.25E-11	>10000	4.60E-01	4.25E-11	>10000	4.60E-01	4.25E-11	>10000
U-235	1.90E-02	1.75E-12	>10000	1.90E-02	1.75E-12	>10000	1.90E-02	1.75E-12	>10000
U-236	1.70E-02	1.57E-12	>10000	1.70E-02	1.57E-12	>10000	1.70E-02	1.57E-12	>10000
U-238	4.10E-01	3.79E-11	>10000	4.10E-01	3.79E-11	>10000	4.10E-01	3.79E-11	>10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.14. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a 1-km Line of Analysis, Alternative Group C

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	4.06E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.66E-01	3.00E+00	1700	3.66E-01	3.66E+00	1700	3.99E-01	3.99E+00	1700
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	3.20E-03	3.20E-02	1700	3.20E-03	3.20E-02	1700	3.20E-03	3.20E-02	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.25E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000
U-234	(a)	2.07E-01	0.00E+00	>10000	2.07E-01	0.00E+00	>10000	9.01E-01	0.00E+00	>10000
U-235	(a)	4.34E-02	0.00E+00	>10000	4.34E-02	0.00E+00	>10000	8.86E-02	0.00E+00	>10000
U-236	(a)	4.92E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000
U-238	(a)	4.95E-01	0.00E+00	>10000	4.95E-01	0.00E+00	>10000	1.66E+00	0.00E+00	>10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.54E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	6.64E+00	1230	7.20E+01	6.64E+00	1230	7.20E+01	6.64E+00	1230
I-129	1	3.53E-07	3.53E-06	1700	3.53E-07	3.53E-06	1700	3.53E-07	3.53E-06	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	2.32E-01	0.00E+00	>10000
U-234	(a)	1.29E+02	0.00E+00	>10000	1.29E+02	0.00E+00	>10000	2.94E+02	0.00E+00	>10000
U-235	(a)	3.69E+00	0.00E+00	>10000	3.69E+00	0.00E+00	>10000	8.39E+00	0.00E+00	>10000
U-236	(a)	1.67E+01	0.00E+00	>10000	1.67E+01	0.00E+00	>10000	3.80E+01	0.00E+00	>10000
U-238	(a)	2.07E+02	0.00E+00	>10000	2.07E+02	0.00E+00	>10000	4.72E+02	0.00E+00	>10000

Table G.14. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.27E-02	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.18E+01	1230
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	8.66E+00	680
I-129	1	0.00E+00			0.00E+00			1.68E-02	1.39E-01	1230
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			2.22E-03	5.18E-05	10000
U-234	(a)	0.00E+00			0.00E+00			2.25E+02	5.24E+00	10000
U-235	(a)	0.00E+00			0.00E+00			9.96E+00	2.32E-01	10000
U-236	(a)	0.00E+00			0.00E+00			4.86E-02	1.13E-03	10000
U-238	(a)	0.00E+00			0.00E+00			2.33E+02	5.43E+00	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.44E+00	3.44E+01	1700	3.44E+00	3.44E+01	1700	2.09E+00	2.09E+01	1700
Grouted Tc-99	900	4.92E+00	3.51E-01	1200	4.92E+00	3.51E-01	1200	5.96E+01	4.25E+00	1200
I-129	1	3.51E-02	3.51E-01	1700	3.51E-02	3.51E-01	1700	1.70E-02	1.70E-01	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	4.60E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	(a)	5.45E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	(a)	8.70E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	(a)	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	(a)	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.56E+01	0.00E+00	>10000	1.56E+01	0.00E+00	>10000	1.59E+01	0.00E+00	>10000
Tc-99	900	1.32E+00	8.98E+00	1910	1.32E+00	1.09E+01	1910	1.33E+00	1.10E+01	1910
Grouted Tc-99	900	0.00E+00			0.00E+00	0.00E+00		0.00E+00		
I-129	1	3.67E-03	2.50E-02	1910	3.67E-03	3.04E-02	1910	3.67E-03	3.04E-02	1910
Grouted I-129	1	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00		
U-233	(a)	4.52E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000
U-234	(a)	7.47E-01	0.00E+00	>10000	7.47E-01	0.00E+00	>10000	9.21E-01	0.00E+00	>10000
U-235	(a)	1.57E-01	0.00E+00	>10000	1.57E-01	0.00E+00	>10000	1.68E-01	0.00E+00	>10000
U-236	(a)	1.78E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000
U-238	(a)	1.79E+00	0.00E+00	>10000	1.79E+00	0.00E+00	>10000	2.08E+00	0.00E+00	>10000

Table G.14. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	4.62E-01	0.00E+00	>10000	4.62E-01	0.00E+00	>10000	1.45E+02	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.23E+03	2.98E+02	1230	3.23E+03	2.98E+02	1230	3.23E+03	2.98E+02	1230
I-129	1	2.04E-06	1.69E-05	1910	2.04E-06	1.69E-05	1910	2.04E-06	1.69E-05	1910
Grouted I-129	1	5.00E+00	1.46E-01	1230	5.00E+00	1.46E-01	1230	5.00E+00	1.46E-01	1230
U-233	(a)	3.10E-01	0.00E+00	>10000	3.10E-01	0.00E+00	>10000	1.80E-01	0.00E+00	>10000
U-234	(a)	3.89E+02	0.00E+00	>10000	3.89E+02	0.00E+00	>10000	3.11E+02	0.00E+00	>10000
U-235	(a)	1.11E+01	0.00E+00	>10000	1.11E+01	0.00E+00	>10000	1.20E+01	0.00E+00	>10000
U-236	(a)	5.02E+01	0.00E+00	>10000	5.02E+01	0.00E+00	>10000	2.89E+01	0.00E+00	>10000
U-238	(a)	6.24E+02	0.00E+00	>10000	6.24E+02	0.00E+00	>10000	5.04E+02	0.00E+00	>10000
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	4.33E+00	1.01E-02	10000	4.33E+00	1.01E-02	10000	5.70E+00	1.34E-02	10000
Tc-99	900	8.36E+00	6.80E+01	1370	8.36E+00	6.80E+01	1370	8.27E+00	6.73E+01	1370
Grouted Tc-99	900	1.57E+02	1.11E+01	680	1.57E+02	1.11E+01	680	3.34E+02	2.35E+01	680
I-129	1	1.04E-01	8.44E-01	1370	1.04E-01	8.46E-01	1370	1.05E-01	8.56E-01	1370
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.36E-02	4.15E-08	10000	1.36E-02	4.15E-08	10000	1.38E-02	4.20E-08	10000
U-234	(a)	1.61E+01	4.92E-05	10000	1.61E+01	4.92E-05	10000	3.40E+02	1.04E-03	10000
U-235	(a)	2.57E-01	7.83E-07	10000	2.57E-01	7.83E-07	10000	1.46E+01	4.46E-05	10000
U-236	(a)	3.02E-01	9.20E-07	10000	3.02E-01	9.20E-07	10000	3.05E-01	9.31E-07	10000
U-238	(a)	4.01E+00	1.22E-05	10000	4.01E+00	1.22E-05	10000	3.44E+02	1.05E-03	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

Table G.14. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	1.87E+00	680	3.89E+01	1.87E+00	680	3.89E+01	1.87E+00	680
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	8.49E-01	1.79E-06	10000	8.49E-01	1.79E-06	10000	8.49E-01	1.79E-06	10000
U-234	(a)	4.60E-01	9.68E-07	10000	4.60E-01	9.68E-07	10000	4.60E-01	9.68E-07	10000
U-235	(a)	1.90E-02	4.00E-08	10000	1.90E-02	4.00E-08	10000	1.90E-02	4.00E-08	10000
U-236	(a)	1.70E-02	3.58E-08	10000	1.70E-02	3.58E-08	10000	1.70E-02	3.58E-08	10000
U-238	(a)	4.10E-01	8.62E-07	10000	4.10E-01	8.62E-07	10000	4.10E-01	8.62E-07	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.15. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a Line of Analysis Along the Columbia River, Alternative Group C

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.00E-01	2.63E-01	2000	3.66E-01	3.21E-01	2000	3.99E-01	3.50E-01	2000
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.62E-03	2.30E-03	2000	3.20E-03	2.81E-03	2000	3.20E-03	2.81E-03	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.03E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000
U-234	(a)	1.70E-01	0.00E+00	>10000	2.07E-01	0.00E+00	>10000	9.01E-01	0.00E+00	>10000
U-235	(a)	3.56E-02	0.00E+00	>10000	4.34E-02	0.00E+00	>10000	8.86E-02	0.00E+00	>10000
U-236	(a)	4.03E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000
U-238	(a)	4.06E-01	0.00E+00	>10000	4.95E-01	0.00E+00	>10000	1.66E+00	0.00E+00	>10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710
I-129	1	3.39E-07	2.97E-07	2000	3.53E-07	3.09E-07	2000	3.53E-07	3.09E-07	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	9.79E-02	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	2.32E-01	0.00E+00	>10000
U-234	(a)	1.24E+02	0.00E+00	>10000	1.29E+02	0.00E+00	>10000	2.94E+02	0.00E+00	>10000
U-235	(a)	3.54E+00	0.00E+00	>10000	3.69E+00	0.00E+00	>10000	8.39E+00	0.00E+00	>10000
U-236	(a)	1.60E+01	0.00E+00	>10000	1.67E+01	0.00E+00	>10000	3.80E+01	0.00E+00	>10000
U-238	(a)	1.99E+02	0.00E+00	>10000	2.07E+02	0.00E+00	>10000	4.72E+02	0.00E+00	>10000

Table G.15. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.52E-04	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.36E-04	10000
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	1.06E+00	940
I-129	1	0.00E+00			0.00E+00			1.68E-02	1.60E-06	10000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			2.22E-03	1.61E-06	10000
U-234	(a)	0.00E+00			0.00E+00			2.25E+02	1.63E-01	10000
U-235	(a)	0.00E+00			0.00E+00			9.96E+00	7.21E-03	10000
U-236	(a)	0.00E+00			0.00E+00			4.86E-02	3.52E-05	10000
U-238	(a)	0.00E+00			0.00E+00			2.33E+02	1.69E-01	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.01E+00	2000	3.44E+00	3.02E+00	2000	2.09E+00	1.83E+00	2000
Grouted Tc-99	900	4.91E+00	3.36E-02	1620	4.92E+00	3.37E-02	1620	5.96E+01	4.08E-01	1620
I-129	1	3.50E-02	3.07E-02	2000	3.51E-02	3.08E-02	2000	1.70E-02	1.49E-02	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	(a)	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	(a)	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	(a)	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	(a)	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.28E+01	0.00E+00	>10000	1.56E+01	0.00E+00	>10000	1.59E+01	0.00E+00	>10000
Tc-99	900	1.08E+00	8.33E-01	2260	1.32E+00	1.02E+00	2260	1.33E+00	1.02E+00	2260
Grouted Tc-99	900	0.00E+00			0.00E+00	0.00E+00		0.00E+00	0.00E+00	
I-129	1	3.01E-03	2.32E-03	2260	3.67E-03	2.83E-03	2260	3.67E-03	2.83E-03	2260
Grouted I-129	1	0.00E+00			0.00E+00	0.00E+00		0.00E+00	0.00E+00	
U-233	(a)	3.71E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000
U-234	(a)	6.13E-01	0.00E+00	>10000	7.47E-01	0.00E+00	>10000	9.21E-01	0.00E+00	>10000
U-235	(a)	1.29E-01	0.00E+00	>10000	1.57E-01	0.00E+00	>10000	1.68E-01	0.00E+00	>10000
U-236	(a)	1.46E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000
U-238	(a)	1.47E+00	0.00E+00	>10000	1.79E+00	0.00E+00	>10000	2.08E+00	0.00E+00	>10000

Table G.15. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	4.44E-01	0.00E+00	>10000	4.62E-01	0.00E+00	>10000	1.45E+02	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.23E+03	2.07E+01	1710	3.23E+03	2.07E+01	1710	3.23E+03	2.07E+01	1710
I-129	1	1.96E-06	1.51E-06	2260	2.04E-06	1.57E-06	2260	2.04E-06	1.57E-06	2260
Grouted I-129	1	5.00E+00	1.01E-02	4930	5.00E+00	1.01E-02	4930	5.00E+00	1.01E-02	4930
U-233	(a)	2.98E-01	0.00E+00	>10000	3.10E-01	0.00E+00	>10000	1.80E-01	0.00E+00	>10000
U-234	(a)	3.73E+02	0.00E+00	>10000	3.89E+02	0.00E+00	>10000	3.11E+02	0.00E+00	>10000
U-235	(a)	1.07E+01	0.00E+00	>10000	1.11E+01	0.00E+00	>10000	1.20E+01	0.00E+00	>10000
U-236	(a)	4.82E+01	0.00E+00	>10000	5.02E+01	0.00E+00	>10000	2.89E+01	0.00E+00	>10000
U-238	(a)	5.99E+02	0.00E+00	>10000	6.24E+02	0.00E+00	>10000	5.04E+02	0.00E+00	>10000
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	4.32E+00	6.36E-05	10000	4.33E+00	6.38E-05	10000	5.70E+00	8.39E-05	10000
Tc-99	900	8.34E+00	9.43E+00	1590	8.36E+00	9.44E+00	1590	8.27E+00	9.34E+00	1590
Grouted Tc-99	900	1.57E+02	1.35E+00	940	1.57E+02	1.36E+00	940	3.34E+02	2.89E+00	940
I-129	1	1.04E-01	1.17E-01	1590	1.04E-01	1.17E-01	1590	1.05E-01	1.19E-01	1590
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.36E-02	2.21E-10	10000	1.36E-02	2.22E-10	10000	1.38E-02	2.25E-10	10000
U-234	(a)	1.61E+01	2.63E-07	10000	1.61E+01	2.63E-07	10000	3.40E+02	5.55E-06	10000
U-235	(a)	2.56E-01	4.18E-09	10000	2.57E-01	4.19E-09	10000	1.46E+01	2.39E-07	10000
U-236	(a)	3.01E-01	4.92E-09	10000	3.02E-01	4.93E-09	10000	3.05E-01	4.98E-09	10000
U-238	(a)	4.00E+00	6.53E-08	10000	4.01E+00	6.54E-08	10000	3.44E+02	5.61E-06	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

Table G.15. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	2.03E-01	820	3.89E+01	2.03E-01	820	3.89E+01	2.03E-01	820
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	8.49E-01	2.21E-08	10000	8.49E-01	2.21E-08	10000	8.49E-01	2.21E-08	10000
U-234	(a)	4.60E-01	1.20E-08	10000	4.60E-01	1.20E-08	10000	4.60E-01	1.20E-08	10000
U-235	(a)	1.90E-02	4.96E-10	10000	1.90E-02	4.96E-10	10000	1.90E-02	4.96E-10	10000
U-236	(a)	1.70E-02	4.43E-10	10000	1.70E-02	4.43E-10	10000	1.70E-02	4.43E-10	10000
U-238	(a)	4.10E-01	1.07E-08	10000	4.10E-01	1.07E-08	10000	4.10E-01	1.07E-08	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
Tc-99	900	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
I-129	1	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
U-233	(a)	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
U-234	(a)	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
U-235	(a)	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
U-236	(a)	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
U-238	(a)	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.16. Predicted Peak River Flux of Key Constituents by Waste and Category at a Line of Analysis to the Columbia River, Alternative Group C

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	3.00E-01	2.85E-03	2180	3.66E-01	3.48E-03	2180	3.99E-01	3.79E-03	2180
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	2.62E-03	2.49E-05	2180	3.20E-03	3.04E-05	2180	3.20E-03	3.04E-05	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.03E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000
U-234	1.70E-01	0.00E+00	>10000	2.07E-01	0.00E+00	>10000	9.01E-01	0.00E+00	>10000
U-235	3.56E-02	0.00E+00	>10000	4.34E-02	0.00E+00	>10000	8.86E-02	0.00E+00	>10000
U-236	4.03E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000
U-238	4.06E-01	0.00E+00	>10000	4.95E-01	0.00E+00	>10000	1.66E+00	0.00E+00	>10000
1996-2007 Cat 3 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	7.20E+01	1.86E-03	1840	7.20E+01	1.86E-03	1840	7.20E+01	1.86E-03	1840
I-129	3.39E-07	3.22E-09	2180	3.53E-07	3.35E-09	2180	3.53E-07	3.35E-09	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	9.79E-02	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	2.32E-01	0.00E+00	>10000
U-234	1.24E+02	0.00E+00	>10000	1.29E+02	0.00E+00	>10000	2.94E+02	0.00E+00	>10000
U-235	3.54E+00	0.00E+00	>10000	3.69E+00	0.00E+00	>10000	8.39E+00	0.00E+00	>10000
U-236	1.60E+01	0.00E+00	>10000	1.67E+01	0.00E+00	>10000	3.80E+01	0.00E+00	>10000
U-238	1.99E+02	0.00E+00	>10000	2.07E+02	0.00E+00	>10000	4.72E+02	0.00E+00	>10000

Table G.16. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			1.60E+00	6.81E-07	10000
Tc-99	0.00E+00			0.00E+00			1.43E+00	1.86E-02	1450
Grouted Tc-99	0.00E+00			0.00E+00			1.23E+02	1.01E-02	870
I-129	0.00E+00			0.00E+00			1.68E-02	2.18E-04	1450
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			2.22E-03	1.05E-08	10000
U-234	0.00E+00			0.00E+00			2.25E+02	1.06E-03	10000
U-235	0.00E+00			0.00E+00			9.96E+00	4.71E-05	10000
U-236	0.00E+00			0.00E+00			4.86E-02	2.30E-07	10000
U-238	0.00E+00			0.00E+00			2.33E+02	1.10E-03	10000
200 West Area									
C-14	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	3.43E+00	3.26E-02	2180	3.44E+00	3.27E-02	2180	2.09E+00	1.99E-02	2180
Grouted Tc-99	4.91E+00	1.27E-04	1840	4.92E+00	1.27E-04	1840	5.96E+01	1.54E-03	1840
I-129	3.50E-02	3.33E-04	2180	3.51E-02	3.34E-04	2180	1.70E-02	1.62E-04	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	1.28E+01	0.00E+00	>10000	1.56E+01	0.00E+00	>10000	1.59E+01	0.00E+00	>10000
Tc-99	1.08E+00	1.01E-02	2340	1.32E+00	1.23E-02	2340	1.33E+00	1.24E-02	2340
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00	0.00E+00	
I-129	3.01E-03	2.80E-05	2340	3.67E-03	3.41E-05	2340	3.67E-03	3.41E-05	2340
Grouted I-129	0.00E+00			0.00E+00	0.00E+00		0.00E+00	0.00E+00	
U-233	3.71E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000
U-234	6.13E-01	0.00E+00	>10000	7.47E-01	0.00E+00	>10000	9.21E-01	0.00E+00	>10000
U-235	1.29E-01	0.00E+00	>10000	1.57E-01	0.00E+00	>10000	1.68E-01	0.00E+00	>10000
U-236	1.46E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000
U-238	1.47E+00	0.00E+00	>10000	1.79E+00	0.00E+00	>10000	2.08E+00	0.00E+00	>10000

Table G.16. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	4.44E-01	0.00E+00	>10000	4.62E-01	0.00E+00	>10000	1.45E+02	0.00E+00	>10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.23E+03	2.69E-01	1840	3.23E+03	2.69E-01	1840	3.23E+03	2.69E-01	1840
I-129	1.96E-06	1.82E-08	2340	2.04E-06	1.89E-08	2340	2.04E-06	1.89E-08	2340
Grouted I-129	5.00E+00	1.32E-04	1840	5.00E+00	1.32E-04	1840	5.00E+00	1.32E-04	1840
U-233	2.98E-01	0.00E+00	>10000	3.10E-01	0.00E+00	>10000	1.80E-01	0.00E+00	>10000
U-234	3.73E+02	0.00E+00	>10000	3.89E+02	0.00E+00	>10000	3.11E+02	0.00E+00	>10000
U-235	1.07E+01	0.00E+00	>10000	1.11E+01	0.00E+00	>10000	1.20E+01	0.00E+00	>10000
U-236	4.82E+01	0.00E+00	>10000	5.02E+01	0.00E+00	>10000	2.89E+01	0.00E+00	>10000
U-238	5.99E+02	0.00E+00	>10000	6.24E+02	0.00E+00	>10000	5.04E+02	0.00E+00	>10000
Projected Mixed LLW After 2008									
200 East Area									
C-14	4.32E+00	3.71E-07	10000	4.33E+00	3.72E-07	10000	5.70E+00	4.90E-07	10000
Tc-99	8.34E+00	9.43E-02	1630	8.36E+00	9.45E-02	1630	8.27E+00	9.35E-02	1630
Grouted Tc-99	1.57E+02	1.28E-02	870	1.57E+02	1.29E-02	870	3.34E+02	2.74E-02	870
I-129	1.04E-01	1.17E-03	1630	1.04E-01	1.18E-03	1630	1.05E-01	1.19E-03	1630
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.36E-02	2.19E-12	10000	1.36E-02	2.19E-12	10000	1.38E-02	2.22E-12	10000
U-234	1.61E+01	2.60E-09	10000	1.61E+01	2.60E-09	10000	3.40E+02	5.49E-08	10000
U-235	2.56E-01	4.14E-11	10000	2.57E-01	4.15E-11	10000	1.46E+01	2.36E-09	10000
U-236	3.01E-01	4.86E-11	10000	3.02E-01	4.87E-11	10000	3.05E-01	4.93E-11	10000
U-238	4.00E+00	6.46E-10	10000	4.01E+00	6.47E-10	10000	3.44E+02	5.55E-08	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.16. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.89E+01	3.19E-03	870	3.89E+01	3.19E-03	870	3.89E+01	3.19E-03	870
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	8.49E-01	2.69E-10	10000	8.49E-01	2.69E-10	10000	8.49E-01	2.69E-10	10000
U-234	4.60E-01	1.46E-10	10000	4.60E-01	1.46E-10	10000	4.60E-01	1.46E-10	10000
U-235	1.90E-02	6.01E-12	10000	1.90E-02	6.01E-12	10000	1.90E-02	6.01E-12	10000
U-236	1.70E-02	5.38E-12	10000	1.70E-02	5.38E-12	10000	1.70E-02	5.38E-12	10000
U-238	4.10E-01	1.30E-10	10000	4.10E-01	1.30E-10	10000	4.10E-01	1.30E-10	10000
200 West Area									
C-14	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
Tc-99	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
I-129	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
Grouted I-129	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
U-233	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
U-234	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
U-235	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
U-236	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
U-238	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		

Table G.17. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a 1-km Line of Analysis, Alternative Group D_1

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 C at 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area		0.00E+00								
C-14	2000	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.00E-01	3.00E+00	1700	3.66E-01	3.66E+00	1700	3.99E-01	3.99E+00	1700
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.62E-03	2.63E-02	1700	3.20E-03	3.20E-02	1700	3.20E-03	3.20E-02	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.03E-01	8.61E-04	10000	1.25E-01	9.44E-04	10000	1.25E-01	5.31E-04	10000
U-234	(a)	1.70E-01	1.43E-03	10000	2.07E-01	1.56E-03	10000	9.01E-01	3.83E-03	10000
U-235	(a)	3.56E-02	2.99E-04	10000	4.34E-02	3.28E-04	10000	8.86E-02	3.76E-04	10000
U-236	(a)	4.03E-03	3.39E-05	10000	4.92E-03	3.71E-05	10000	4.92E-03	2.09E-05	10000
U-238	(a)	4.06E-01	3.41E-03	10000	4.95E-01	3.74E-03	10000	1.66E+00	7.05E-03	10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	6.64E+00	1230	7.20E+01	6.64E+00	1230	7.20E+01	6.64E+00	1230
I-129	1	3.39E-07	3.39E-06	1700	3.53E-07	3.53E-06	1700	3.53E-07	3.53E-06	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	9.79E-02	3.61E-08	10000	1.02E-01	3.61E-08	10000	2.32E-01	0.00E+00	>10000
U-234	(a)	1.24E+02	4.56E-05	10000	1.29E+02	4.56E-05	10000	2.94E+02	0.00E+00	>10000
U-235	(a)	3.54E+00	1.30E-06	10000	3.69E+00	1.30E-06	10000	8.39E+00	0.00E+00	>10000
U-236	(a)	1.60E+01	5.90E-06	10000	1.67E+01	5.90E-06	10000	3.80E+01	0.00E+00	>10000
U-238	(a)	1.99E+02	7.32E-05	10000	2.07E+02	7.32E-05	10000	0.00E+00	0.00E+00	>10000

Table G.17. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.27E-02	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.18E+01	1230
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	8.66E+00	680
I-129	1	0.00E+00			0.00E+00			1.68E-02	1.39E-01	1230
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			2.22E-03	5.18E-05	10000
U-234	(a)	0.00E+00			0.00E+00			2.25E+02	5.24E+00	10000
U-235	(a)	0.00E+00			0.00E+00			9.96E+00	2.32E-01	10000
U-236	(a)	0.00E+00			0.00E+00			4.86E-02	1.13E-03	10000
U-238	(a)	0.00E+00			0.00E+00			2.33E+02	5.43E+00	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.44E+01	1700	3.44E+00	3.44E+01	1700	2.09E+00	2.09E+01	1700
Grouted Tc-99	900	4.91E+00	3.50E-01	1200	4.92E+00	3.51E-01	1200	5.96E+01	4.25E+00	1200
I-129	1	3.50E-02	3.51E-01	1700	3.51E-02	3.51E-01	1700	1.70E-02	1.70E-01	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	(a)	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	(a)	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	(a)	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	(a)	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	1.28E+01	2.01E-02	10000	1.56E+01	2.45E-02	10000	1.59E+01	2.50E-02	10000
Tc-99	900	1.08E+00	6.39E+00	1380	1.32E+00	7.80E+00	1380	1.33E+00	7.86E+00	1380
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	3.01E-03	1.78E-02	1380	3.67E-03	2.17E-02	1380	3.67E-03	2.17E-02	1380
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	3.71E-01	3.29E-03	10000	4.52E-01	3.88E-03	10000	4.52E-01	0.00E+00	>10000
U-234	(a)	6.13E-01	5.44E-03	10000	7.47E-01	6.41E-03	10000	9.21E-01	0.00E+00	>10000
U-235	(a)	1.29E-01	1.14E-03	10000	1.57E-01	1.35E-03	10000	1.68E-01	0.00E+00	>10000
U-236	(a)	1.46E-02	1.30E-04	10000	1.78E-02	1.53E-04	10000	1.78E-02	0.00E+00	>10000
U-238	(a)	1.47E+00	1.30E-02	10000	1.79E+00	1.54E-02	10000	2.08E+00	0.00E+00	>10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00	0.00E+00		0.00E+00		
U-234	(a)	0.00E+00			0.00E+00	0.00E+00		0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

Table G.17. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	4.44E-01	6.97E-04	10000	4.62E-01	7.26E-04	10000	1.45E+02	2.28E-01	10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.23E+03	4.81E-02	680	3.23E+03	1.55E+02	680	3.23E+03	4.81E-02	680
I-129	1	1.96E-06	1.16E-05	1380	2.04E-06	1.21E-05	1380	2.04E-06	1.21E-05	1380
Grouted I-129	1	5.00E+00	1.52E-02	680	5.00E+00	7.61E-02	680	5.00E+00	1.52E-02	680
U-233	(a)	1.36E-02	2.56E-08	10000	3.10E-01	2.97E-08	10000	1.80E-01	4.43E-08	10000
U-234	(a)	1.61E+01	3.21E-05	10000	3.89E+02	3.73E-05	10000	3.11E+02	7.65E-05	10000
U-235	(a)	2.56E-01	9.16E-07	10000	1.11E+01	1.06E-06	10000	1.20E+01	2.95E-06	10000
U-236	(a)	3.01E-01	4.14E-06	10000	5.02E+01	4.81E-06	10000	2.89E+01	7.11E-06	10000
U-238	(a)	4.00E+00	5.15E-05	10000	6.24E+02	5.98E-05	10000	5.04E+02	1.24E-04	10000
200 West Area										
C-14	2000	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00		0.00E+00		
Tc-99	900	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00		0.00E+00		
Grouted Tc-99	900	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00		0.00E+00		
I-129	1	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00		0.00E+00		
Grouted I-129	1	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00		0.00E+00		
U-233	(a)	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00		0.00E+00		
U-234	(a)	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00		0.00E+00		
U-235	(a)	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00		0.00E+00		
U-236	(a)	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00		0.00E+00		
U-238	(a)	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00		0.00E+00		
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	4.32E+00	6.79E-03	10000	4.33E+00	6.81E-03	10000	5.70E+00	8.96E-03	10000
Tc-99	900	8.34E+00	4.93E+01	1380	8.36E+00	4.94E+01	1380	8.27E+00	4.89E+01	1380
Grouted Tc-99	900	1.57E+02	4.81E-02	680	1.57E+02	4.81E-02	680	3.34E+02	4.81E-02	680
I-129	1	1.04E-01	6.13E-01	1380	1.04E-01	6.14E-01	1380	1.05E-01	6.21E-01	1380
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.36E-02	2.85E-08	10000	1.36E-02	2.86E-08	10000	1.38E-02	2.90E-08	10000
U-234	(a)	1.61E+01	3.39E-05	10000	1.61E+01	3.39E-05	10000	3.40E+02	7.15E-04	10000
U-235	(a)	2.56E-01	5.39E-07	10000	2.57E-01	5.41E-07	10000	1.46E+01	3.08E-05	10000
U-236	(a)	3.01E-01	6.34E-07	10000	3.02E-01	6.35E-07	10000	3.05E-01	6.42E-07	10000
U-238	(a)	4.00E+00	8.42E-06	10000	4.01E+00	8.43E-06	10000	3.44E+02	7.24E-04	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

Table G.17. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	1.87E+00	680	3.89E+01	1.87E+00	680	3.89E+01	1.87E+00	680
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	8.49E-01	1.79E-06	10000	8.49E-01	1.79E-06	10000	8.49E-01	1.79E-06	10000
U-234	(a)	4.60E-01	9.68E-07	10000	4.60E-01	9.68E-07	10000	4.60E-01	9.68E-07	10000
U-235	(a)	1.90E-02	4.00E-08	10000	1.90E-02	4.00E-08	10000	1.90E-02	4.00E-08	10000
U-236	(a)	1.70E-02	3.58E-08	10000	1.70E-02	3.58E-08	10000	1.70E-02	3.58E-08	10000
U-238	(a)	4.10E-01	8.62E-07	10000	4.10E-01	8.62E-07	10000	4.10E-01	8.62E-07	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.18. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a Line of Analysis Along the Columbia River, Alternative Group D_1

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concentra-tion (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concentra-tion (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concentra-tion (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.00E-01	2.63E-01	2000	3.66E-01	3.21E-01	2000	3.99E-01	3.50E-01	2000
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.62E-03	2.30E-03	2000	3.20E-03	2.81E-03	2000	3.20E-03	2.81E-03	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.03E-01	2.59E-07	10000	1.25E-01	2.64E-07	10000	1.25E-01	9.13E-08	10000
U-234	(a)	1.70E-01	4.29E-07	10000	2.07E-01	4.38E-07	10000	9.01E-01	6.58E-07	10000
U-235	(a)	3.56E-02	9.00E-08	10000	4.34E-02	9.18E-08	10000	8.86E-02	6.47E-08	10000
U-236	(a)	4.03E-03	1.02E-08	10000	4.92E-03	1.04E-08	10000	4.92E-03	3.59E-09	10000
U-238	(a)	4.06E-01	1.03E-06	10000	4.95E-01	1.05E-06	10000	1.66E+00	1.21E-06	10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710
I-129	1	3.39E-07	2.97E-07	2000	3.53E-07	3.09E-07	2000	3.53E-07	3.09E-07	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	9.79E-02	2.57E-12	10000	1.02E-01	2.57E-12	10000	2.32E-01	0.00E+00	>10000
U-234	(a)	1.24E+02	3.25E-09	10000	1.29E+02	3.25E-09	10000	2.94E+02	0.00E+00	>10000
U-235	(a)	3.54E+00	9.30E-11	10000	3.69E+00	9.30E-11	10000	8.39E+00	0.00E+00	>10000
U-236	(a)	1.60E+01	4.21E-10	10000	1.67E+01	4.21E-10	10000	3.80E+01	0.00E+00	>10000
U-238	(a)	1.99E+02	5.22E-09	10000	2.07E+02	5.22E-09	10000	4.72E+02	0.00E+00	>10000

Table G.18. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.52E-04	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.99E+00	1400
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	1.06E+00	940
I-129	1	0.00E+00			0.00E+00			1.68E-02	2.34E-02	1400
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			2.22E-03	1.61E-06	10000
U-234	(a)	0.00E+00			0.00E+00			2.25E+02	1.63E-01	10000
U-235	(a)	0.00E+00			0.00E+00			9.96E+00	7.21E-03	10000
U-236	(a)	0.00E+00			0.00E+00			4.86E-02	3.52E-05	10000
U-238	(a)	0.00E+00			0.00E+00			2.33E+02	1.69E-01	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.01E+00	2000	3.44E+00	3.02E+00	2000	2.09E+00	1.83E+00	2000
Grouted Tc-99	900	4.91E+00	3.36E-02	1620	4.92E+00	3.37E-02	1620	5.96E+01	4.08E-01	1620
I-129	1	3.50E-02	3.07E-02	2000	3.51E-02	3.08E-02	2000	1.70E-02	1.49E-02	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	(a)	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	(a)	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	(a)	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	(a)	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	1.28E+01	2.96E-04	10000	1.56E+01	3.61E-04	10000	1.59E+01	3.68E-04	10000
Tc-99	900	1.08E+00	7.36E-01	1510	1.32E+00	8.97E-01	1510	1.33E+00	9.04E-01	1510
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	3.01E-03	2.05E-03	1510	3.67E-03	2.50E-03	1510	3.67E-03	2.50E-03	1510
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	3.71E-01	4.40E-05	10000	4.52E-01	5.12E-05	10000	4.52E-01	8.41E-05	10000
U-234	(a)	6.13E-01	7.27E-05	10000	7.47E-01	8.47E-05	10000	9.21E-01	1.71E-04	10000
U-235	(a)	1.29E-01	1.53E-05	10000	1.57E-01	1.78E-05	10000	1.68E-01	3.13E-05	10000
U-236	(a)	1.46E-02	1.73E-06	10000	1.78E-02	2.02E-06	10000	1.78E-02	3.31E-06	10000
U-238	(a)	1.47E+00	1.74E-04	10000	1.79E+00	2.03E-04	10000	2.08E+00	3.87E-04	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

Table G.18. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	4.44E-01	1.03E-05	10000	4.62E-01	1.07E-05	10000	1.45E+02	3.35E-03	10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.23E+03	1.69E+01	820	3.23E+03	1.69E+01	820	3.23E+03	1.69E+01	820
I-129	1	1.96E-06	1.33E-06	1510	2.04E-06	1.39E-06	1510	2.04E-06	1.39E-06	1510
Grouted I-129	1	5.00E+00	8.26E-03	820	5.00E+00	8.26E-03	820	5.00E+00	8.26E-03	820
U-233	(a)	2.98E-01	3.17E-10	10000	3.10E-01	3.68E-10	10000	1.80E-01	5.49E-10	10000
U-234	(a)	3.73E+02	3.98E-07	10000	3.89E+02	4.62E-07	10000	3.11E+02	9.49E-07	10000
U-235	(a)	1.07E+01	1.14E-08	10000	1.11E+01	1.32E-08	10000	1.20E+01	3.66E-08	10000
U-236	(a)	4.82E+01	5.13E-08	10000	5.02E+01	5.97E-08	10000	2.89E+01	8.82E-08	10000
U-238	(a)	5.99E+02	6.38E-07	10000	6.24E+02	7.42E-07	10000	5.04E+02	1.54E-06	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	4.32E+00	9.99E-05	10000	4.33E+00	1.00E-04	10000	5.70E+00	1.32E-04	10000
Tc-99	900	8.34E+00	5.67E+00	1510	8.36E+00	5.68E+00	1510	8.27E+00	5.62E+00	1510
Grouted Tc-99	900	1.57E+02	8.19E-01	820	1.57E+02	8.21E-01	820	3.34E+02	1.75E+00	820
I-129	1	1.04E-01	7.06E-02	1510	1.04E-01	7.07E-02	1510	1.05E-01	7.15E-02	1510
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.36E-02	3.54E-10	10000	1.36E-02	3.55E-10	10000	1.38E-02	3.59E-10	10000
U-234	(a)	1.61E+01	4.20E-07	10000	1.61E+01	4.21E-07	10000	3.40E+02	8.87E-06	10000
U-235	(a)	2.56E-01	6.69E-09	10000	2.57E-01	6.70E-09	10000	1.46E+01	3.82E-07	10000
U-236	(a)	3.01E-01	7.86E-09	10000	3.02E-01	7.88E-09	10000	3.05E-01	7.97E-09	10000
U-238	(a)	4.00E+00	1.04E-07	10000	4.01E+00	1.05E-07	10000	3.44E+02	8.97E-06	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

Table G.18. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	2.03E-01	820	3.89E+01	2.03E-01	820	3.89E+01	2.03E-01	820
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	8.49E-01	2.21E-08	10000	8.49E-01	2.21E-08	10000	8.49E-01	2.21E-08	10000
U-234	(a)	4.60E-01	1.20E-08	10000	4.60E-01	1.20E-08	10000	4.60E-01	1.20E-08	10000
U-235	(a)	1.90E-02	4.96E-10	10000	1.90E-02	4.96E-10	10000	1.90E-02	4.96E-10	10000
U-236	(a)	1.70E-02	4.43E-10	10000	1.70E-02	4.43E-10	10000	1.70E-02	4.43E-10	10000
U-238	(a)	4.10E-01	1.07E-08	10000	4.10E-01	1.07E-08	10000	4.10E-01	1.07E-08	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.19. Predicted Peak River Flux of Key Constituents by Waste and Category at a Line of Analysis to the Columbia River, Alternative Group D_1

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	3.00E-01	2.85E-03	2180	3.66E-01	3.48E-03	2180	3.99E-01	3.79E-03	2180
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	2.62E-03	2.49E-05	2180	3.20E-03	3.04E-05	2180	3.20E-03	3.04E-05	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.03E-01	2.00E-09	10000	1.25E-01	2.05E-09	10000	1.25E-01	7.25E-10	10000
U-234	1.70E-01	3.32E-09	10000	2.07E-01	3.40E-09	10000	9.01E-01	5.22E-09	10000
U-235	3.56E-02	6.96E-10	10000	4.34E-02	7.12E-10	10000	8.86E-02	5.14E-10	10000
U-236	4.03E-03	7.89E-11	10000	4.92E-03	8.07E-11	10000	4.92E-03	2.85E-11	10000
U-238	4.06E-01	7.93E-09	10000	4.95E-01	8.12E-09	10000	1.66E+00	9.62E-09	10000
1996-2007 Cat 3 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	7.20E+01	6.01E-03	1840	7.20E+01	6.01E-03	1840	7.20E+01	6.01E-03	1840
I-129	3.39E-07	3.22E-09	2180	3.53E-07	3.35E-09	2180	3.53E-07	3.35E-09	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	9.79E-02	2.03E-14	10000	1.02E-01	2.03E-14	10000	2.32E-01	2.03E-14	10000
U-234	1.24E+02	2.57E-11	10000	1.29E+02	2.57E-11	10000	2.94E+02	2.57E-11	10000
U-235	3.54E+00	7.36E-13	10000	3.69E+00	7.36E-13	10000	8.39E+00	7.34E-13	10000
U-236	1.60E+01	3.33E-12	10000	1.67E+01	3.33E-12	10000	3.80E+01	3.32E-12	10000
U-238	1.99E+02	4.13E-11	10000	2.07E+02	4.13E-11	10000	4.72E+02	4.13E-11	10000

Table G.19. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			1.60E+00	1.52E-02	2180
Tc-99	0.00E+00			0.00E+00			1.43E+00	1.86E-02	1450
Grouted Tc-99	0.00E+00			0.00E+00			1.23E+02	1.14E-02	970
I-129	0.00E+00			0.00E+00			1.68E-02	2.18E-04	1450
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			2.22E-03	1.05E-08	10000
U-234	0.00E+00			0.00E+00			2.25E+02	1.06E-03	10000
U-235	0.00E+00			0.00E+00			9.96E+00	4.71E-05	10000
U-236	0.00E+00			0.00E+00			4.86E-02	2.30E-07	10000
U-238	0.00E+00			0.00E+00			2.33E+02	1.10E-03	10000
200 West Area									
C-14	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	3.43E+00	3.26E-02	2180	3.44E+00	3.27E-02	2180	2.09E+00	1.99E-02	2180
Grouted Tc-99	4.91E+00	4.10E-04	1840	4.92E+00	4.10E-04	1840	5.96E+01	4.97E-03	1840
I-129	3.50E-02	3.33E-04	2180	3.51E-02	3.34E-04	2180	1.70E-02	1.62E-04	2180
Grouted I-129	0.00E+00	0.00E+00	1840	0.00E+00	0.00E+00	1840	0.00E+00	0.00E+00	1840
U-233	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008									
200 East Area									
C-14	1.28E+01	3.60E-06	10000	1.56E+01	4.39E-06	10000	1.59E+01	4.48E-06	10000
Tc-99	1.08E+00	1.15E-02	1530	1.32E+00	1.40E-02	1530	1.33E+00	1.41E-02	1530
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	3.01E-03	3.19E-05	1530	3.67E-03	3.89E-05	1530	3.67E-03	3.89E-05	1530
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	3.71E-01	5.34E-07	10000	4.52E-01	6.22E-07	10000	4.52E-01	1.03E-06	10000
U-234	6.13E-01	8.83E-07	10000	7.47E-01	1.03E-06	10000	9.21E-01	2.10E-06	10000
U-235	1.29E-01	1.86E-07	10000	1.57E-01	2.16E-07	10000	1.68E-01	3.84E-07	10000
U-236	1.46E-02	2.10E-08	10000	1.78E-02	2.45E-08	10000	1.78E-02	4.06E-08	10000
U-238	1.47E+00	2.12E-06	10000	1.79E+00	2.46E-06	10000	2.08E+00	4.75E-06	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.19. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008									
200 East Area									
C-14	4.44E-01	1.25E-07	10000	4.62E-01	1.30E-07	10000	1.45E+02	4.08E-05	10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.23E+03	2.65E-01	870	3.23E+03	2.69E-01	1840	3.23E+03	2.65E-01	870
I-129	1.96E-06	2.07E-08	1530	2.04E-06	2.16E-08	1530	2.04E-06	2.16E-08	1530
Grouted I-129	5.00E+00	1.30E-04	870	5.00E+00	1.32E-04	1840	5.00E+00	1.30E-04	870
U-233	2.98E-01	3.85E-12	10000	3.10E-01	4.47E-12	10000	1.80E-01	1.75E-12	10000
U-234	3.73E+02	4.83E-09	10000	3.89E+02	5.61E-09	10000	3.11E+02	3.02E-09	10000
U-235	1.07E+01	1.38E-10	10000	1.11E+01	1.60E-10	10000	1.20E+01	1.17E-10	10000
U-236	4.82E+01	6.23E-10	10000	5.02E+01	7.24E-10	10000	2.89E+01	2.81E-10	10000
U-238	5.99E+02	7.74E-09	10000	6.24E+02	9.00E-09	10000	5.04E+02	4.90E-09	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
Projected Mixed LLW After 2008									
200 East Area									
C-14	4.32E+00	1.22E-06	10000	4.33E+00	1.22E-06	10000	5.70E+00	1.61E-06	10000
Tc-99	8.34E+00	8.84E-02	1530	8.36E+00	8.85E-02	1530	8.27E+00	8.76E-02	1530
Grouted Tc-99	1.57E+02	1.28E-02	870	1.57E+02	1.29E-02	870	3.34E+02	2.74E-02	870
I-129	1.04E-01	1.10E-03	1530	1.04E-01	1.10E-03	1530	1.05E-01	1.11E-03	1530
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.36E-02	4.29E-12	10000	1.36E-02	4.30E-12	10000	1.38E-02	4.36E-12	10000
U-234	1.61E+01	5.10E-09	10000	1.61E+01	5.11E-09	10000	3.40E+02	1.08E-07	10000
U-235	2.56E-01	8.12E-11	10000	2.57E-01	8.13E-11	10000	1.46E+01	4.63E-09	10000
U-236	3.01E-01	9.54E-11	10000	3.02E-01	9.56E-11	10000	3.05E-01	9.66E-11	10000
U-238	4.00E+00	1.27E-09	10000	4.01E+00	1.27E-09	10000	3.44E+02	1.09E-07	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.19. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.89E+01	3.19E-03	870	3.89E+01	3.19E-03	870	3.89E+01	3.19E-03	870
I-129	0.00E+00		0	0.00E+00		0	0.00E+00		0
Grouted I-129	0.00E+00		0	0.00E+00		0	0.00E+00		0
U-233	8.49E-01	2.69E-10	10000	8.49E-01	2.69E-10	10000	8.49E-01	2.69E-10	10000
U-234	4.60E-01	1.46E-10	10000	4.60E-01	1.46E-10	10000	4.60E-01	1.46E-10	10000
U-235	1.90E-02	6.01E-12	10000	1.90E-02	6.01E-12	10000	1.90E-02	6.01E-12	10000
U-236	1.70E-02	5.38E-12	10000	1.70E-02	5.38E-12	10000	1.70E-02	5.38E-12	10000
U-238	4.10E-01	1.30E-10	10000	4.10E-01	1.30E-10	10000	4.10E-01	1.30E-10	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.20. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a 1-km Line of Analysis, Alternative Group D_2

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	**Maximum Concen-tration (pCi/L)**	**Approx. Peak Arrival Time (yrs)**	**Inventory (Ci)**	**Maximum Concen-tration (pCi/L)**	**Approx. Peak Arrival Time (yrs)**	**Inventory (Ci)**	**Maximum Concen-tration (pCi/L)**	**Approx. Peak Arrival Time (yrs)**
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.00E-01	3.00E+00	1700	3.66E-01	3.66E+00	1700	3.99E-01	3.99E+00	1700
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.62E-03	2.63E-02	1700	3.20E-03	3.20E-02	1700	3.20E-03	3.20E-02	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.03E-01	8.61E-04	10000	1.25E-01	9.44E-04	10000	1.25E-01	5.31E-04	10000
U-234	(a)	1.70E-01	1.43E-03	10000	2.07E-01	1.56E-03	10000	9.01E-01	3.83E-03	10000
U-235	(a)	3.56E-02	2.99E-04	10000	4.34E-02	3.28E-04	10000	8.86E-02	3.76E-04	10000
U-236	(a)	4.03E-03	3.39E-05	10000	4.92E-03	3.71E-05	10000	4.92E-03	2.09E-05	10000
U-238	(a)	4.06E-01	3.41E-03	10000	4.95E-01	3.74E-03	10000	1.66E+00	7.05E-03	10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	6.64E+00	1230	7.20E+01	6.64E+00	1230	7.20E+01	6.64E+00	1230
I-129	1	3.39E-07	3.39E-06	1700	3.53E-07	3.53E-06	1700	3.53E-07	3.53E-06	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	9.79E-02	3.61E-08	10000	1.02E-01	3.61E-08	10000	2.32E-01	3.60E-08	10000
U-234	(a)	1.24E+02	4.56E-05	10000	1.29E+02	4.56E-05	10000	2.94E+02	4.56E-05	10000
U-235	(a)	3.54E+00	1.30E-06	10000	3.69E+00	1.30E-06	10000	8.39E+00	1.30E-06	10000
U-236	(a)	1.60E+01	5.90E-06	10000	1.67E+01	5.90E-06	10000	3.80E+01	5.89E-06	10000
U-238	(a)	1.99E+02	7.32E-05	10000	2.07E+02	7.32E-05	10000	4.72E+02	7.32E-05	10000

Table G.20. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.27E-02	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.18E+01	1230
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	8.66E+00	680
I-129	1	0.00E+00			0.00E+00			1.68E-02	1.39E-01	1230
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			2.22E-03	5.18E-05	10000
U-234	(a)	0.00E+00			0.00E+00			2.25E+02	5.24E+00	10000
U-235	(a)	0.00E+00			0.00E+00			9.96E+00	2.32E-01	10000
U-236	(a)	0.00E+00			0.00E+00			4.86E-02	1.13E-03	10000
U-238	(a)	0.00E+00			0.00E+00			2.33E+02	5.43E+00	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.44E+01	1700	3.44E+00	3.44E+01	1700	2.09E+00	2.09E+01	1700
Grouted Tc-99	900	4.91E+00	3.50E-01	1200	4.92E+00	3.51E-01	1200	5.96E+01	4.25E+00	1200
I-129	1	3.50E-02	3.51E-01	1700	3.51E-02	3.51E-01	1700	1.70E-02	1.70E-01	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	(a)	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	(a)	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	(a)	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	(a)	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	1.28E+01	3.09E-02	10000	1.56E+01	3.76E-02	10000	1.59E+01	3.84E-02	10000
Tc-99	900	1.08E+00	5.17E+00	1320	1.32E+00	6.31E+00	1320	1.33E+00	6.36E+00	1320
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	3.01E-03	1.44E-02	1320	3.67E-03	1.75E-02	1320	3.67E-03	1.75E-02	1320
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	3.71E-01	5.20E-03	10000	4.52E-01	6.13E-03	10000	4.52E-01	8.62E-03	10000
U-234	(a)	6.13E-01	8.59E-03	10000	7.47E-01	1.01E-02	10000	9.21E-01	1.76E-02	10000
U-235	(a)	1.29E-01	1.81E-03	10000	1.57E-01	2.13E-03	10000	1.68E-01	3.20E-03	10000
U-236	(a)	1.46E-02	2.05E-04	10000	1.78E-02	2.42E-04	10000	1.78E-02	3.39E-04	10000
U-238	(a)	1.47E+00	2.06E-02	10000	1.79E+00	2.43E-02	10000	2.08E+00	3.97E-02	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

Table G.20. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	4.44E-01	1.07E-03	10000	4.62E-01	1.11E-03	10000	1.45E+02	3.50E-01	10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.23E+03	1.35E+02	630	3.23E+03	1.35E+02	630	3.23E+03	1.35E+02	630
I-129	1	1.96E-06	9.36E-06	1320	2.04E-06	9.75E-06	1320	2.04E-06	9.75E-06	1320
Grouted I-129	1	5.00E+00	6.63E-02	630	5.00E+00	6.63E-02	630	5.00E+00	6.63E-02	630
U-233	(a)	2.98E-01	4.08E-08	10000	3.10E-01	4.74E-08	10000	1.80E-01	7.07E-08	10000
U-234	(a)	3.73E+02	5.12E-05	10000	3.89E+02	5.95E-05	10000	3.11E+02	1.22E-04	10000
U-235	(a)	1.07E+01	1.46E-06	10000	1.11E+01	1.70E-06	10000	1.20E+01	4.71E-06	10000
U-236	(a)	4.82E+01	6.61E-06	10000	5.02E+01	7.68E-06	10000	2.89E+01	1.13E-05	10000
U-238	(a)	5.99E+02	8.21E-05	10000	6.24E+02	9.54E-05	10000	5.04E+02	1.98E-04	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	4.32E+00	1.01E-02	10000	4.33E+00	1.01E-02	10000	5.70E+00	1.34E-02	10000
Tc-99	900	8.34E+00	6.79E+01	1370	8.36E+00	6.80E+01	1370	8.27E+00	6.73E+01	1370
Grouted Tc-99	900	1.57E+02	1.10E+01	680	1.57E+02	1.11E+01	680	3.34E+02	2.35E+01	680
I-129	1	1.04E-01	8.44E-01	1370	1.04E-01	8.46E-01	1370	1.05E-01	8.56E-01	1370
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.36E-02	4.56E-08	10000	1.36E-02	4.57E-08	10000	1.38E-02	4.63E-08	10000
U-234	(a)	1.61E+01	5.41E-05	10000	1.61E+01	5.42E-05	10000	3.40E+02	1.14E-03	10000
U-235	(a)	2.56E-01	8.61E-07	10000	2.57E-01	8.63E-07	10000	1.46E+01	4.91E-05	10000
U-236	(a)	3.01E-01	1.01E-06	10000	3.02E-01	1.01E-06	10000	3.05E-01	1.03E-06	10000
U-238	(a)	4.00E+00	1.34E-05	10000	4.01E+00	1.35E-05	10000	3.44E+02	1.15E-03	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

Table G.20. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	2.74E+00	680	3.89E+01	2.74E+00	680	3.89E+01	2.74E+00	680
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	8.49E-01	2.51E-06	10000	8.49E-01	2.51E-06	10000	8.49E-01	2.51E-06	10000
U-234	(a)	4.60E-01	1.36E-06	10000	4.60E-01	1.36E-06	10000	4.60E-01	1.36E-06	10000
U-235	(a)	1.90E-02	5.61E-08	10000	1.90E-02	5.61E-08	10000	1.90E-02	5.61E-08	10000
U-236	(a)	1.70E-02	5.02E-08	10000	1.70E-02	5.02E-08	10000	1.70E-02	5.02E-08	10000
U-238	(a)	4.10E-01	1.21E-06	10000	4.10E-01	1.21E-06	10000	4.10E-01	1.21E-06	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.21. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a Line of Analysis Along the Columbia River, Alternative Group D_2

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.00E-01	2.63E-01	2000	3.66E-01	3.21E-01	2000	3.99E-01	3.50E-01	2000
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.62E-03	2.30E-03	2000	3.20E-03	2.81E-03	2000	3.20E-03	2.81E-03	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.03E-01	2.59E-07	10000	1.25E-01	2.64E-07	10000	1.25E-01	2.64E-07	10000
U-234	(a)	1.70E-01	4.29E-07	10000	2.07E-01	4.38E-07	10000	9.01E-01	1.91E-06	10000
U-235	(a)	3.56E-02	9.00E-08	10000	4.34E-02	9.18E-08	10000	8.86E-02	1.87E-07	10000
U-236	(a)	4.03E-03	1.02E-08	10000	4.92E-03	1.04E-08	10000	4.92E-03	1.04E-08	10000
U-238	(a)	4.06E-01	1.03E-06	10000	4.95E-01	1.05E-06	10000	1.66E+00	3.51E-06	10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710
I-129	1	3.39E-07	2.97E-07	2000	3.53E-07	3.09E-07	2000	3.53E-07	3.09E-07	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	9.79E-02	2.57E-12	10000	1.02E-01	2.57E-12	10000	2.32E-01	5.85E-12	10000
U-234	(a)	1.24E+02	3.25E-09	10000	1.29E+02	3.25E-09	10000	2.94E+02	7.41E-09	10000
U-235	(a)	3.54E+00	9.30E-11	10000	3.69E+00	9.30E-11	10000	8.39E+00	2.11E-10	10000
U-236	(a)	1.60E+01	4.21E-10	10000	1.67E+01	4.21E-10	10000	3.80E+01	9.58E-10	10000
U-238	(a)	1.99E+02	5.22E-09	10000	2.07E+02	5.22E-09	10000	4.72E+02	7.32E-05	10000

Table G.21. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.52E-04	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.99E+00	1400
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	1.06E+00	940
I-129	1	0.00E+00			0.00E+00			1.68E-02	2.34E-02	1400
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			2.22E-03	1.61E-06	10000
U-234	(a)	0.00E+00			0.00E+00			2.25E+02	1.63E-01	10000
U-235	(a)	0.00E+00			0.00E+00			9.96E+00	7.21E-03	10000
U-236	(a)	0.00E+00			0.00E+00			4.86E-02	3.52E-05	10000
U-238	(a)	0.00E+00			0.00E+00			2.33E+02	1.69E-01	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.01E+00	2000	3.44E+00	3.02E+00	2000	2.09E+00	1.83E+00	2000
Grouted Tc-99	900	4.91E+00	3.36E-02	1620	4.92E+00	3.37E-02	1620	5.96E+01	4.08E-01	1620
I-129	1	3.50E-02	3.07E-02	2000	3.51E-02	3.08E-02	2000	1.70E-02	1.49E-02	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	(a)	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	(a)	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	(a)	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	(a)	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	1.28E+01	6.49E-04	10000	1.56E+01	7.92E-04	10000	1.59E+01	8.07E-04	10000
Tc-99	900	1.08E+00	1.39E+00	1530	1.32E+00	1.70E+00	1530	1.33E+00	1.71E+00	1530
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	3.01E-03	3.87E-03	1530	3.67E-03	4.71E-03	1530	3.67E-03	4.71E-03	1530
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	3.71E-01	6.08E-05	10000	4.52E-01	7.08E-05	10000	4.52E-01	3.30E-07	10000
U-234	(a)	6.13E-01	1.00E-04	10000	7.47E-01	1.17E-04	10000	9.21E-01	6.73E-07	10000
U-235	(a)	1.29E-01	2.11E-05	10000	1.57E-01	2.46E-05	10000	1.68E-01	1.23E-07	10000
U-236	(a)	1.46E-02	2.39E-06	10000	1.78E-02	2.79E-06	10000	1.78E-02	1.30E-08	10000
U-238	(a)	1.47E+00	2.41E-04	10000	1.79E+00	2.80E-04	10000	2.08E+00	1.52E-06	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

Table G.21. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	4.44E-01	2.25E-05	10000	4.62E-01	2.34E-05	10000	1.45E+02	7.36E-03	10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.23E+03	3.18E+01	860	3.23E+03	3.18E+01	860	3.23E+03	3.18E+01	860
I-129	1	1.96E-06	2.52E-06	1530	2.04E-06	2.62E-06	1530	2.04E-06	2.62E-06	1530
Grouted I-129	1	5.00E+00	1.56E-02	860	5.00E+00	1.56E-02	860	5.00E+00	1.56E-02	860
U-233	(a)	2.98E-01	4.37E-10	10000	3.10E-01	5.08E-10	10000	1.80E-01	7.57E-10	10000
U-234	(a)	3.73E+02	5.48E-07	10000	3.89E+02	6.37E-07	10000	3.11E+02	1.31E-06	10000
U-235	(a)	1.07E+01	1.56E-08	10000	1.11E+01	1.82E-08	10000	1.20E+01	5.04E-08	10000
U-236	(a)	4.82E+01	7.08E-08	10000	5.02E+01	8.22E-08	10000	2.89E+01	1.21E-07	10000
U-238	(a)	5.99E+02	8.80E-07	10000	6.24E+02	1.02E-06	10000	5.04E+02	2.12E-06	10000
200 West Area										
C-14	2000	0.00E+00	0.00E+00	0	0.00E+00			0.00E+00	0.00E+00	0
Tc-99	900	0.00E+00	0.00E+00	0	0.00E+00			0.00E+00	0.00E+00	0
Grouted Tc-99	900	0.00E+00	0.00E+00	0	0.00E+00			0.00E+00	0.00E+00	0
I-129	1	0.00E+00	0.00E+00	0	0.00E+00			0.00E+00	0.00E+00	0
Grouted I-129	1	0.00E+00	0.00E+00	0	0.00E+00			0.00E+00	0.00E+00	0
U-233	(a)	0.00E+00	0.00E+00	0	0.00E+00			0.00E+00	0.00E+00	0
U-234	(a)	0.00E+00	0.00E+00	0	0.00E+00			0.00E+00	0.00E+00	0
U-235	(a)	0.00E+00	0.00E+00	0	0.00E+00			0.00E+00	0.00E+00	0
U-236	(a)	0.00E+00	0.00E+00	0	0.00E+00			0.00E+00	0.00E+00	0
U-238	(a)	0.00E+00	0.00E+00	0	0.00E+00			0.00E+00	0.00E+00	0
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	4.32E+00	6.36E-05	10000	4.33E+00	6.38E-05	10000	5.70E+00	8.39E-05	10000
Tc-99	900	8.34E+00	9.43E+00	1590	8.36E+00	9.44E+00	1590	8.27E+00	9.34E+00	1590
Grouted Tc-99	900	1.57E+02	1.35E+00	940	1.57E+02	1.36E+00	940	3.34E+02	2.89E+00	940
I-129	1	1.04E-01	1.17E-01	1590	1.04E-01	1.17E-01	1590	1.05E-01	1.19E-01	1590
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.36E-02	4.88E-10	10000	1.36E-02	4.89E-10	10000	1.38E-02	4.95E-10	10000
U-234	(a)	1.61E+01	5.79E-07	10000	1.61E+01	5.80E-07	10000	3.40E+02	1.22E-05	10000
U-235	(a)	2.56E-01	9.22E-09	10000	2.57E-01	9.24E-09	10000	1.46E+01	5.26E-07	10000
U-236	(a)	3.01E-01	1.08E-08	10000	3.02E-01	1.09E-08	10000	3.05E-01	1.10E-08	10000
U-238	(a)	4.00E+00	1.44E-07	10000	4.01E+00	1.44E-07	10000	3.44E+02	1.24E-05	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

Table G.21. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	3.37E-01	940	3.89E+01	3.37E-01	940	3.89E+01	3.37E-01	940
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	8.49E-01	1.33E-08	10000	8.49E-01	1.33E-08	10000	8.49E-01	1.33E-08	10000
U-234	(a)	4.60E-01	7.23E-09	10000	4.60E-01	7.23E-09	10000	4.60E-01	7.23E-09	10000
U-235	(a)	1.90E-02	2.99E-10	10000	1.90E-02	2.99E-10	10000	1.90E-02	2.99E-10	10000
U-236	(a)	1.70E-02	2.67E-10	10000	1.70E-02	2.67E-10	10000	1.70E-02	2.67E-10	10000
U-238	(a)	4.10E-01	6.44E-09	10000	4.10E-01	6.44E-09	10000	4.10E-01	6.44E-09	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.22. Predicted Peak River Flux of Key Constituents by Waste and Category at a Line of Analysis to the Columbia River – Alternative Group D_2

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	3.00E-01	2.85E-03	2180	3.66E-01	3.48E-03	2180	3.99E-01	3.79E-03	2180
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	2.62E-03	2.49E-05	2180	3.20E-03	3.04E-05	2180	3.20E-03	3.04E-05	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.03E-01	2.00E-09	10000	1.25E-01	2.05E-09	10000	1.25E-01	7.25E-10	10000
U-234	1.70E-01	3.32E-09	10000	2.07E-01	3.40E-09	10000	9.01E-01	5.22E-09	10000
U-235	3.56E-02	6.96E-10	10000	4.34E-02	7.12E-10	10000	8.86E-02	5.14E-10	10000
U-236	4.03E-03	7.89E-11	10000	4.92E-03	8.07E-11	10000	4.92E-03	2.85E-11	10000
U-238	4.06E-01	7.93E-09	10000	4.95E-01	8.12E-09	10000	1.66E+00	9.62E-09	10000
1996-2007 Cat 3 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	7.20E+01	6.01E-03	1840	7.20E+01	6.01E-03	1840	7.20E+01	6.01E-03	1840
I-129	3.39E-07	3.22E-09	2180	3.53E-07	3.35E-09	2180	3.53E-07	3.35E-09	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	9.79E-02	2.03E-14	10000	1.02E-01	2.03E-14	10000	2.32E-01	2.03E-14	10000
U-234	1.24E+02	2.57E-11	10000	1.29E+02	2.57E-11	10000	2.94E+02	2.57E-11	10000
U-235	3.54E+00	7.36E-13	10000	3.69E+00	7.36E-13	10000	8.39E+00	7.34E-13	10000
U-236	1.60E+01	3.33E-12	10000	1.67E+01	3.33E-12	10000	3.80E+01	3.32E-12	10000
U-238	1.99E+02	4.13E-11	10000	2.07E+02	4.13E-11	10000	4.72E+02	4.13E-11	10000

Table G.22. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			1.60E+00	6.81E-07	10000
Tc-99	0.00E+00			0.00E+00			1.43E+00	1.86E-02	1450
Grouted Tc-99	0.00E+00			0.00E+00			1.23E+02	1.01E-02	870
I-129	0.00E+00			0.00E+00			1.68E-02	2.18E-04	1450
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			2.22E-03	1.05E-08	10000
U-234	0.00E+00			0.00E+00			2.25E+02	1.06E-03	10000
U-235	0.00E+00			0.00E+00			9.96E+00	4.71E-05	10000
U-236	0.00E+00			0.00E+00			4.86E-02	2.30E-07	10000
U-238	0.00E+00			0.00E+00			2.33E+02	1.10E-03	10000
200 West Area									
C-14	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	3.43E+00	3.26E-02	2180	3.44E+00	3.27E-02	2180	2.09E+00	1.99E-02	2180
Grouted Tc-99	4.91E+00	4.10E-04	1840	4.92E+00	4.10E-04	1840	5.96E+01	4.97E-03	1840
I-129	3.50E-02	3.33E-04	2180	3.51E-02	3.34E-04	2180	1.70E-02	1.62E-04	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008									
200 East Area									
C-14	1.28E+01	1.86E-06	10000	1.56E+01	2.27E-06	10000	1.59E+01	2.31E-06	10000
Tc-99	1.08E+00	1.27E-02	1600	1.32E+00	1.55E-02	1600	1.33E+00	1.56E-02	1600
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	3.01E-03	3.53E-05	1600	3.67E-03	4.30E-05	1600	3.67E-03	4.30E-05	1600
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	3.71E-01	2.74E-07	10000	4.52E-01	3.18E-07	10000	4.52E-01	5.46E-07	10000
U-234	6.13E-01	4.53E-07	10000	7.47E-01	5.26E-07	10000	9.21E-01	1.11E-06	10000
U-235	1.29E-01	9.51E-08	10000	1.57E-01	1.11E-07	10000	1.68E-01	2.03E-07	10000
U-236	1.46E-02	1.08E-08	10000	1.78E-02	1.25E-08	10000	1.78E-02	2.15E-08	10000
U-238	1.47E+00	1.08E-06	10000	1.79E+00	1.26E-06	10000	2.08E+00	2.51E-06	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
Tc-99	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00	0.00E+00	
I-129	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
Grouted I-129	0.00E+00			0.00E+00			0.00E+00	0.00E+00	
U-233	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
U-234	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
U-235	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
U-236	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
U-238	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0

Table G.22. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008									
200 East Area									
C-14	4.44E-01	6.44E-08	10000	4.62E-01	6.71E-08	10000	1.45E+02	2.11E-05	10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.23E+03	2.99E-01	970	3.23E+03	2.99E-01	970	3.23E+03	2.99E-01	970
I-129	1.96E-06	2.29E-08	1600	2.04E-06	2.39E-08	1600	2.04E-06	2.39E-08	1600
Grouted I-129	5.00E+00	1.46E-04	970	5.00E+00	1.46E-04	970	5.00E+00	1.46E-04	970
U-233	2.98E-01	1.96E-12	10000	3.10E-01	2.28E-12	10000	1.80E-01	3.40E-12	10000
U-234	3.73E+02	2.46E-09	10000	3.89E+02	2.86E-09	10000	3.11E+02	5.87E-09	10000
U-235	1.07E+01	7.02E-11	10000	1.11E+01	8.16E-11	10000	1.20E+01	2.26E-10	10000
U-236	4.82E+01	3.18E-10	10000	5.02E+01	3.69E-10	10000	2.89E+01	5.45E-10	10000
U-238	5.99E+02	3.95E-09	10000	6.24E+02	4.59E-09	10000	5.04E+02	9.51E-09	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
Tc-99	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
I-129	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
Grouted I-129	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
U-233	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
U-234	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
U-235	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
U-236	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
U-238	0.00E+00			0.00E+00			0.00E+00	0.00E+00	0
Projected Mixed LLW After 2008									
200 East Area									
C-14	4.32E+00	3.71E-07	10000	4.33E+00	3.72E-07	10000	5.70E+00	4.90E-07	10000
Tc-99	8.34E+00	9.43E-02	1630	8.36E+00	9.45E-02	1630	8.27E+00	9.35E-02	1630
Grouted Tc-99	1.57E+02	1.45E-02	970	1.57E+02	1.45E-02	970	3.34E+02	3.09E-02	970
I-129	1.04E-01	1.17E-03	1630	1.04E-01	1.18E-03	1630	1.05E-01	1.19E-03	1630
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.36E-02	2.19E-12	10000	1.36E-02	2.19E-12	10000	1.38E-02	2.22E-12	10000
U-234	1.61E+01	2.60E-09	10000	1.61E+01	2.60E-09	10000	3.40E+02	5.49E-08	10000
U-235	2.56E-01	4.14E-11	10000	2.57E-01	4.15E-11	10000	1.46E+01	2.36E-09	10000
U-236	3.01E-01	4.86E-11	10000	3.02E-01	4.87E-11	10000	3.05E-01	4.93E-11	10000
U-238	4.00E+00	6.46E-10	10000	4.01E+00	6.47E-10	10000	3.44E+02	5.55E-08	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.22. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.89E+01	3.60E-03	970	3.89E+01	3.60E-03	970	3.89E+01	3.60E-03	970
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	8.49E-01	7.84E-11	10000	8.49E-01	7.84E-11	10000	8.49E-01	7.84E-11	10000
U-234	4.60E-01	4.25E-11	10000	4.60E-01	4.25E-11	10000	4.60E-01	4.25E-11	10000
U-235	1.90E-02	1.75E-12	10000	1.90E-02	1.75E-12	10000	1.90E-02	1.75E-12	10000
U-236	1.70E-02	1.57E-12	10000	1.70E-02	1.57E-12	10000	1.70E-02	1.57E-12	10000
U-238	4.10E-01	3.79E-11	10000	4.10E-01	3.79E-11	10000	4.10E-01	3.79E-11	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.23. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a 1-km Line of Analysis, Alternative Group D_3

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area		0.00E+00						0.00E+00	0.00E+00	0
C-14	2000	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.00E-01	3.00E+00	1700	3.66E-01	3.66E+00	1700	3.99E-01	3.99E+00	1700
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.62E-03	2.63E-02	1700	3.20E-03	3.20E-02	1700	3.20E-03	3.20E-02	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.03E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000
U-234	(a)	1.70E-01	0.00E+00	>10000	2.07E-01	0.00E+00	>10000	9.01E-01	0.00E+00	>10000
U-235	(a)	3.56E-02	0.00E+00	>10000	4.34E-02	0.00E+00	>10000	8.86E-02	0.00E+00	>10000
U-236	(a)	4.03E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000
U-238	(a)	4.06E-01	0.00E+00	>10000	4.95E-01	0.00E+00	>10000	1.66E+00	0.00E+00	>10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	6.64E+00	1230	7.20E+01	6.64E+00	1230	7.20E+01	6.64E+00	1230
I-129	1	3.39E-07	3.39E-06	1700	3.53E-07	3.53E-06	1700	3.53E-07	3.53E-06	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	9.79E-02	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	2.32E-01	0.00E+00	>10000
U-234	(a)	1.24E+02	0.00E+00	>10000	1.29E+02	0.00E+00	>10000	2.94E+02	0.00E+00	>10000
U-235	(a)	3.54E+00	0.00E+00	>10000	3.69E+00	0.00E+00	>10000	8.39E+00	0.00E+00	>10000
U-236	(a)	1.60E+01	0.00E+00	>10000	1.67E+01	0.00E+00	>10000	3.80E+01	0.00E+00	>10000
U-238	(a)	1.99E+02	0.00E+00	>10000	2.07E+02	0.00E+00	>10000	4.72E+02	0.00E+00	>10000

Table G.23. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.27E-02	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.18E+01	1230
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	8.66E+00	680
I-129	1	0.00E+00			0.00E+00			1.68E-02	1.39E-01	1230
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			2.22E-03	5.18E-05	10000
U-234	(a)	0.00E+00			0.00E+00			2.25E+02	5.24E+00	10000
U-235	(a)	0.00E+00			0.00E+00			9.96E+00	2.32E-01	10000
U-236	(a)	0.00E+00			0.00E+00			4.86E-02	1.13E-03	10000
U-238	(a)	0.00E+00			0.00E+00			2.33E+02	5.43E+00	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.44E+01	1700	3.44E+00	3.44E+01	1700	2.09E+00	2.09E+01	1700
Grouted Tc-99	900	4.91E+00	3.50E-01	1200	4.92E+00	3.51E-01	1200	5.96E+01	4.25E+00	1200
I-129	1	3.50E-02	3.51E-01	1700	3.51E-02	3.51E-01	1700	1.70E-02	1.70E-01	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	(a)	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	(a)	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	(a)	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	(a)	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.28E+01	0.00E+00	>10000	1.56E+01	0.00E+00	>10000	1.59E+01	0.00E+00	>10000
Tc-99	900	1.08E+00	9.31E+00	1740	1.32E+00	1.14E+01	1740	1.33E+00	1.14E+01	1740
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	3.01E-03	2.59E-02	1740	3.67E-03	3.16E-02	1740	3.67E-03	3.16E-02	1740
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	3.71E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000
U-234	(a)	6.13E-01	0.00E+00	>10000	7.47E-01	0.00E+00	>10000	9.21E-01	0.00E+00	>10000
U-235	(a)	1.29E-01	0.00E+00	>10000	1.57E-01	0.00E+00	>10000	1.68E-01	0.00E+00	>10000
U-236	(a)	1.46E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000
U-238	(a)	1.47E+00	0.00E+00	>10000	1.79E+00	0.00E+00	>10000	2.08E+00	0.00E+00	>10000

Table G.23. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area		0.00E+00								
C-14	2000	4.44E-01	0.00E+00	>10000	4.62E-01	0.00E+00	>10000	1.45E+02	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.23E+03	2.25E+02	1070	3.23E+03	2.25E+02	1070	3.23E+03	2.25E+02	1070
I-129	1	1.96E-06	1.69E-05	1740	2.04E-06	1.76E-05	1740	2.04E-06	1.76E-05	1740
Grouted I-129	1	5.00E+00	1.10E-01	1070	5.00E+00	1.10E-01	1070	5.00E+00	1.10E-01	1070
U-233	(a)	2.98E-01	0.00E+00	>10000	3.10E-01	0.00E+00	>10000	1.80E-01	0.00E+00	>10000
U-234	(a)	3.73E+02	0.00E+00	>10000	3.89E+02	0.00E+00	>10000	3.11E+02	0.00E+00	>10000
U-235	(a)	1.07E+01	0.00E+00	>10000	1.11E+01	0.00E+00	>10000	1.20E+01	0.00E+00	>10000
U-236	(a)	4.82E+01	0.00E+00	>10000	5.02E+01	0.00E+00	>10000	2.89E+01	0.00E+00	>10000
U-238	(a)	5.99E+02	0.00E+00	>10000	6.24E+02	0.00E+00	>10000	5.04E+02	0.00E+00	>10000
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	4.32E+00	0.00E+00	>10000	4.33E+00	0.00E+00	>10000	5.70E+00	0.00E+00	>10000
Tc-99	900	8.34E+00	7.18E+01	1740	8.36E+00	7.19E+01	1740	8.27E+00	7.12E+01	1740
Grouted Tc-99	900	1.57E+02	1.09E+01	1070	1.57E+02	1.09E+01	1070	3.34E+02	2.33E+01	1070
I-129	1	1.04E-01	8.93E-01	1740	1.04E-01	8.95E-01	1740	1.05E-01	9.05E-01	1740
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.36E-02	0.00E+00	>10000	1.36E-02	0.00E+00	>10000	1.38E-02	4.63E-08	10000
U-234	(a)	1.61E+01	0.00E+00	>10000	1.61E+01	0.00E+00	>10000	3.40E+02	1.14E-03	10000
U-235	(a)	2.56E-01	0.00E+00	>10000	2.57E-01	0.00E+00	>10000	1.46E+01	4.91E-05	10000
U-236	(a)	3.01E-01	0.00E+00	>10000	3.02E-01	0.00E+00	>10000	3.05E-01	1.03E-06	10000
U-238	(a)	4.00E+00	0.00E+00	>10000	4.01E+00	0.00E+00	>10000	3.44E+02	1.15E-03	10000

Table G.23. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	2.71E+00	1070	3.89E+01	2.71E+00	1070	3.89E+01	2.71E+00	1070
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	8.49E-01	0.00E+00	>10000	8.49E-01	0.00E+00	>10000	8.49E-01	0.00E+00	>10000
U-234	(a)	4.60E-01	0.00E+00	>10000	4.60E-01	0.00E+00	>10000	4.60E-01	0.00E+00	>10000
U-235	(a)	1.90E-02	0.00E+00	>10000	1.90E-02	0.00E+00	>10000	1.90E-02	0.00E+00	>10000
U-236	(a)	1.70E-02	0.00E+00	>10000	1.70E-02	0.00E+00	>10000	1.70E-02	0.00E+00	>10000
U-238	(a)	4.10E-01	0.00E+00	>10000	4.10E-01	0.00E+00	>10000	4.10E-01	0.00E+00	>10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.24. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a Line of Analysis Along the Columbia River, Alternative Group D_3

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.00E-01	2.63E-01	2000	3.66E-01	3.21E-01	2000	3.99E-01	3.50E-01	2000
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.62E-03	2.30E-03	2000	3.20E-03	2.81E-03	2000	3.20E-03	2.81E-03	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.03E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000
U-234	(a)	1.70E-01	0.00E+00	>10000	2.07E-01	0.00E+00	>10000	9.01E-01	0.00E+00	>10000
U-235	(a)	3.56E-02	0.00E+00	>10000	4.34E-02	0.00E+00	>10000	8.86E-02	0.00E+00	>10000
U-236	(a)	4.03E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000
U-238	(a)	4.06E-01	0.00E+00	>10000	4.95E-01	0.00E+00	>10000	1.66E+00	0.00E+00	>10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710
I-129	1	3.39E-07	2.97E-07	2000	3.53E-07	3.09E-07	2000	3.53E-07	3.09E-07	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	9.79E-02	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	2.32E-01	0.00E+00	>10000
U-234	(a)	1.24E+02	0.00E+00	>10000	1.29E+02	0.00E+00	>10000	2.94E+02	0.00E+00	>10000
U-235	(a)	3.54E+00	0.00E+00	>10000	3.69E+00	0.00E+00	>10000	8.39E+00	0.00E+00	>10000
U-236	(a)	1.60E+01	0.00E+00	>10000	1.67E+01	0.00E+00	>10000	3.80E+01	0.00E+00	>10000
U-238	(a)	1.99E+02	0.00E+00	>10000	2.07E+02	0.00E+00	>10000	4.72E+02	0.00E+00	>10000

Table G.24. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.52E-04	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.99E+00	1400
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	1.06E+00	940
I-129	1	0.00E+00			0.00E+00			1.68E-02	2.34E-02	1400
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			2.22E-03	1.61E-06	10000
U-234	(a)	0.00E+00			0.00E+00			2.25E+02	1.63E-01	10000
U-235	(a)	0.00E+00			0.00E+00			9.96E+00	7.21E-03	10000
U-236	(a)	0.00E+00			0.00E+00			4.86E-02	3.52E-05	10000
U-238	(a)	0.00E+00			0.00E+00			2.33E+02	1.69E-01	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.01E+00	2000	3.44E+00	3.02E+00	2000	2.09E+00	1.83E+00	2000
Grouted Tc-99	900	4.91E+00	3.36E-02	1620	4.92E+00	3.37E-02	1620	5.96E+01	4.08E-01	1620
I-129	1	3.50E-02	3.07E-02	2000	3.51E-02	3.08E-02	2000	1.70E-02	1.49E-02	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	(a)	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	(a)	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	(a)	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	(a)	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.28E+01	0.00E+00	>10000	1.56E+01	0.00E+00	>10000	1.59E+01	0.00E+00	>10000
Tc-99	900	1.08E+00	8.26E-01	2010	1.32E+00	1.01E+00	2010	1.33E+00	1.01E+00	2010
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	3.01E-03	2.30E-03	2010	3.67E-03	2.80E-03	2010	3.67E-03	2.80E-03	2010
Grouted I-129	1	0.00E+00			0.00E+00	0.00E+00		0.00E+00	0.00E+00	
U-233	(a)	3.71E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000
U-234	(a)	6.13E-01	0.00E+00	>10000	7.47E-01	0.00E+00	>10000	9.21E-01	0.00E+00	>10000
U-235	(a)	1.29E-01	0.00E+00	>10000	1.57E-01	0.00E+00	>10000	1.68E-01	0.00E+00	>10000
U-236	(a)	1.46E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000
U-238	(a)	1.47E+00	0.00E+00	>10000	1.79E+00	0.00E+00	>10000	2.08E+00	0.00E+00	>10000

Table G.24. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	4.44E-01	0.00E+00	>10000	4.62E-01	0.00E+00	>10000	1.45E+02	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.23E+03	1.97E+01	1420	3.23E+03	1.97E+01	1420	3.23E+03	1.97E+01	1420
I-129	1	1.96E-06	1.49E-06	2010	2.04E-06	1.56E-06	2010	2.04E-06	1.56E-06	2010
Grouted I-129	1	5.00E+00	9.65E-03	1420	5.00E+00	9.65E-03	1420	5.00E+00	9.65E-03	1420
U-233	(a)	2.98E-01	0.00E+00	>10000	3.10E-01	0.00E+00	>10000	1.80E-01	0.00E+00	>10000
U-234	(a)	3.73E+02	0.00E+00	>10000	3.89E+02	0.00E+00	>10000	3.11E+02	0.00E+00	>10000
U-235	(a)	1.07E+01	0.00E+00	>10000	1.11E+01	0.00E+00	>10000	1.20E+01	0.00E+00	>10000
U-236	(a)	4.82E+01	0.00E+00	>10000	5.02E+01	0.00E+00	>10000	2.89E+01	0.00E+00	>10000
U-238	(a)	5.99E+02	0.00E+00	>10000	6.24E+02	0.00E+00	>10000	5.04E+02	0.00E+00	>10000
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	4.32E+00	0.00E+00	>10000	4.33E+00	0.00E+00	>10000	5.70E+00	0.00E+00	>10000
Tc-99	900	8.34E+00	6.36E+00	2010	8.36E+00	6.38E+00	2010	8.27E+00	6.31E+00	2010
Grouted Tc-99	900	1.57E+02	9.56E-01	1420	1.57E+02	9.58E-01	1420	3.34E+02	2.04E+00	1420
I-129	1	1.04E-01	7.92E-02	2010	1.04E-01	7.93E-02	2010	1.05E-01	8.02E-02	2010
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.36E-02	0.00E+00	>10000	1.36E-02	0.00E+00	>10000	1.38E-02	0.00E+00	>10000
U-234	(a)	1.61E+01	0.00E+00	>10000	1.61E+01	0.00E+00	>10000	3.40E+02	0.00E+00	>10000
U-235	(a)	2.56E-01	0.00E+00	>10000	2.57E-01	0.00E+00	>10000	1.46E+01	0.00E+00	>10000
U-236	(a)	3.01E-01	0.00E+00	>10000	3.02E-01	0.00E+00	>10000	3.05E-01	0.00E+00	>10000
U-238	(a)	4.00E+00	0.00E+00	>10000	4.01E+00	0.00E+00	>10000	3.44E+02	0.00E+00	>10000

Table G.24. (contd)

Constituent	Benchnmark Groundwater Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	2.38E-01	1420	3.89E+01	2.38E-01	1420	3.89E+01	3.23E-03	1510
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	8.49E-01	0.00E+00	>10000	8.49E-01	0.00E+00	>10000	8.49E-01	0.00E+00	>10000
U-234	(a)	4.60E-01	0.00E+00	>10000	4.60E-01	0.00E+00	>10000	4.60E-01	0.00E+00	>10000
U-235	(a)	1.90E-02	0.00E+00	>10000	1.90E-02	0.00E+00	>10000	1.90E-02	0.00E+00	>10000
U-236	(a)	1.70E-02	0.00E+00	>10000	1.70E-02	0.00E+00	>10000	1.70E-02	0.00E+00	>10000
U-238	(a)	4.10E-01	0.00E+00	>10000	4.10E-01	0.00E+00	>10000	4.10E-01	0.00E+00	>10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.25 Predicted Peak River Flux of Key Constituents by Waste and Category at a Line of Analysis to the Columbia River, Alternative Group D_3

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	3.00E-01	2.85E-03	2180	3.66E-01	3.48E-03	2180	3.99E-01	3.79E-03	2180
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	2.62E-03	2.49E-05	2180	3.20E-03	3.04E-05	2180	3.20E-03	3.04E-05	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.03E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000
U-234	1.70E-01	0.00E+00	>10000	2.07E-01	0.00E+00	>10000	9.01E-01	0.00E+00	>10000
U-235	3.56E-02	0.00E+00	>10000	4.34E-02	0.00E+00	>10000	8.86E-02	0.00E+00	>10000
U-236	4.03E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000
U-238	4.06E-01	0.00E+00	>10000	4.95E-01	0.00E+00	>10000	1.66E+00	0.00E+00	>10000
1996-2007 Cat 3 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	7.20E+01	6.01E-03	1840	7.20E+01	6.01E-03	1840	7.20E+01	6.01E-03	1840
I-129	3.39E-07	3.22E-09	2180	3.53E-07	3.35E-09	2180	3.53E-07	3.35E-09	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	9.79E-02	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	2.32E-01	0.00E+00	>10000
U-234	1.24E+02	0.00E+00	>10000	1.29E+02	0.00E+00	>10000	2.94E+02	0.00E+00	>10000
U-235	3.54E+00	0.00E+00	>10000	3.69E+00	0.00E+00	>10000	8.39E+00	0.00E+00	>10000
U-236	1.60E+01	0.00E+00	>10000	1.67E+01	0.00E+00	>10000	3.80E+01	0.00E+00	>10000
U-238	1.99E+02	0.00E+00	>10000	2.07E+02	0.00E+00	>10000	4.72E+02	0.00E+00	>10000

Table G.25. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			1.60E+00	6.81E-07	10000
Tc-99	0.00E+00			0.00E+00			1.43E+00	1.86E-02	1450
Grouted Tc-99	0.00E+00			0.00E+00			1.23E+02	1.01E-02	870
I-129	0.00E+00			0.00E+00			1.68E-02	2.18E-04	1450
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			2.22E-03	0.00E+00	>10000
U-234	0.00E+00			0.00E+00			2.25E+02	0.00E+00	>10000
U-235	0.00E+00			0.00E+00			9.96E+00	0.00E+00	>10000
U-236	0.00E+00			0.00E+00			4.86E-02	0.00E+00	>10000
U-238	0.00E+00			0.00E+00			2.33E+02	0.00E+00	>10000
200 West Area									
C-14	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	3.43E+00	3.26E-02	2180	3.44E+00	3.27E-02	2180	2.09E+00	1.99E-02	2180
Grouted Tc-99	4.91E+00	4.10E-04	1840	4.92E+00	4.10E-04	1840	5.96E+01	4.97E-03	1840
I-129	3.50E-02	3.33E-04	2180	3.51E-02	3.34E-04	2180	1.70E-02	1.62E-04	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	1.28E+01	0.00E+00	>10000	1.56E+01	0.00E+00	>10000	1.59E+01	0.00E+00	>10000
Tc-99	1.08E+00	1.08E-02	2070	1.32E+00	1.31E-02	2070	1.33E+00	1.32E-02	2070
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	3.01E-03	2.99E-05	2070	3.67E-03	3.65E-05	2070	3.67E-03	3.65E-05	2070
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	3.71E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000
U-234	6.13E-01	0.00E+00	>10000	7.47E-01	0.00E+00	>10000	9.21E-01	0.00E+00	>10000
U-235	1.29E-01	0.00E+00	>10000	1.57E-01	0.00E+00	>10000	1.68E-01	0.00E+00	>10000
U-236	1.46E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000
U-238	1.47E+00	0.00E+00	>10000	1.79E+00	0.00E+00	>10000	2.08E+00	0.00E+00	>10000

Table G.25. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00						0.00E+00		
200 West Area				4.62E-01	0.00E+00	>10000			
C-14	4.44E-01	0.00E+00	>10000	0.00E+00			1.45E+02	0.00E+00	>10000
Tc-99	0.00E+00			3.23E+03	2.67E-01	1510	0.00E+00		
Grouted Tc-99	3.23E+03	2.67E-01	1510	2.04E-06	2.03E-08	2070	3.23E+03	2.67E-01	1510
I-129	1.96E-06	1.95E-08	2070	5.00E+00	1.31E-04	1510	2.04E-06	2.03E-08	2070
Grouted I-129	5.00E+00	1.31E-04	1510	3.10E-01	0.00E+00	>10000	5.00E+00	1.31E-04	1510
U-233	2.98E-01	0.00E+00	>10000	3.89E+02	0.00E+00	>10000	1.80E-01	0.00E+00	>10000
U-234	3.73E+02	0.00E+00	>10000	1.11E+01	0.00E+00	>10000	3.11E+02	0.00E+00	>10000
U-235	1.07E+01	0.00E+00	>10000	5.02E+01	0.00E+00	>10000	1.20E+01	0.00E+00	>10000
U-236	4.82E+01	0.00E+00	>10000	6.24E+02	0.00E+00	>10000	2.89E+01	0.00E+00	>10000
U-238	5.99E+02	0.00E+00	>10000				5.04E+02	0.00E+00	>10000
Projected Mixed LLW After 2008									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	4.32E+00	0.00E+00	>10000	4.33E+00	0.00E+00	>10000	5.70E+00	0.00E+00	>10000
Tc-99	8.34E+00	8.29E-02	2070	8.36E+00	8.30E-02	2070	8.27E+00	8.21E-02	2070
Grouted Tc-99	1.57E+02	1.30E-02	1510	1.57E+02	1.30E-02	1510	3.34E+02	2.77E-02	1510
I-129	1.04E-01	1.03E-03	2070	1.04E-01	1.03E-03	2070	1.05E-01	1.04E-03	2070
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.36E-02	0.00E+00	>10000	1.36E-02	0.00E+00	>10000	1.38E-02	0.00E+00	>10000
U-234	1.61E+01	0.00E+00	>10000	1.61E+01	0.00E+00	>10000	3.40E+02	0.00E+00	>10000
U-235	2.56E-01	0.00E+00	>10000	2.57E-01	0.00E+00	>10000	1.46E+01	0.00E+00	>10000
U-236	3.01E-01	0.00E+00	>10000	3.02E-01	0.00E+00	>10000	3.05E-01	0.00E+00	>10000
U-238	4.00E+00	0.00E+00	>10000	4.01E+00	0.00E+00	>10000	3.44E+02	0.00E+00	>10000

Table G.25. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.89E+01	3.23E-03	1510	3.89E+01	3.23E-03	1510	3.89E+01	3.23E-03	1510
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	8.49E-01	0.00E+00	>10000	8.49E-01	0.00E+00	>10000	8.49E-01	0.00E+00	>10000
U-234	4.60E-01	0.00E+00	>10000	4.60E-01	0.00E+00	>10000	4.60E-01	0.00E+00	>10000
U-235	1.90E-02	0.00E+00	>10000	1.90E-02	0.00E+00	>10000	1.90E-02	0.00E+00	>10000
U-236	1.70E-02	0.00E+00	>10000	1.70E-02	0.00E+00	>10000	1.70E-02	0.00E+00	>10000
U-238	4.10E-01	0.00E+00	>10000	4.10E-01	0.00E+00	>10000	4.10E-01	0.00E+00	>10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.26. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a 1-km Line of Analysis, Alternative Group E_1

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		
200 West Area		0.00E+00						0.00E+00	0.00E+00	0
C-14	2000	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.00E-01	3.00E+00	1700	3.66E-01	3.66E+00	1700	3.99E-01	3.99E+00	1700
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.62E-03	2.63E-02	1700	3.20E-03	3.20E-02	1700	3.20E-03	3.20E-02	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	1.03E-01	8.61E-04	10000	1.25E-01	9.44E-04	10000	1.25E-01	4.65E-04	10000
U-234	30	1.70E-01	1.43E-03	10000	2.07E-01	1.56E-03	10000	9.01E-01	3.35E-03	10000
U-235	30	3.56E-02	2.99E-04	10000	4.34E-02	3.28E-04	10000	8.86E-02	3.30E-04	10000
U-236	30	4.03E-03	3.39E-05	10000	4.92E-03	3.71E-05	10000	4.92E-03	1.83E-05	10000
U-238	30	4.06E-01	3.41E-03	10000	4.95E-01	3.74E-03	10000	1.66E+00	6.18E-03	10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00						0.00E+00		
Grouted I-129	1	0.00E+00						0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	6.64E+00	1230	7.20E+01	6.64E+00	1230	7.20E+01	6.64E+00	1230
I-129	1	3.39E-07	3.39E-06	1700	3.53E-07	3.53E-06	1700	3.53E-07	3.53E-06	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	9.79E-02	3.61E-08	10000	1.02E-01	3.61E-08	10000	2.32E-01	3.60E-08	10000
U-234	30	1.24E+02	4.56E-05	10000	1.29E+02	4.56E-05	10000	2.94E+02	4.56E-05	10000
U-235	30	3.54E+00	1.30E-06	10000	3.69E+00	1.30E-06	10000	8.39E+00	1.30E-06	10000
U-236	30	1.60E+01	5.90E-06	10000	1.67E+01	5.90E-06	10000	3.80E+01	5.89E-06	10000
U-238	30	1.99E+02	7.32E-05	10000	2.07E+02	7.32E-05	10000	4.72E+02	7.32E-05	10000

Table G.26. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.27E-02	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.14E-02	10000
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	8.66E+00	680
I-129	1	0.00E+00			0.00E+00			1.68E-02	1.34E-04	10000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			2.22E-03	5.18E-05	10000
U-234	30	0.00E+00			0.00E+00			2.25E+02	5.24E+00	10000
U-235	30	0.00E+00			0.00E+00			9.96E+00	2.32E-01	10000
U-236	30	0.00E+00			0.00E+00			4.86E-02	1.13E-03	10000
U-238	30	0.00E+00			0.00E+00			2.33E+02	5.43E+00	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.44E+01	1700	3.44E+00	3.44E+01	1700	2.09E+00	2.09E+01	1700
Grouted Tc-99	900	4.91E+00	3.50E-01	1200	4.92E+00	3.51E-01	1200	5.96E+01	4.25E+00	1200
I-129	1	3.50E-02	3.51E-01	1700	3.51E-02	3.51E-01	1700	1.70E-02	1.70E-01	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	30	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	30	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	30	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	30	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	1.28E+01	3.09E-02	10000	1.56E+01	3.76E-02	10000	1.59E+01	3.84E-02	10000
Tc-99	900	1.08E+00	5.17E+00	1320	1.32E+00	6.31E+00	1320	1.33E+00	6.36E+00	1320
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	3.01E-03	1.44E-02	1320	3.67E-03	1.75E-02	1320	3.67E-03	1.75E-02	1320
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	3.71E-01	5.26E-03	10000	4.52E-01	6.22E-03	10000	4.52E-01	8.62E-03	10000
U-234	30	6.13E-01	8.69E-03	10000	7.47E-01	1.03E-02	10000	9.21E-01	1.76E-02	10000
U-235	30	1.29E-01	1.83E-03	10000	1.57E-01	2.16E-03	10000	1.68E-01	3.20E-03	10000
U-236	30	1.46E-02	2.07E-04	10000	1.78E-02	2.45E-04	10000	1.78E-02	3.39E-04	10000
U-238	30	1.47E+00	2.08E-02	10000	1.79E+00	2.46E-02	10000	2.08E+00	3.97E-02	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		

Table G.26. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	4.44E-01	1.07E-03	10000	4.62E-01	1.11E-03	10000	1.45E+02	3.50E-01	10000
Tc-99	900	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0
Grouted Tc-99	900	3.23E+03	1.35E+02	630	3.23E+03	1.35E+02	630	3.23E+03	1.35E+02	630
I-129	1	1.96E-06	9.36E-06	1320	2.04E-06	9.75E-06	1320	2.04E-06	9.75E-06	1320
Grouted I-129	1	5.00E+00	6.63E-02	630	5.00E+00	6.63E-02	630	5.00E+00	6.63E-02	630
U-233	30	2.98E-01	4.23E-08	10000	3.10E-01	4.91E-08	10000	1.80E-01	7.32E-08	10000
U-234	30	3.73E+02	5.31E-05	10000	3.89E+02	6.17E-05	10000	3.11E+02	1.27E-04	10000
U-235	30	1.07E+01	1.51E-06	10000	1.11E+01	1.76E-06	10000	1.20E+01	4.88E-06	10000
U-236	30	4.82E+01	6.85E-06	10000	5.02E+01	7.96E-06	10000	2.89E+01	1.18E-05	10000
U-238	30	5.99E+02	8.51E-05	10000	6.24E+02	9.89E-05	10000	5.04E+02	2.05E-04	10000
200 West Area		***0.00E+00***								
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	4.32E+00	1.01E-02	10000	4.33E+00	1.01E-02	10000	5.70E+00	1.34E-02	10000
Tc-99	900	8.34E+00	6.79E+01	1370	8.36E+00	6.80E+01	1370	8.27E+00	6.73E+01	1370
Grouted Tc-99	900	1.57E+02	1.10E+01	680	1.57E+02	1.11E+01	680	3.34E+02	2.35E+01	680
I-129	1	1.04E-01	8.44E-01	1370	1.04E-01	8.46E-01	1370	1.05E-01	8.56E-01	1370
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	1.36E-02	4.14E-08	10000	1.36E-02	4.15E-08	10000	1.38E-02	4.20E-08	10000
U-234	30	1.61E+01	4.91E-05	10000	1.61E+01	4.92E-05	10000	3.40E+02	1.04E-03	10000
U-235	30	2.56E-01	7.82E-07	10000	2.57E-01	7.83E-07	10000	1.46E+01	4.46E-05	10000
U-236	30	3.01E-01	9.19E-07	10000	3.02E-01	9.20E-07	10000	3.05E-01	9.31E-07	10000
U-238	30	4.00E+00	1.22E-05	10000	4.01E+00	1.22E-05	10000	3.44E+02	1.05E-03	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		

Table G.26. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	2.71E+00	1070	3.89E+01	2.71E+00	1070	3.89E+01	2.71E+00	1070
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	8.49E-01	9.62E-04	10000	8.49E-01	9.62E-04	10000	8.49E-01	9.62E-04	10000
U-234	30	4.60E-01	5.21E-04	10000	4.60E-01	5.21E-04	10000	4.60E-01	5.21E-04	10000
U-235	30	1.90E-02	2.15E-05	10000	1.90E-02	2.15E-05	10000	1.90E-02	2.15E-05	10000
U-236	30	1.70E-02	1.93E-05	10000	1.70E-02	1.93E-05	10000	1.70E-02	1.93E-05	10000
U-238	30	4.10E-01	4.65E-04	10000	4.10E-01	4.65E-04	10000	4.10E-01	4.65E-04	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		

Table G.27. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a Line of Analysis Along the Columbia River, Alternative Group E_1

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.00E-01	2.63E-01	2000	3.66E-01	3.21E-01	2000	3.99E-01	3.50E-01	2000
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.62E-03	2.30E-03	2000	3.20E-03	2.81E-03	2000	3.20E-03	2.81E-03	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	1.03E-01	2.59E-07	10000	1.25E-01	2.64E-07	10000	1.25E-01	8.56E-08	10000
U-234	30	1.70E-01	4.29E-07	10000	2.07E-01	4.38E-07	10000	9.01E-01	6.17E-07	10000
U-235	30	3.56E-02	9.00E-08	10000	4.34E-02	9.18E-08	10000	8.86E-02	6.07E-08	10000
U-236	30	4.03E-03	1.02E-08	10000	4.92E-03	1.04E-08	10000	4.92E-03	3.37E-09	10000
U-238	30	4.06E-01	1.03E-06	10000	4.95E-01	1.05E-06	10000	1.66E+00	1.14E-06	10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710
I-129	1	3.39E-07	2.97E-07	2000	3.53E-07	3.09E-07	2000	3.53E-07	3.09E-07	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	9.79E-02	2.57E-12	10000	1.02E-01	2.57E-12	10000	2.32E-01	2.56E-12	10000
U-234	30	1.24E+02	3.25E-09	10000	1.29E+02	3.25E-09	10000	2.94E+02	3.25E-09	10000
U-235	30	3.54E+00	9.30E-11	10000	3.69E+00	9.30E-11	10000	8.39E+00	9.27E-11	10000
U-236	30	1.60E+01	4.21E-10	10000	1.67E+01	4.21E-10	10000	3.80E+01	4.20E-10	10000
U-238	30	1.99E+02	5.22E-09	10000	2.07E+02	5.22E-09	10000	4.72E+02	5.22E-09	10000

Table G.27. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.52E-04	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.99E+00	1400
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	1.06E+00	940
I-129	1	0.00E+00			0.00E+00			1.68E-02	2.34E-02	1400
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			2.22E-03	1.61E-06	10000
U-234	30	0.00E+00			0.00E+00			2.25E+02	1.63E-01	10000
U-235	30	0.00E+00			0.00E+00			9.96E+00	7.21E-03	10000
U-236	30	0.00E+00			0.00E+00			4.86E-02	3.52E-05	10000
U-238	30	0.00E+00			0.00E+00			2.33E+02	1.69E-01	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.01E+00	2000	3.44E+00	3.02E+00	2000	2.09E+00	1.83E+00	2000
Grouted Tc-99	900	4.91E+00	3.36E-02	1620	4.92E+00	3.37E-02	1620	5.96E+01	4.08E-01	1620
I-129	1	3.50E-02	3.07E-02	2000	3.51E-02	3.08E-02	2000	1.70E-02	1.49E-02	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	30	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	30	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	30	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	30	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	1.28E+01	6.49E-04	10000	1.56E+01	7.92E-04	10000	1.59E+01	8.07E-04	10000
Tc-99	900	1.08E+00	1.39E+00	1530	1.32E+00	1.70E+00	1530	1.33E+00	1.71E+00	1530
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	3.01E-03	3.87E-03	1530	3.67E-03	4.71E-03	1530	3.67E-03	4.71E-03	1530
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	3.71E-01	9.60E-05	10000	4.52E-01	1.12E-04	10000	4.52E-01	1.85E-04	10000
U-234	30	6.13E-01	1.59E-04	10000	7.47E-01	1.85E-04	10000	9.21E-01	3.77E-04	10000
U-235	30	1.29E-01	3.33E-05	10000	1.57E-01	3.88E-05	10000	1.68E-01	6.88E-05	10000
U-236	30	1.46E-02	3.78E-06	10000	1.78E-02	4.40E-06	10000	1.78E-02	7.29E-06	10000
U-238	30	1.47E+00	3.80E-04	10000	1.79E+00	4.43E-04	10000	2.08E+00	8.51E-04	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		

Table G.27. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	4.44E-01	2.25E-05	10000	4.62E-01	2.34E-05	10000	1.45E+02	7.36E-03	10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.23E+03	3.18E+01	860	3.23E+03	3.18E+01	860	3.23E+03	3.18E+01	860
I-129	1	1.96E-06	2.52E-06	1530	2.04E-06	2.62E-06	1530	2.04E-06	2.62E-06	1530
Grouted I-129	1	5.00E+00	1.56E-02	850	5.00E+00	1.56E-02	850	5.00E+00	1.56E-02	850
U-233	30	2.98E-01	6.92E-10	10000	3.10E-01	8.04E-10	10000	1.80E-01	1.20E-09	10000
U-234	30	3.73E+02	8.68E-07	10000	3.89E+02	1.01E-06	10000	3.11E+02	2.07E-06	10000
U-235	30	1.07E+01	2.48E-08	10000	1.11E+01	2.88E-08	10000	1.20E+01	7.98E-08	10000
U-236	30	4.82E+01	1.12E-07	10000	5.02E+01	1.30E-07	10000	2.89E+01	1.92E-07	10000
U-238	30	5.99E+02	1.39E-06	10000	6.24E+02	1.62E-06	10000	5.04E+02	3.35E-06	10000
200 West Area		0.00E+00								
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	4.32E+00	6.36E-05	10000	4.33E+00	6.38E-05	10000	5.70E+00	8.39E-05	10000
Tc-99	900	8.34E+00	9.43E+00	1590	8.36E+00	9.44E+00	1590	8.27E+00	9.34E+00	1590
Grouted Tc-99	900	1.57E+02	1.35E+00	940	1.57E+02	1.36E+00	940	3.34E+02	2.89E+00	940
I-129	1	1.04E-01	1.17E-01	1590	1.04E-01	1.17E-01	1590	1.05E-01	1.19E-01	1590
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	1.36E-02	2.13E-10	10000	1.36E-02	2.14E-10	10000	1.38E-02	2.17E-10	10000
U-234	30	1.61E+01	2.53E-07	10000	1.61E+01	2.54E-07	10000	3.40E+02	5.34E-06	10000
U-235	30	2.56E-01	4.03E-09	10000	2.57E-01	4.04E-09	10000	1.46E+01	2.30E-07	10000
U-236	30	3.01E-01	4.74E-09	10000	3.02E-01	4.74E-09	10000	3.05E-01	4.80E-09	10000
U-238	30	4.00E+00	6.29E-08	10000	4.01E+00	6.30E-08	10000	3.44E+02	5.40E-06	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		

Table G.27. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	2.38E-01	1420	3.89E+01	2.38E-01	1420	3.89E+01	2.38E-01	1420
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	8.49E-01	7.61E-07	10000	8.49E-01	7.61E-07	10000	8.49E-01	7.61E-07	10000
U-234	30	4.60E-01	4.12E-07	10000	4.60E-01	4.12E-07	10000	4.60E-01	4.12E-07	10000
U-235	30	1.90E-02	1.70E-08	10000	1.90E-02	1.70E-08	10000	1.90E-02	1.70E-08	10000
U-236	30	1.70E-02	1.52E-08	10000	1.70E-02	1.52E-08	10000	1.70E-02	1.52E-08	10000
U-238	30	4.10E-01	3.67E-07	10000	4.10E-01	3.67E-07	10000	4.10E-01	3.67E-07	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		

Table G.28. Predicted Peak River Flux of Key Constituents by Waste and Category at a Line of Analysis to the Columbia River, Alternative Group E_1

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area	0.00E+00								
C-14	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	3.00E-01	2.85E-03	2180	3.66E-01	3.48E-03	2180	3.99E-01	3.79E-03	2180
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	2.62E-03	2.49E-05	2180	3.20E-03	3.04E-05	2180	3.20E-03	3.04E-05	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.03E-01	2.00E-09	10000	1.25E-01	2.05E-09	10000	1.25E-01	6.72E-10	10000
U-234	1.70E-01	3.32E-09	10000	2.07E-01	3.40E-09	10000	9.01E-01	4.84E-09	10000
U-235	3.56E-02	6.96E-10	10000	4.34E-02	7.12E-10	10000	8.86E-02	4.76E-10	10000
U-236	4.03E-03	7.89E-11	10000	4.92E-03	8.07E-11	10000	4.92E-03	2.64E-11	10000
U-238	4.06E-01	7.93E-09	10000	4.95E-01	8.12E-09	10000	1.66E+00	8.92E-09	10000
1996-2007 Cat 3 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	7.20E+01	6.01E-03	1840	7.20E+01	6.01E-03	1840	7.20E+01	6.01E-03	1840
I-129	3.39E-07	3.22E-09	2180	3.53E-07	3.35E-09	2180	3.53E-07	3.35E-09	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	9.79E-02	2.03E-14	10000	1.02E-01	2.03E-14	10000	2.32E-01	2.03E-14	10000
U-234	1.24E+02	2.57E-11	10000	1.29E+02	2.57E-11	10000	2.94E+02	2.57E-11	10000
U-235	3.54E+00	7.36E-13	10000	3.69E+00	7.36E-13	10000	8.39E+00	7.34E-13	10000
U-236	1.60E+01	3.33E-12	10000	1.67E+01	3.33E-12	10000	3.80E+01	3.32E-12	10000
U-238	1.99E+02	4.13E-11	10000	2.07E+02	4.13E-11	10000	4.72E+02	4.13E-11	10000

Table G.28. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			1.60E+00	6.81E-07	10000
Tc-99	0.00E+00			0.00E+00			1.43E+00	1.86E-02	1450
Grouted Tc-99	0.00E+00			0.00E+00			1.23E+02	1.14E-02	970
I-129	0.00E+00			0.00E+00			1.68E-02	2.18E-04	1450
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			2.22E-03	1.05E-08	10000
U-234	0.00E+00			0.00E+00			2.25E+02	1.06E-03	10000
U-235	0.00E+00			0.00E+00			9.96E+00	4.71E-05	10000
U-236	0.00E+00			0.00E+00			4.86E-02	2.30E-07	10000
U-238	0.00E+00			0.00E+00			2.33E+02	1.10E-03	10000
200 West Area									
C-14	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	3.43E+00	3.26E-02	2180	3.44E+00	3.27E-02	2180	2.09E+00	1.99E-02	2180
Grouted Tc-99	4.91E+00	4.10E-04	1840	4.92E+00	4.10E-04	1840	5.96E+01	4.97E-03	1840
I-129	3.50E-02	3.33E-04	2180	3.51E-02	3.34E-04	2180	1.70E-02	1.62E-04	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008									
200 East Area									
C-14	1.28E+01	1.86E-06	10000	1.56E+01	2.27E-06	10000	1.59E+01	2.31E-06	10000
Tc-99	1.08E+00	1.27E-02	1600	1.32E+00	1.55E-02	1600	1.33E+00	1.56E-02	1600
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	3.01E-03	3.53E-05	1600	3.67E-03	4.30E-05	1600	3.67E-03	4.30E-05	1600
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	3.71E-01	2.74E-07	10000	4.52E-01	3.18E-07	10000	4.52E-01	5.46E-07	10000
U-234	6.13E-01	4.53E-07	10000	7.47E-01	5.26E-07	10000	9.21E-01	1.11E-06	10000
U-235	1.29E-01	9.51E-08	10000	1.57E-01	1.11E-07	10000	1.68E-01	2.03E-07	10000
U-236	1.46E-02	1.08E-08	10000	1.78E-02	1.25E-08	10000	1.78E-02	2.15E-08	10000
U-238	1.47E+00	1.08E-06	10000	1.79E+00	1.26E-06	10000	2.08E+00	2.51E-06	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.28. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008									
200 East Area									
C-14	4.44E-01	6.44E-08	10000	4.62E-01	6.71E-08	10000	1.45E+02	2.11E-05	10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.23E+03	2.99E-01	970	3.23E+03	2.99E-01	970	3.23E+03	2.99E-01	970
I-129	1.96E-06	2.29E-08	1600	2.04E-06	2.39E-08	1600	2.04E-06	2.39E-08	1600
Grouted I-129	5.00E+00	1.46E-04	970	5.00E+00	1.46E-04	970	5.00E+00	1.46E-04	970
U-233	2.98E-01	1.96E-12	10000	3.10E-01	2.28E-12	10000	1.80E-01	3.40E-12	10000
U-234	3.73E+02	2.46E-09	10000	3.89E+02	2.86E-09	10000	3.11E+02	5.87E-09	10000
U-235	1.07E+01	7.02E-11	10000	1.11E+01	8.16E-11	10000	1.20E+01	2.26E-10	10000
U-236	4.82E+01	3.18E-10	10000	5.02E+01	3.69E-10	10000	2.89E+01	5.45E-10	10000
U-238	5.99E+02	3.95E-09	10000	6.24E+02	4.59E-09	10000	5.04E+02	9.51E-09	10000
200 West Area	0.00E+00								
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
Projected Mixed LLW After 2008									
200 East Area									
C-14	4.32E+00	3.71E-07	10000	4.33E+00	3.72E-07	10000	5.70E+00	4.90E-07	10000
Tc-99	8.34E+00	9.43E-02	1630	8.36E+00	9.45E-02	1630	8.27E+00	9.35E-02	1630
Grouted Tc-99	1.57E+02	1.28E-02	12.46426 505	1.57E+02	1.45E-02	970	3.34E+02	3.09E-02	970
I-129	1.04E-01	1.17E-03	1630	1.04E-01	1.18E-03	1630	1.05E-01	1.19E-03	1630
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.36E-02	2.19E-12	10000	1.36E-02	2.19E-12	10000	1.38E-02	2.22E-12	10000
U-234	1.61E+01	2.60E-09	10000	1.61E+01	2.60E-09	10000	3.40E+02	5.49E-08	10000
U-235	2.56E-01	4.14E-11	10000	2.57E-01	4.15E-11	10000	1.46E+01	2.36E-09	10000
U-236	3.01E-01	4.86E-11	10000	3.02E-01	4.87E-11	10000	3.05E-01	4.93E-11	10000
U-238	4.00E+00	6.46E-10	10000	4.01E+00	6.47E-10	10000	3.44E+02	5.55E-08	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+**00**			0.00E+00			0.00E+00		

Table G.28. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste After 2008									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.89E+01	3.23E-03	1510	3.89E+01	3.23E-03	1510	3.89E+01	3.23E-03	1510
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	8.49E-01	4.92E-09	10000	8.49E-01	4.92E-09	10000	8.49E-01	4.92E-09	10000
U-234	4.60E-01	2.67E-09	10000	4.60E-01	2.67E-09	10000	4.60E-01	2.67E-09	10000
U-235	1.90E-02	1.10E-10	10000	1.90E-02	1.10E-10	10000	1.90E-02	1.10E-10	10000
U-236	1.70E-02	9.86E-11	10000	1.70E-02	9.86E-11	10000	1.70E-02	9.86E-11	10000
U-238	4.10E-01	2.38E-09	10000	4.10E-01	2.38E-09	10000	4.10E-01	2.38E-09	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.29. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a 1-km Line of Analysis, Alternative Group E_2

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		
200 West Area		0.00E+00								
C-14	2000	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.00E-01	3.00E+00	1700	3.66E-01	3.66E+00	1700	3.99E-01	3.99E+00	1700
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.62E-03	2.63E-02	1700	3.20E-03	3.20E-02	1700	3.20E-03	3.20E-02	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	1.03E-01	8.61E-04	10000	1.25E-01	9.44E-04	10000	1.25E-01	4.65E-04	10000
U-234	30	1.70E-01	1.43E-03	10000	2.07E-01	1.56E-03	10000	9.01E-01	3.35E-03	10000
U-235	30	3.56E-02	2.99E-04	10000	4.34E-02	3.28E-04	10000	8.86E-02	3.30E-04	10000
U-236	30	4.03E-03	3.39E-05	10000	4.92E-03	3.71E-05	10000	4.92E-03	1.83E-05	10000
U-238	30	4.06E-01	3.41E-03	10000	4.95E-01	3.74E-03	10000	1.66E+00	6.18E-03	10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	6.64E+00	1230	7.20E+01	3.46E+00	680	7.20E+01	6.64E+00	1230
I-129	1	3.39E-07	3.39E-06	1700	3.53E-07	3.53E-06	1700	3.53E-07	3.53E-06	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	9.79E-02	3.61E-08	10000	1.02E-01	3.61E-08	10000	2.32E-01	3.60E-08	10000
U-234	30	1.24E+02	4.56E-05	10000	1.29E+02	4.56E-05	10000	2.94E+02	4.56E-05	10000
U-235	30	3.54E+00	1.30E-06	10000	3.69E+00	1.30E-06	10000	8.39E+00	1.30E-06	10000
U-236	30	1.60E+01	5.90E-06	10000	1.67E+01	5.90E-06	10000	3.80E+01	5.89E-06	10000
U-238	30	1.99E+02	7.32E-05	10000	2.07E+02	7.32E-05	10000	4.72E+02	7.32E-05	10000

Table G.29. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.27E-02	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.18E+01	1230
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	8.66E+00	680
I-129	1	0.00E+00			0.00E+00			1.68E-02	1.39E-01	1230
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			2.22E-03	5.18E-05	10000
U-234	30	0.00E+00			0.00E+00			2.25E+02	5.24E+00	10000
U-235	30	0.00E+00			0.00E+00			9.96E+00	2.32E-01	10000
U-236	30	0.00E+00			0.00E+00			4.86E-02	1.13E-03	10000
U-238	30	0.00E+00			0.00E+00			2.33E+02	5.43E+00	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.44E+01	1700	3.44E+00	3.44E+01	1700	2.09E+00	2.09E+01	1700
Grouted Tc-99	900	4.91E+00	3.50E-01	1200	4.92E+00	3.51E-01	1200	5.96E+01	4.25E+00	1200
I-129	1	3.50E-02	3.51E-01	1700	3.51E-02	3.51E-01	1700	1.70E-02	1.70E-01	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	30	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	30	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	30	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	30	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	1.28E+01	2.01E-02	10000	1.56E+01	2.45E-02	10000	1.59E+01	2.50E-02	10000
Tc-99	900	1.08E+00	6.39E+00	1380	1.32E+00	7.80E+00	1380	1.33E+00	7.86E+00	1380
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	3.01E-03	1.78E-02	1380	3.67E-03	2.17E-02	1380	3.67E-03	2.17E-02	1380
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	3.71E-01	3.29E-03	10000	4.52E-01	3.88E-03	10000	4.52E-01	5.61E-03	10000
U-234	30	6.13E-01	5.44E-03	10000	7.47E-01	6.41E-03	10000	9.21E-01	1.14E-02	10000
U-235	30	1.29E-01	1.14E-03	10000	1.57E-01	1.35E-03	10000	1.68E-01	2.08E-03	10000
U-236	30	1.46E-02	1.30E-04	10000	1.78E-02	1.53E-04	10000	1.78E-02	2.21E-04	10000
U-238	30	1.47E+00	1.30E-02	10000	1.79E+00	1.54E-02	10000	2.08E+00	2.58E-02	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		

Table G.29. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	4.44E-01	6.97E-04	10000	4.62E-01	7.26E-04	10000	1.45E+02	2.28E-01	10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.23E+03	1.55E+02	680	3.23E+03	1.55E+02	680	3.23E+03	1.55E+02	680
I-129	1	1.96E-06	1.16E-05	1380	2.04E-06	1.21E-05	1380	2.04E-06	1.21E-05	1380
Grouted I-129	1	5.00E+00	7.61E-02	680	5.00E+00	7.61E-02	680	5.00E+00	7.61E-02	680
U-233	30	2.98E-01	2.56E-08	10000	3.10E-01	2.97E-08	10000	1.80E-01	4.43E-08	10000
U-234	30	3.73E+02	3.21E-05	10000	3.89E+02	3.73E-05	10000	3.11E+02	7.65E-05	10000
U-235	30	1.07E+01	9.16E-07	10000	1.11E+01	1.06E-06	10000	1.20E+01	2.95E-06	10000
U-236	30	4.82E+01	4.14E-06	10000	5.02E+01	4.81E-06	10000	2.89E+01	7.11E-06	10000
U-238	30	5.99E+02	5.15E-05	10000	6.24E+02	5.98E-05	10000	5.04E+02	1.24E-04	10000
200 West Area		0.00E+00								
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	4.32E+00	6.79E-03	10000	4.33E+00	6.81E-03	10000	5.70E+00	8.96E-03	10000
Tc-99	900	8.34E+00	4.93E+01	1380	8.36E+00	4.94E+01	1380	8.27E+00	4.89E+01	1380
Grouted Tc-99	900	1.57E+02	7.54E+00	680	1.57E+02	7.55E+00	680	3.34E+02	1.61E+01	680
I-129	1	1.04E-01	6.13E-01	1380	1.04E-01	6.14E-01	1380	1.05E-01	6.21E-01	1380
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	1.36E-02	2.85E-08	10000	1.36E-02	2.86E-08	10000	1.38E-02	2.90E-08	10000
U-234	30	1.61E+01	3.39E-05	10000	1.61E+01	3.39E-05	10000	3.40E+02	7.15E-04	10000
U-235	30	2.56E-01	5.39E-07	10000	2.57E-01	5.41E-07	10000	1.46E+01	3.08E-05	10000
U-236	30	3.01E-01	6.34E-07	10000	3.02E-01	6.35E-07	10000	3.05E-01	6.42E-07	10000
U-238	30	4.00E+00	8.42E-06	10000	4.01E+00	8.43E-06	10000	3.44E+02	7.24E-04	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		

Table G.29. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	2.71E+00	1070	3.89E+01	2.71E+00	1070	3.89E+01	2.71E+00	1070
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	8.49E-01	9.62E-04	10000	8.49E-01	9.62E-04	10000	8.49E-01	9.62E-04	10000
U-234	30	4.60E-01	5.21E-04	10000	4.60E-01	5.21E-04	10000	4.60E-01	5.21E-04	10000
U-235	30	1.90E-02	2.15E-05	10000	1.90E-02	2.15E-05	10000	1.90E-02	2.15E-05	10000
U-236	30	1.70E-02	1.93E-05	10000	1.70E-02	1.93E-05	10000	1.70E-02	1.93E-05	10000
U-238	30	4.10E-01	4.65E-04	10000	4.10E-01	4.65E-04	10000	4.10E-01	4.65E-04	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		

Table G.30. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a Line of Analysis Along the Columbia River, Alternative Group E_2

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concentra-tion (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concentra-tion (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concentra-tion (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		
200 West Area		0.00E+00								
C-14	2000	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.00E-01	2.63E-01	2000	3.66E-01	3.21E-01	2000	3.99E-01	3.50E-01	2000
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.62E-03	2.30E-03	2000	3.20E-03	2.81E-03	2000	3.20E-03	2.81E-03	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	1.03E-01	2.59E-07	10000	1.25E-01	2.64E-07	10000	1.25E-01	8.56E-08	10000
U-234	30	1.70E-01	4.29E-07	10000	2.07E-01	4.38E-07	10000	9.01E-01	6.17E-07	10000
U-235	30	3.56E-02	9.00E-08	10000	4.34E-02	9.18E-08	10000	8.86E-02	6.07E-08	10000
U-236	30	4.03E-03	1.02E-08	10000	4.92E-03	1.04E-08	10000	4.92E-03	3.37E-09	10000
U-238	30	4.06E-01	1.03E-06	10000	4.95E-01	1.05E-06	10000	1.66E+00	1.14E-06	10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710
I-129	1	3.39E-07	2.97E-07	2000	3.53E-07	3.09E-07	2000	3.53E-07	3.09E-07	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	9.79E-02	2.57E-12	10000	1.02E-01	2.57E-12	10000	2.32E-01	2.56E-12	10000
U-234	30	1.24E+02	3.25E-09	10000	1.29E+02	3.25E-09	10000	2.94E+02	3.25E-09	10000
U-235	30	3.54E+00	9.30E-11	10000	3.69E+00	9.30E-11	10000	8.39E+00	9.27E-11	10000
U-236	30	1.60E+01	4.21E-10	10000	1.67E+01	4.21E-10	10000	3.80E+01	4.20E-10	10000
U-238	30	1.99E+02	5.22E-09	10000	2.07E+02	5.22E-09	10000	4.72E+02	5.22E-09	10000

Table G.30. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.52E-04	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.99E+00	1400
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	1.06E+00	940
I-129	1	0.00E+00			0.00E+00			1.68E-02	2.34E-02	1400
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			2.22E-03	1.61E-06	10000
U-234	30	0.00E+00			0.00E+00			2.25E+02	1.63E-01	10000
U-235	30	0.00E+00			0.00E+00			9.96E+00	7.21E-03	10000
U-236	30	0.00E+00			0.00E+00			4.86E-02	3.52E-05	10000
U-238	30	0.00E+00			0.00E+00			2.33E+02	1.69E-01	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.01E+00	2000	3.44E+00	3.02E+00	2000	2.09E+00	1.83E+00	2000
Grouted Tc-99	900	4.91E+00	3.36E-02	1620	4.92E+00	3.37E-02	1620	5.96E+01	4.08E-01	1620
I-129	1	3.50E-02	3.07E-02	2000	3.51E-02	3.08E-02	2000	1.70E-02	1.49E-02	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	30	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	30	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	30	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	30	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	1.28E+01	2.96E-04	10000	1.56E+01	3.61E-04	10000	1.59E+01	3.68E-04	10000
Tc-99	900	1.08E+00	7.36E-01	1510	1.32E+00	8.97E-01	1510	1.33E+00	9.04E-01	1510
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	3.01E-03	2.05E-03	1510	3.67E-03	2.50E-03	1510	3.67E-03	2.50E-03	1510
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	3.71E-01	3.29E-03	10000	4.52E-01	3.88E-03	10000	4.52E-01	5.61E-03	10000
U-234	30	6.13E-01	5.44E-03	10000	7.47E-01	6.41E-03	10000	9.21E-01	1.14E-02	10000
U-235	30	1.29E-01	1.14E-03	10000	1.57E-01	1.35E-03	10000	1.68E-01	2.08E-03	10000
U-236	30	1.46E-02	1.30E-04	10000	1.78E-02	1.53E-04	10000	1.78E-02	2.21E-04	10000
U-238	30	1.47E+00	1.30E-02	10000	1.79E+00	1.54E-02	10000	2.08E+00	2.58E-02	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		

Table G.30. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	4.44E-01	1.03E-05	10000	4.62E-01	1.07E-05	10000	1.45E+02	3.35E-03	10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.23E+03	1.69E+01	820	3.23E+03	1.69E+01	820	3.23E+03	1.69E+01	820
I-129	1	1.96E-06	1.33E-06	1510	2.04E-06	1.39E-06	1510	2.04E-06	1.39E-06	1510
Grouted I-129	1	5.00E+00	0.00E+00	820	5.00E+00	8.26E-03	820	5.00E+00	0.00E+00	820
U-233	30	2.98E-01	2.56E-08	10000	3.10E-01	2.97E-08	10000	1.80E-01	4.43E-08	10000
U-234	30	3.73E+02	3.21E-05	10000	3.89E+02	3.73E-05	10000	3.11E+02	7.65E-05	10000
U-235	30	1.07E+01	9.16E-07	10000	1.11E+01	1.06E-06	10000	1.20E+01	2.95E-06	10000
U-236	30	4.82E+01	4.14E-06	10000	5.02E+01	4.81E-06	10000	2.89E+01	7.11E-06	10000
U-238	30	5.99E+02	5.15E-05	10000	6.24E+02	5.98E-05	10000	5.04E+02	1.24E-04	10000
200 West Area		0.00E+00								
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	4.32E+00	9.99E-05	10000	4.33E+00	1.00E-04	10000	5.70E+00	1.32E-04	10000
Tc-99	900	8.34E+00	5.67E+00	1510	8.36E+00	5.68E+00	1510	8.27E+00	5.62E+00	1510
Grouted Tc-99	900	1.57E+02	8.19E-01	820	1.57E+02	8.21E-01	820	3.34E+02	1.75E+00	820
I-129	1	1.04E-01	7.06E-02	1510	1.04E-01	7.07E-02	1510	1.05E-01	7.15E-02	1510
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	1.36E-02	2.85E-08	10000	1.36E-02	3.55E-10	10000	1.38E-02	2.90E-08	10000
U-234	30	1.61E+01	3.39E-05	10000	1.61E+01	4.21E-07	10000	3.40E+02	7.15E-04	10000
U-235	30	2.56E-01	5.39E-07	10000	2.57E-01	6.70E-09	10000	1.46E+01	3.08E-05	10000
U-236	30	3.01E-01	6.34E-07	10000	3.02E-01	7.88E-09	10000	3.05E-01	6.42E-07	10000
U-238	30	4.00E+00	8.42E-06	10000	4.01E+00	1.05E-07	10000	3.44E+02	7.24E-04	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		

Table G.30. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	2.38E-01	1420	3.89E+01	2.38E-01	1420	3.89E+01	2.38E-01	1420
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	8.49E-01	0.00E+00	>10000	8.49E-01	0.00E+00	>10000	8.49E-01	0.00E+00	>10000
U-234	30	4.60E-01	0.00E+00	>10000	4.60E-01	0.00E+00	>10000	4.60E-01	0.00E+00	>10000
U-235	30	1.90E-02	0.00E+00	>10000	1.90E-02	0.00E+00	>10000	1.90E-02	0.00E+00	>10000
U-236	30	1.70E-02	0.00E+00	>10000	1.70E-02	0.00E+00	>10000	1.70E-02	0.00E+00	>10000
U-238	30	4.10E-01	0.00E+00	>10000	4.10E-01	0.00E+00	>10000	4.10E-01	0.00E+00	>10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	30	0.00E+00			0.00E+00			0.00E+00		
U-234	30	0.00E+00			0.00E+00			0.00E+00		
U-235	30	0.00E+00			0.00E+00			0.00E+00		
U-236	30	0.00E+00			0.00E+00			0.00E+00		
U-238	30	0.00E+00			0.00E+00			0.00E+00		

Table G.31. Predicted Peak River Flux of Key Constituents by Waste and Category at a Line of Analysis to the Columbia River, Alternative Group E_2

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	3.00E-01	2.85E-03	2180	3.66E-01	3.48E-03	2180	3.99E-01	3.79E-03	2180
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	2.62E-03	2.49E-05	2180	3.20E-03	3.04E-05	2180	3.20E-03	3.04E-05	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.03E-01	2.00E-09	10000	1.25E-01	2.05E-09	10000	1.25E-01	6.72E-10	10000
U-234	1.70E-01	3.32E-09	10000	2.07E-01	3.40E-09	10000	9.01E-01	4.84E-09	10000
U-235	3.56E-02	6.96E-10	10000	4.34E-02	7.12E-10	10000	8.86E-02	4.76E-10	10000
U-236	4.03E-03	7.89E-11	10000	4.92E-03	8.07E-11	10000	4.92E-03	2.64E-11	10000
U-238	4.06E-01	7.93E-09	10000	4.95E-01	8.12E-09	10000	1.66E+00	8.92E-09	10000
1996-2007 Cat 3 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	7.20E+01	6.01E-03	1840	7.20E+01	6.01E-03	1840	7.20E+01	6.01E-03	1840
I-129	3.39E-07	3.22E-09	2180	3.53E-07	3.35E-09	2180	3.53E-07	3.35E-09	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	9.79E-02	2.03E-14	10000	1.02E-01	2.03E-14	10000	2.32E-01	2.03E-14	10000
U-234	1.24E+02	2.57E-11	10000	1.29E+02	2.57E-11	10000	2.94E+02	2.57E-11	10000
U-235	3.54E+00	7.36E-13	10000	3.69E+00	7.36E-13	10000	8.39E+00	7.34E-13	10000
U-236	1.60E+01	3.33E-12	10000	1.67E+01	3.33E-12	10000	3.80E+01	3.32E-12	10000
U-238	1.99E+02	4.13E-11	10000	2.07E+02	4.13E-11	10000	4.72E+02	4.13E-11	10000

Table G.31. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			1.60E+00	6.81E-07	10000
Tc-99	0.00E+00			0.00E+00			1.43E+00	1.86E-02	1450
Grouted Tc-99	0.00E+00			0.00E+00			1.23E+02	1.14E-02	970
I-129	0.00E+00			0.00E+00			1.68E-02	2.18E-04	1450
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			2.22E-03	1.61E-06	10000
U-234	0.00E+00			0.00E+00			2.25E+02	1.63E-01	10000
U-235	0.00E+00			0.00E+00			9.96E+00	7.21E-03	10000
U-236	0.00E+00			0.00E+00			4.86E-02	3.52E-05	10000
U-238	0.00E+00			0.00E+00			2.33E+02	1.69E-01	10000
200 West Area									
C-14	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	3.43E+00	3.26E-02	2180	3.44E+00	3.27E-02	2180	2.09E+00	1.99E-02	2180
Grouted Tc-99	4.91E+00	4.10E-04	1840	4.92E+00	4.10E-04	1840	5.96E+01	4.97E-03	1840
I-129	3.50E-02	3.33E-04	2180	3.51E-02	3.34E-04	2180	1.70E-02	1.62E-04	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008									
200 East Area									
C-14	1.28E+01	3.60E-06	10000	1.56E+01	4.39E-06	10000	1.59E+01	4.48E-06	10000
Tc-99	1.08E+00	1.15E-02	1530	1.32E+00	1.40E-02	1530	1.33E+00	1.41E-02	1530
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	3.01E-03	3.19E-05	1530	3.67E-03	3.89E-05	1530	3.67E-03	3.89E-05	1530
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	3.71E-01	3.29E-03	10000	4.52E-01	3.88E-03	10000	4.52E-01	5.61E-03	10000
U-234	6.13E-01	5.44E-03	10000	7.47E-01	6.41E-03	10000	9.21E-01	1.14E-02	10000
U-235	1.29E-01	1.14E-03	10000	1.57E-01	1.35E-03	10000	1.68E-01	2.08E-03	10000
U-236	1.46E-02	1.30E-04	10000	1.78E-02	1.53E-04	10000	1.78E-02	2.21E-04	10000
U-238	1.47E+00	1.30E-02	10000	1.79E+00	1.54E-02	10000	2.08E+00	2.58E-02	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.31. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008									
200 East Area									
C-14	4.44E-01	1.25E-07	10000	4.62E-01	1.30E-07	10000	1.45E+02	4.08E-05	10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.23E+03	2.65E-01	870	3.23E+03	2.65E-01	870	3.23E+03	2.65E-01	870
I-129	1.96E-06	2.07E-08	1530	2.04E-06	2.16E-08	1530	2.04E-06	2.16E-08	1530
Grouted I-129	5.00E+00	0.00E+00	870	5.00E+00	1.30E-04	870	5.00E+00	0.00E+00	870
U-233	2.98E-01	2.56E-08	10000	3.10E-01	2.97E-08	10000	1.80E-01	4.43E-08	10000
U-234	3.73E+02	3.21E-05	10000	3.89E+02	3.73E-05	10000	3.11E+02	7.65E-05	10000
U-235	1.07E+01	9.16E-07	10000	1.11E+01	1.06E-06	10000	1.20E+01	2.95E-06	10000
U-236	4.82E+01	4.14E-06	10000	5.02E+01	4.81E-06	10000	2.89E+01	7.11E-06	10000
U-238	5.99E+02	5.15E-05	10000	6.24E+02	5.98E-05	10000	5.04E+02	1.24E-04	10000
200 West Area	0.00E+00								
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00	0.00E+00	0	0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
Projected Mixed LLW After 2008									
200 East Area									
C-14	4.32E+00	1.22E-06	10000	4.33E+00	1.22E-06	10000	5.70E+00	1.61E-06	10000
Tc-99	8.34E+00	8.84E-02	1530	8.36E+00	8.85E-02	1530	8.27E+00	8.76E-02	1530
Grouted Tc-99	1.57E+02	1.28E-02	870	1.57E+02	1.29E-02	870	3.34E+02	2.74E-02	870
I-129	1.04E-01	1.10E-03	1530	1.04E-01	1.10E-03	1530	1.05E-01	1.11E-03	1530
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.36E-02	2.85E-08	10000	1.36E-02	4.30E-12	10000	1.38E-02	2.90E-08	10000
U-234	1.61E+01	3.39E-05	10000	1.61E+01	5.11E-09	10000	3.40E+02	7.15E-04	10000
U-235	2.56E-01	5.39E-07	10000	2.57E-01	8.13E-11	10000	1.46E+01	3.08E-05	10000
U-236	3.01E-01	6.34E-07	10000	3.02E-01	9.56E-11	10000	3.05E-01	6.42E-07	10000
U-238	4.00E+00	8.42E-06	10000	4.01E+00	1.27E-09	10000	3.44E+02	7.24E-04	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.31. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.89E+01	3.23E-03	1510	3.89E+01	3.23E-03	1510	3.89E+01	3.23E-03	1510
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	8.49E-01	0.00E+00	>10000	8.49E-01	0.00E+00	>10000	8.49E-01	0.00E+00	>10000
U-234	4.60E-01	0.00E+00	>10000	4.60E-01	0.00E+00	>10000	4.60E-01	0.00E+00	>10000
U-235	1.90E-02	0.00E+00	>10000	1.90E-02	0.00E+00	>10000	1.90E-02	0.00E+00	>10000
U-236	1.70E-02	0.00E+00	>10000	1.70E-02	0.00E+00	>10000	1.70E-02	0.00E+00	>10000
U-238	4.10E-01	0.00E+00	>10000	4.10E-01	0.00E+00	>10000	4.10E-01	0.00E+00	>10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.32. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a 1-km Line of Analysis, Alternative Group E_3

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.00E-01	3.00E+00	1700	3.66E-01	3.66E+00	1700	3.99E-01	3.99E+00	1700
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.62E-03	2.63E-02	1700	3.20E-03	3.20E-02	1700	3.20E-03	3.20E-02	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.03E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000
U-234	(a)	1.70E-01	0.00E+00	>10000	2.07E-01	0.00E+00	>10000	9.01E-01	0.00E+00	>10000
U-235	(a)	3.56E-02	0.00E+00	>10000	4.34E-02	0.00E+00	>10000	8.86E-02	0.00E+00	>10000
U-236	(a)	4.03E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000
U-238	(a)	4.06E-01	0.00E+00	>10000	4.95E-01	0.00E+00	>10000	1.66E+00	0.00E+00	>10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	6.64E+00	1230	7.20E+01	6.64E+00	1230	7.20E+01	6.64E+00	1230
I-129	1	3.39E-07	3.39E-06	1700	3.53E-07	3.53E-06	1700	3.53E-07	3.53E-06	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	9.79E-02	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	2.32E-01	0.00E+00	>10000
U-234	(a)	1.24E+02	0.00E+00	>10000	1.29E+02	0.00E+00	>10000	2.94E+02	0.00E+00	>10000
U-235	(a)	3.54E+00	0.00E+00	>10000	3.69E+00	0.00E+00	>10000	8.39E+00	0.00E+00	>10000
U-236	(a)	1.60E+01	0.00E+00	>10000	1.67E+01	0.00E+00	>10000	3.80E+01	0.00E+00	>10000
U-238	(a)	1.99E+02	0.00E+00	>10000	2.07E+02	0.00E+00	>10000	4.72E+02	0.00E+00	>10000

Table G.32. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.27E-02	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.18E+01	1230
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	8.66E+00	680
I-129	1	0.00E+00			0.00E+00			1.68E-02	1.39E-01	1230
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			2.22E-03	5.18E-05	10000
U-234	(a)	0.00E+00			0.00E+00			2.25E+02	5.24E+00	10000
U-235	(a)	0.00E+00			0.00E+00			9.96E+00	2.32E-01	10000
U-236	(a)	0.00E+00			0.00E+00			4.86E-02	1.13E-03	10000
U-238	(a)	0.00E+00			0.00E+00			2.33E+02	5.43E+00	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.44E+01	1700	3.44E+00	3.44E+01	1700	2.09E+00	2.09E+01	1700
Grouted Tc-99	900	4.91E+00	3.50E-01	1200	4.92E+00	3.51E-01	1200	5.96E+01	4.25E+00	1200
I-129	1	3.50E-02	3.51E-01	1700	3.51E-02	3.51E-01	1700	1.70E-02	1.70E-01	1700
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	(a)	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	(a)	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	(a)	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	(a)	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.28E+01	0.00E+00	>10000	1.56E+01	0.00E+00	>10000	1.59E+01	0.00E+00	>10000
Tc-99	900	1.08E+00	9.31E+00	1740	1.32E+00	1.14E+01	1740	1.33E+00	1.14E+01	1740
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	3.01E-03	2.59E-02	1740	3.67E-03	3.16E-02	1740	3.67E-03	3.16E-02	1740
Grouted I-129	1	0.00E+00			0.00E+00	0.00E+00		0.00E+00		
U-233	(a)	3.71E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000
U-234	(a)	6.13E-01	0.00E+00	>10000	7.47E-01	0.00E+00	>10000	9.21E-01	0.00E+00	>10000
U-235	(a)	1.29E-01	0.00E+00	>10000	1.57E-01	0.00E+00	>10000	1.68E-01	0.00E+00	>10000
U-236	(a)	1.46E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000
U-238	(a)	1.47E+00	0.00E+00	>10000	1.79E+00	0.00E+00	>10000	2.08E+00	0.00E+00	>10000

Table G.32. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	4.44E-01	5.47E-04	10000	4.62E-01	5.69E-04	10000	1.45E+02	1.79E-01	10000
Tc-99	900	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00		0.00E+00	0.00E+00	0
Grouted Tc-99	900	3.23E+03	2.25E+02	1070	3.23E+03	2.25E+02	1070	3.23E+03	2.25E+02	1070
I-129	1	1.96E-06	1.69E-05	1740	2.04E-06	1.76E-05	1740	2.04E-06	1.76E-05	1740
Grouted I-129	1	5.00E+00	1.10E-01	1070	5.00E+00	1.10E-01	1070	5.00E+00	1.10E-01	1070
U-233	(a)	2.98E-01	0.00E+00	>10000	3.10E-01	0.00E+00	>10000	1.80E-01	0.00E+00	>10000
U-234	(a)	3.73E+02	0.00E+00	>10000	3.89E+02	0.00E+00	>10000	3.11E+02	0.00E+00	>10000
U-235	(a)	1.07E+01	0.00E+00	>10000	1.11E+01	0.00E+00	>10000	1.20E+01	0.00E+00	>10000
U-236	(a)	4.82E+01	0.00E+00	>10000	5.02E+01	0.00E+00	>10000	2.89E+01	0.00E+00	>10000
U-238	(a)	5.99E+02	0.00E+00	>10000	6.24E+02	0.00E+00	>10000	5.04E+02	0.00E+00	>10000
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	4.32E+00	5.33E-03	10000	4.33E+00	5.34E-03	10000	5.70E+00	7.03E-03	10000
Tc-99	900	8.34E+00	7.18E+01	1740	8.36E+00	7.18E+01	1740	8.27E+00	7.12E+01	1740
Grouted Tc-99	900	1.57E+02	1.09E+01	1070	1.57E+02	1.09E+01	1070	3.34E+02	2.33E+01	1070
I-129	1	1.04E-01	8.93E-01	1740	1.04E-01	8.93E-01	1740	1.05E-01	9.05E-01	1740
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.36E-02	0.00E+00	>10000	1.36E-02	0.00E+00	>10000	1.38E-02	0.00E+00	>10000
U-234	(a)	1.61E+01	0.00E+00	>10000	1.61E+01	0.00E+00	>10000	3.40E+02	0.00E+00	>10000
U-235	(a)	2.56E-01	0.00E+00	>10000	2.57E-01	0.00E+00	>10000	1.46E+01	0.00E+00	>10000
U-236	(a)	3.01E-01	0.00E+00	>10000	3.02E-01	0.00E+00	>10000	3.05E-01	0.00E+00	>10000
U-238	(a)	4.00E+00	0.00E+00	>10000	4.01E+00	0.00E+00	>10000	3.44E+02	0.00E+00	>10000

Table G.32. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	1.87E+00	680	3.89E+01	1.87E+00	680	3.89E+01	1.87E+00	680
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	8.49E-01	1.26E-03	10000	8.49E-01	1.26E-03	10000	8.49E-01	1.26E-03	10000
U-234	(a)	4.60E-01	6.82E-04	10000	4.60E-01	6.82E-04	10000	4.60E-01	6.82E-04	10000
U-235	(a)	1.90E-02	2.82E-05	10000	1.90E-02	2.82E-05	10000	1.90E-02	2.82E-05	10000
U-236	(a)	1.70E-02	2.52E-05	10000	1.70E-02	2.52E-05	10000	1.70E-02	2.52E-05	10000
U-238	(a)	4.10E-01	6.08E-04	10000	4.10E-01	6.08E-04	10000	4.10E-01	6.08E-04	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.33. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a Line of Analysis Along the Columbia River, Alternative Group E_3

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concentra-tion (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concentra-tion (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concentra-tion (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	900	3.00E-01	2.63E-01	2000	3.66E-01	3.21E-01	2000	3.99E-01	3.50E-01	2000
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	2.62E-03	2.30E-03	2000	3.20E-03	2.81E-03	2000	3.20E-03	2.81E-03	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.03E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000
U-234	(a)	1.70E-01	0.00E+00	>10000	2.07E-01	0.00E+00	>10000	9.01E-01	0.00E+00	>10000
U-235	(a)	3.56E-02	0.00E+00	>10000	4.34E-02	0.00E+00	>10000	8.86E-02	0.00E+00	>10000
U-236	(a)	4.03E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000
U-238	(a)	4.06E-01	0.00E+00	>10000	4.95E-01	0.00E+00	>10000	1.66E+00	0.00E+00	>10000
1996-2007 Cat 3 LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710	7.20E+01	4.62E-01	1710
I-129	1	3.39E-07	2.97E-07	2000	3.53E-07	3.09E-07	2000	3.53E-07	3.09E-07	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	9.79E-02	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	2.32E-01	0.00E+00	>10000
U-234	(a)	1.24E+02	0.00E+00	>10000	1.29E+02	0.00E+00	>10000	2.94E+02	0.00E+00	>10000
U-235	(a)	3.54E+00	0.00E+00	>10000	3.69E+00	0.00E+00	>10000	8.39E+00	0.00E+00	>10000
U-236	(a)	1.60E+01	0.00E+00	>10000	1.67E+01	0.00E+00	>10000	3.80E+01	0.00E+00	>10000
U-238	(a)	1.99E+02	0.00E+00	>10000	2.07E+02	0.00E+00	>10000	4.72E+02	0.00E+00	>10000

Table G.33. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			1.60E+00	1.52E-04	10000
Tc-99	900	0.00E+00			0.00E+00			1.43E+00	1.99E+00	1400
Grouted Tc-99	900	0.00E+00			0.00E+00			1.23E+02	8.41E-01	1620
I-129	1	0.00E+00			0.00E+00			1.68E-02	2.34E-02	1400
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			2.22E-03	1.61E-06	10000
U-234	(a)	0.00E+00			0.00E+00			2.25E+02	1.63E-01	10000
U-235	(a)	0.00E+00			0.00E+00			9.96E+00	7.21E-03	10000
U-236	(a)	0.00E+00			0.00E+00			4.86E-02	3.52E-05	10000
U-238	(a)	0.00E+00			0.00E+00			2.33E+02	1.69E-01	10000
200 West Area										
C-14	2000	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	900	3.43E+00	3.01E+00	2000	3.44E+00	3.02E+00	2000	2.09E+00	1.83E+00	2000
Grouted Tc-99	900	4.91E+00	3.36E-02	1620	4.92E+00	3.37E-02	1620	5.96E+01	4.08E-01	1620
I-129	1	3.50E-02	3.07E-02	2000	3.51E-02	3.08E-02	2000	1.70E-02	1.49E-02	2000
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	(a)	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	(a)	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	(a)	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	(a)	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	1.28E+01	1.38E-05	10000	1.56E+01	1.69E-05	10000	1.59E+01	1.72E-05	10000
Tc-99	900	1.08E+00	8.62E-01	1660	1.32E+00	1.05E+00	1660	1.33E+00	1.06E+00	1660
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	3.01E-03	2.40E-03	1660	3.67E-03	2.92E-03	1660	3.67E-03	2.92E-03	1660
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	3.71E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000
U-234	(a)	6.13E-01	0.00E+00	>10000	7.47E-01	0.00E+00	>10000	9.21E-01	0.00E+00	>10000
U-235	(a)	1.29E-01	0.00E+00	>10000	1.57E-01	0.00E+00	>10000	1.68E-01	0.00E+00	>10000
U-236	(a)	1.46E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000
U-238	(a)	1.47E+00	0.00E+00	>10000	1.79E+00	0.00E+00	>10000	2.08E+00	0.00E+00	>10000

Table G.33. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	**Maximum Concen-tration (pCi/L)**	**Approx. Peak Arrival Time (yrs)**	**Inventory (Ci)**	Maximum Concen-tration **(pCi/L)**	**Approx. Peak Arrival Time (yrs)**	**Inventory (Ci)**	**Maximum Concen-tration (pCi/L)**	**Approx. Peak Arrival Time (yrs)**
Projected Cat 3 LLW After 2008										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		
200 West Area										
C-14	2000	4.44E-01	4.80E-07	10000	4.62E-01	5.00E-07	10000	1.45E+02	1.57E-04	10000
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.23E+03	1.97E+01	1420	3.23E+03	1.97E+01	1420	3.23E+03	1.97E+01	1420
I-129	1	1.96E-06	1.56E-06	1660	2.04E-06	1.62E-06	1660	2.04E-06	1.62E-06	1660
Grouted I-129	1	5.00E+00	1.01E-02	1700	5.00E+00	1.01E-02	1700	5.00E+00	1.01E-02	1700
U-233	(a)	2.98E-01	0.00E+00	>10000	3.10E-01	0.00E+00	>10000	1.80E-01	0.00E+00	>10000
U-234	(a)	3.73E+02	0.00E+00	>10000	3.89E+02	0.00E+00	>10000	3.11E+02	0.00E+00	>10000
U-235	(a)	1.07E+01	0.00E+00	>10000	1.11E+01	0.00E+00	>10000	1.20E+01	0.00E+00	>10000
U-236	(a)	4.82E+01	0.00E+00	>10000	5.02E+01	0.00E+00	>10000	2.89E+01	0.00E+00	>10000
U-238	(a)	5.99E+02	0.00E+00	>10000	6.24E+02	0.00E+00	>10000	5.04E+02	0.00E+00	>10000
Projected Mixed LLW After 2008										
200 East Area										
C-14	2000	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0
Tc-99	900	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0
Grouted Tc-99	900	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0
I-129	1	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0
Grouted I-129	1	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0
U-233	(a)	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0
U-234	(a)	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0
U-235	(a)	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0
U-236	(a)	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0
U-238	(a)	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0	0.00E+00	0.00E+00	0
200 West Area										
C-14	2000	4.32E+00	4.67E-06	10000	4.33E+00	4.68E-06	10000	5.70E+00	6.17E-06	10000
Tc-99	900	8.34E+00	6.64E+00	1660	8.36E+00	6.65E+00	1660	8.27E+00	6.58E+00	1660
Grouted Tc-99	900	1.57E+02	9.56E-01	1420	1.57E+02	9.58E-01	1420	3.34E+02	2.04E+00	1420
I-129	1	1.04E-01	8.26E-02	1660	1.04E-01	8.28E-02	1660	1.05E-01	8.37E-02	1660
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	1.36E-02	0.00E+00	>10000	1.36E-02	0.00E+00	>10000	1.38E-02	0.00E+00	>10000
U-234	(a)	1.61E+01	0.00E+00	>10000	1.61E+01	0.00E+00	>10000	3.40E+02	0.00E+00	>10000
U-235	(a)	2.56E-01	0.00E+00	>10000	2.57E-01	0.00E+00	>10000	1.46E+01	0.00E+00	>10000
U-236	(a)	3.01E-01	0.00E+00	>10000	3.02E-01	0.00E+00	>10000	3.05E-01	0.00E+00	>10000
U-238	(a)	4.00E+00	0.00E+00	>10000	4.01E+00	0.00E+00	>10000	3.44E+02	0.00E+00	>10000

Table G.33. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
		Inventory (Ci)	**Maximum Concen-tration (pCi/L)**	**Approx. Peak Arrival Time (yrs)**	**Inventory (Ci)**	Maximum Concen-tration **(pCi/L)**	**Approx. Peak Arrival Time (yrs)**	**Inventory (Ci)**	**Maximum Concen-tration (pCi/L)**	**Approx. Peak Arrival Time (yrs)**
Projected Melter Waste										
200 East Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	3.89E+01	2.03E-01	820	3.89E+01	2.03E-01	820	3.89E+01	2.03E-01	820
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	8.49E-01	7.61E-07	10000	8.49E-01	7.61E-07	10000	8.49E-01	7.61E-07	10000
U-234	(a)	4.60E-01	4.12E-07	10000	4.60E-01	4.12E-07	10000	4.60E-01	4.12E-07	10000
U-235	(a)	1.90E-02	1.70E-08	10000	1.90E-02	1.70E-08	10000	1.90E-02	1.70E-08	10000
U-236	(a)	1.70E-02	1.52E-08	10000	1.70E-02	1.52E-08	10000	1.70E-02	1.52E-08	10000
U-238	(a)	4.10E-01	3.67E-07	10000	4.10E-01	3.67E-07	10000	4.10E-01	3.67E-07	10000
200 West Area										
C-14	2000	0.00E+00			0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00			0.00E+00		

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.34. Predicted Peak River Flux of Key Constituents by Waste and Category at a Line of Analysis to the Columbia River, Alternative E_3

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux Ci/yr	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux Ci/yr	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux Ci/yr	Approx. Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	3.33E+00	0.00E+00	>10000	4.06E+00	0.00E+00	>10000	5.21E+00	0.00E+00	>10000
Tc-99	3.00E-01	2.85E-03	2180	3.66E-01	3.48E-03	2180	3.99E-01	3.79E-03	2180
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	2.62E-03	2.49E-05	2180	3.20E-03	3.04E-05	2180	3.20E-03	3.04E-05	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.03E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000	1.25E-01	0.00E+00	>10000
U-234	1.70E-01	0.00E+00	>10000	2.07E-01	0.00E+00	>10000	9.01E-01	0.00E+00	>10000
U-235	3.56E-02	0.00E+00	>10000	4.34E-02	0.00E+00	>10000	8.86E-02	0.00E+00	>10000
U-236	4.03E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000	4.92E-03	0.00E+00	>10000
U-238	4.06E-01	0.00E+00	>10000	4.95E-01	0.00E+00	>10000	1.66E+00	0.00E+00	>10000
1996-2007 Cat 3 LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00	.		0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	1.48E-01	0.00E+00	>10000	1.54E-01	0.00E+00	>10000	3.50E-01	0.00E+00	>10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	7.20E+01	6.01E-03	1840	7.20E+01	6.01E-03	1840	7.20E+01	6.01E-03	1840
I-129	3.39E-07	3.22E-09	2180	3.53E-07	3.35E-09	2180	3.53E-07	3.35E-09	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	9.79E-02	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	2.32E-01	0.00E+00	>10000
U-234	1.24E+02	0.00E+00	>10000	1.29E+02	0.00E+00	>10000	2.94E+02	0.00E+00	>10000
U-235	3.54E+00	0.00E+00	>10000	3.69E+00	0.00E+00	>10000	8.39E+00	0.00E+00	>10000
U-236	1.60E+01	0.00E+00	>10000	1.67E+01	0.00E+00	>10000	3.80E+01	0.00E+00	>10000
U-238	1.99E+02	0.00E+00	>10000	2.07E+02	0.00E+00	>10000	4.72E+02	0.00E+00	>10000

Table G.34. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux Ci/yr	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux Ci/yr	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux Ci/yr	Approx. Peak Arrival Time (yrs)
1996-2007 Mixed LLW									
200 East Area									
C-14	0.00E+00			0.00E+00			1.60E+00	6.81E-07	10000
Tc-99	0.00E+00			0.00E+00			1.43E+00	1.86E-02	1450
Grouted Tc-99	0.00E+00			0.00E+00			1.23E+02	1.14E-02	970
I-129	0.00E+00			0.00E+00			1.68E-02	2.18E-04	1450
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			2.22E-03	1.05E-08	10000
U-234	0.00E+00			0.00E+00			2.25E+02	1.05E-08	10000
U-235	0.00E+00			0.00E+00			9.96E+00	1.06E-03	10000
U-236	0.00E+00			0.00E+00			4.86E-02	4.71E-05	10000
U-238	0.00E+00			0.00E+00			2.33E+02	2.30E-07	10000
200 West Area									
C-14	1.46E+00	0.00E+00	>10000	1.46E+00	0.00E+00	>10000	1.13E+00	0.00E+00	>10000
Tc-99	3.43E+00	3.26E-02	2180	3.44E+00	3.27E-02	2180	2.09E+00	1.99E-02	2180
Grouted Tc-99	4.91E+00	4.10E-04	1840	4.92E+00	4.10E-04	1840	5.96E+01	4.97E-03	1840
I-129	3.50E-02	3.33E-04	2180	3.51E-02	3.34E-04	2180	1.70E-02	1.62E-04	2180
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	4.59E-03	0.00E+00	>10000	4.60E-03	0.00E+00	>10000	2.20E-03	0.00E+00	>10000
U-234	5.44E+00	0.00E+00	>10000	5.45E+00	0.00E+00	>10000	1.09E+02	0.00E+00	>10000
U-235	8.68E-02	0.00E+00	>10000	8.70E-02	0.00E+00	>10000	4.78E+00	0.00E+00	>10000
U-236	1.02E-01	0.00E+00	>10000	1.02E-01	0.00E+00	>10000	4.88E-02	0.00E+00	>10000
U-238	1.36E+00	0.00E+00	>10000	1.36E+00	0.00E+00	>10000	1.12E+02	0.00E+00	>10000
Projected Cat 1 LLW After 2008									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	1.28E+01	8.79E-08	10000	1.56E+01	1.07E-07	10000	1.59E+01	1.09E-07	10000
Tc-99	1.08E+00	1.12E-02	1720	1.32E+00	1.36E-02	1720	1.33E+00	1.37E-02	1720
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	3.01E-03	3.10E-05	1720	3.67E-03	3.79E-05	1720	3.67E-03	3.79E-05	1720
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	3.71E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000	4.52E-01	0.00E+00	>10000
U-234	6.13E-01	0.00E+00	>10000	7.47E-01	0.00E+00	>10000	9.21E-01	0.00E+00	>10000
U-235	1.29E-01	0.00E+00	>10000	1.57E-01	0.00E+00	>10000	1.68E-01	0.00E+00	>10000
U-236	1.46E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000	1.78E-02	0.00E+00	>10000
U-238	1.47E+00	0.00E+00	>10000	1.79E+00	0.00E+00	>10000	2.08E+00	0.00E+00	>10000

Table G.34. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux Ci/yr	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux Ci/yr	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux Ci/yr	Approx. Peak Arrival Time (yrs)
Projected Cat 3 LLW After 2008									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area	0.00E+00								
C-14	4.44E-01	3.05E-09	10000	4.62E-01	3.17E-09	10000	1.45E+02	9.96E-07	10000
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.23E+03	2.67E-01	1510	3.23E+03	2.67E-01	1510	3.23E+03	2.67E-01	1510
I-129	1.96E-06	2.02E-08	1720	2.04E-06	2.10E-08	1720	2.04E-06	2.10E-08	1720
Grouted I-129	5.00E+00	1.31E-04	1510	5.00E+00	1.31E-04	1510	5.00E+00	1.31E-04	1510
U-233	2.98E-01	0.00E+00	>10000	3.10E-01	0.00E+00	>10000	1.80E-01	0.00E+00	>10000
U-234	3.73E+02	0.00E+00	>10000	3.89E+02	0.00E+00	>10000	3.11E+02	0.00E+00	>10000
U-235	1.07E+01	0.00E+00	>10000	1.11E+01	0.00E+00	>10000	1.20E+01	0.00E+00	>10000
U-236	4.82E+01	0.00E+00	>10000	5.02E+01	0.00E+00	>10000	2.89E+01	0.00E+00	>10000
U-238	5.99E+02	0.00E+00	>10000	6.24E+02	0.00E+00	>10000	5.04E+02	0.00E+00	>10000
Projected Mixed LLW After 2008									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		
200 West Area									
C-14	4.32E+00	2.97E-08	10000	4.33E+00	2.97E-08	10000	5.70E+00	3.92E-08	10000
Tc-99	8.34E+00	8.61E-02	1720	8.36E+00	8.62E-02	1720	8.27E+00	8.53E-02	1720
Grouted Tc-99	1.57E+02	1.30E-02	1510	1.57E+02	1.30E-02	1510	3.34E+02	2.77E-02	1510
I-129	1.04E-01	1.07E-03	1720	1.04E-01	1.07E-03	1720	1.05E-01	1.09E-03	1720
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	1.36E-02	0.00E+00	>10000	1.36E-02	0.00E+00	>10000	1.38E-02	0.00E+00	>10000
U-234	1.61E+01	0.00E+00	>10000	1.61E+01	0.00E+00	>10000	3.40E+02	0.00E+00	>10000
U-235	2.56E-01	0.00E+00	>10000	2.57E-01	0.00E+00	>10000	1.46E+01	0.00E+00	>10000
U-236	3.01E-01	0.00E+00	>10000	3.02E-01	0.00E+00	>10000	3.05E-01	0.00E+00	>10000
U-238	4.00E+00	0.00E+00	>10000	4.01E+00	0.00E+00	>10000	3.44E+02	0.00E+00	>10000

Table G.34. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume			Upper Bound Volume		
	Inventory (Ci)	Maximum River Flux Ci/yr	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux Ci/yr	Approx. Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux Ci/yr	Approx. Peak Arrival Time (yrs)
Projected Melter Waste									
200 East Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	3.89E+01	3.19E-03	870	3.89E+01	3.19E-03	870	3.89E+01	3.19E-03	870
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	8.49E-01	1.89E-07	10000	8.49E-01	1.89E-07	10000	8.49E-01	1.89E-07	10000
U-234	4.60E-01	1.03E-07	10000	4.60E-01	1.03E-07	10000	4.60E-01	1.03E-07	10000
U-235	1.90E-02	4.24E-09	10000	1.90E-02	4.24E-09	10000	1.90E-02	4.24E-09	10000
U-236	1.70E-02	3.79E-09	10000	1.70E-02	3.79E-09	10000	1.70E-02	3.79E-09	10000
U-238	4.10E-01	9.14E-08	10000	4.10E-01	9.14E-08	10000	4.10E-01	9.14E-08	10000
200 West Area									
C-14	0.00E+00			0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00			0.00E+00		

Table G.35a. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a 1-km Line of Analysis, No Action Alternative – Lower Bound Waste Volume (Previously Disposed of Wastes)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approximate Peak Arrival Time (yrs)
Pre-1970 LLW				
200 East Area				
C-14	2000	0.00E+00		
Tc-99	900	5.16E-01	1.37E+01	110
Grouted Tc-99	900	0.00E+00		
I-129	1	1.24E-03	3.30E-02	110
Grouted I-129	1	0.00E+00		
U-233	(a)	1.03E+01	3.20E-01	10000
U-234	(a)	3.68E-01	1.14E-02	10000
U-235	(a)	1.12E-02	3.48E-04	10000
U-236	(a)	7.53E-03	2.34E-04	10000
U-238	(a)	2.69E-01	8.35E-03	10000
200 West Area	(a)			
C-14	2000	0.00E+00		
Tc-99	900	1.30E-01	2.70E+00	190
Grouted Tc-99	900	0.00E+00		
I-129	1	1.70E-04	3.54E-03	190
Grouted I-129	1	0.00E+00		
U-233	(a)	0.00E+00		
U-234	(a)	1.45E+00	0.00E+00	>10,000
U-235	(a)	4.38E-02	0.00E+00	>10,000
U-236	(a)	2.95E-02	0.00E+00	>10,000
U-238	(a)	1.06E+00	0.00E+00	>10,000
1970-1987 LLW				
200 East Area				
C-14	2000	2.15E+02	4.84E+00	10000
Tc-99	900	0.00E+00		
Grouted Tc-99	900	0.00E+00		
I-129	1	1.87E-02	5.23E-01	110
Grouted I-129	1	0.00E+00		
U-233	(a)	0.00E+00		
U-234	(a)	3.08E-02	1.89E-03	10000
U-235	(a)	2.61E-03	1.60E-04	10000
U-236	(a)	0.00E+00	0.00E+00	10000
U-238	(a)	6.28E-02	3.85E-03	10000
200 West Area				
C-14	2000	3.92E+02	0.00E+00	>10,000
Tc-99	900	0.00E+00		
Grouted Tc-99	900	0.00E+00		
I-129	1	1.77E-03	3.94E-02	250
Grouted I-129	1	0.00E+00		
U-233	(a)	0.00E+00		
U-234	(a)	3.94E+01	0.00E+00	>10,000
U-235	(a)	3.33E+00	0.00E+00	>10,000
U-236	(a)	0.00E+00	0.00E+00	>10,000
U-238	(a)	2.82E+01	0.00E+00	>10,000

Table G.35a. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approximate Peak Arrival Time (yrs)
1988-1995 LLW				
200 East Area				
C-14	2000	5.11E+00	1.15E-01	10000
Tc-99	900	1.39E-01	3.89E+00	110
Grouted Tc-99	900	0.00E+00		
I-129	1	9.45E-05	2.64E-03	110
Grouted I-129	1	0.00E+00		
U-233	(a)	2.09E-05	1.28E-06	10000
U-234	(a)	1.85E-03	1.13E-04	10000
U-235	(a)	4.29E-04	2.63E-05	10000
U-236	(a)	1.85E-06	1.13E-07	10000
U-238	(a)	1.93E-02	1.18E-03	10000
200 West Area				
C-14	2000	9.29E+00	0.00E+00	>10,000
Tc-99	900	4.71E-01	1.18E+01	210
Grouted Tc-99	900	0.00E+00		
I-129	1	3.06E-02	7.70E-01	210
Grouted I-129	1	0.00E+00		
U-233	(a)	6.54E-02	0.00E+00	>10,000
U-234	(a)	5.77E+00	0.00E+00	>10,000
U-235	(a)	1.34E+00	0.00E+00	>10,000
U-236	(a)	5.77E-03	0.00E+00	>10,000
U-238	(a)	6.03E+01	0.00E+00	>10,000

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.35b. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a Line of Analysis Along the Columbia River, No Action Alternative – Lower Bound Waste Volume (Previously Disposed of Waste)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approximate Peak Arrival Time (yrs)
Pre-1970 LLW				
200 East Area				
C-14	2000	0.00E+00		
Tc-99	900	5.16E-01	1.29E+00	260
Grouted Tc-99	900	0.00E+00		
I-129	1	1.24E-03	3.10E-03	260
Grouted I-129	1	0.00E+00		
U-233	(a)	1.03E+01	1.92E-02	10000
U-234	(a)	3.68E-01	6.87E-04	10000
U-235	(a)	1.12E-02	2.09E-05	10000
U-236	(a)	7.53E-03	1.41E-05	10000
U-238	(a)	2.69E-01	5.02E-04	10000
200 West Area	(a)			
C-14	2000	0.00E+00		
Tc-99	900	1.30E-01	1.69E-01	530
Grouted Tc-99	900	0.00E+00		
I-129	1	1.70E-04	2.21E-04	530
Grouted I-129	1	0.00E+00		
U-233	(a)	0.00E+00		
U-234	(a)	1.45E+00	0.00E+00	>10,000
U-235	(a)	4.38E-02	0.00E+00	>10,000
U-236	(a)	2.95E-02	0.00E+00	>10,000
U-238	(a)	1.06E+00	0.00E+00	>10,000
1970-1987 LLW				
200 East Area				
C-14	2000	2.15E+02	1.58E-01	10000
Tc-99	900	0.00E+00		
Grouted Tc-99	900	0.00E+00		
I-129	1	1.87E-02	4.66E-02	260
Grouted I-129	1	0.00E+00		
U-233	(a)	0.00E+00		
U-234	(a)	3.08E-02	1.12E-04	10000
U-235	(a)	2.61E-03	9.48E-06	10000
U-236	(a)	0.00E+00	0.00E+00	10000
U-238	(a)	6.28E-02	2.28E-04	10000
200 West Area				
C-14	2000	3.92E+02	0.00E+00	>10,000
Tc-99	900	0.00E+00		
Grouted Tc-99	900	0.00E+00		
I-129	1	1.77E-03	2.01E-03	610
Grouted I-129	1	0.00E+00		
U-233	(a)	0.00E+00		
U-234	(a)	3.94E+01	0.00E+00	>10,000
U-235	(a)	3.33E+00	0.00E+00	>10,000
U-236	(a)	0.00E+00	0.00E+00	>10,000
U-238	(a)	2.82E+01	0.00E+00	>10,000

Table G.35b. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approximate Peak Arrival Time (yrs)
1988-1995 LLW				
200 East Area				
C-14	2000	5.11E+00	3.77E-03	10000
Tc-99	900	1.39E-01	3.47E-01	260
Grouted Tc-99	900	0.00E+00		
I-129	1	9.45E-05	2.36E-04	260
Grouted I-129	1	0.00E+00		
U-233	(a)	2.09E-05	7.59E-08	10000
U-234	(a)	1.85E-03	6.72E-06	10000
U-235	(a)	4.29E-04	1.56E-06	10000
U-236	(a)	1.85E-06	6.72E-09	10000
U-238	(a)	1.93E-02	7.01E-05	10000
200 West Area				
C-14	2000	9.29E+00	0.00E+00	>10,000
Tc-99	900	4.71E-01	5.32E-01	600
Grouted Tc-99	900	0.00E+00		
I-129	1	3.06E-02	3.46E-02	600
Grouted I-129	1	0.00E+00		
U-233	(a)	6.54E-02	0.00E+00	>10,000
U-234	(a)	5.77E+00	2.13E-02	>10,000
U-235	(a)	1.34E+00	4.96E-03	>10,000
U-236	(a)	5.77E-03	2.13E-05	>10,000
U-238	(a)	6.03E+01	2.23E-01	>10,000

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.35c. Predicted Peak River Flux of Key Constituents by Waste and Category at a Line of Analysis to the Columbia River, No Action Alternative – Lower Bound Waste Volume (Previously Disposed of Waste)

Constituent	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
Pre-1970 LLW			
200 East Area			
C-14	0.00E+00		
Tc-99	5.16E-01	9.81E-03	290
Grouted Tc-99	0.00E+00		
I-129	1.24E-03	2.36E-05	290
Grouted I-129	0.00E+00		
U-233	1.03E+01	1.54E-04	10000
U-234	3.68E-01	5.50E-06	10000
U-235	1.12E-02	1.67E-07	10000
U-236	7.53E-03	1.13E-07	10000
U-238	2.69E-01	4.02E-06	10000
200 West Area			
C-14	0.00E+00		
Tc-99	1.30E-01	1.68E-03	600
Grouted Tc-99	0.00E+00		
I-129	1.70E-04	2.20E-06	600
Grouted I-129	0.00E+00		
U-233	0.00E+00		
U-234	1.45E+00	0.00E+00	>10,000
U-235	4.38E-02	0.00E+00	>10,000
U-236	2.95E-02	0.00E+00	>10,000
U-238	1.06E+00	0.00E+00	>10,000
1970-1987 LLW			
200 East Area			
C-14	2.15E+02	2.55E-03	10000
Tc-99	0.00E+00		
Grouted Tc-99	0.00E+00		
I-129	1.87E-02	3.54E-04	290
Grouted I-129	0.00E+00		
U-233	0.00E+00		
U-234	3.08E-02	4.71E-07	10000
U-235	2.61E-03	3.99E-08	10000
U-236	0.00E+00	0.00E+00	10000
U-238	6.28E-02	9.60E-07	10000
200 West Area			
C-14	3.92E+02	0.00E+00	>10,000
Tc-99	0.00E+00		
Grouted Tc-99	0.00E+00		
I-129	1.77E-03	2.07E-05	690
Grouted I-129	0.00E+00		
U-233	0.00E+00		
U-234	3.94E+01	0.00E+00	>10,000
U-235	3.33E+00	0.00E+00	>10,000
U-236	0.00E+00	0.00E+00	>10,000
U-238	2.82E+01	0.00E+00	>10,000

Table G.35c. (contd)

Constituent	Inventory (Ci)	Maximum River Flux (Ci/yr)	Approx. Peak Arrival Time (yrs)
1988-1995 LLW			
200 East Area			
C-14	5.11E+00	5.08E-05	10000
Tc-99	1.39E-01	2.63E-03	290
Grouted Tc-99	0.00E+00		
I-129	9.45E-05	1.79E-06	290
Grouted I-129	0.00E+00		
U-233	2.09E-05	4.71E-11	10000
U-234	1.85E-03	4.17E-09	10000
U-235	4.29E-04	9.67E-10	10000
U-236	1.85E-06	4.17E-12	10000
U-238	1.93E-02	4.35E-08	10000
200 West Area			
C-14	9.29E+00	0.00E+00	>10,000
Tc-99	4.71E-01	5.51E-03	670
Grouted Tc-99	0.00E+00		
I-129	3.06E-02	3.58E-04	670
Grouted I-129	0.00E+00		
U-233	6.54E-02	0.00E+00	>10,000
U-234	5.77E+00	2.14E+00	>10,000
U-235	1.34E+00	4.97E-01	>10,000
U-236	5.77E-03	2.14E-03	>10,000
U-238	6.03E+01	2.24E+01	>10,000

Table G.36. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a 1-km Line of Analysis, No Action Alternative

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approximate Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approximate Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW							
200 East Area							
C-14	2000	5.90E-01	1.33E-02	10000	7.20E-01	1.62E-02	10000
Tc-99	900	5.03E-02	1.41E+00	110	6.14E-02	1.72E+00	110
Grouted Tc-99	900	0.00E+00			0.00E+00		
I-129	1	2.03E-04	5.69E-03	110	2.48E-04	6.93E-03	110
Grouted I-129	1	0.00E+00			0.00E+00		
U-233	(a)	1.78E-02	1.09E-03	10000	2.17E-02	1.33E-03	10000
U-234	(a)	2.94E-02	1.80E-03	10000	3.58E-02	2.19E-03	10000
U-235	(a)	6.16E-03	3.77E-04	10000	7.51E-03	4.60E-04	10000
U-236	(a)	6.99E-04	4.29E-05	10000	8.53E-04	5.23E-05	10000
U-238	(a)	7.03E-02	4.31E-03	10000	8.57E-02	5.25E-03	10000
200 West Area	(a)						
C-14	2000	1.53E+01	0.00E+00	>10,000	1.86E+01	0.00E+00	>10,000
Tc-99	900	1.29E+00	2.02E+01	1070	1.57E+00	2.46E+01	1070
Grouted Tc-99	900	0.00E+00			0.00E+00		
I-129	1	5.22E-03	8.18E-02	1070	6.36E-03	9.98E-02	1070
Grouted I-129	1	0.00E+00			0.00E+00		
U-233	(a)	4.55E-01	0.00E+00	>10,000	5.55E-01	0.00E+00	>10,000
U-234	(a)	7.53E-01	0.00E+00	>10,000	9.18E-01	0.00E+00	>10,000
U-235	(a)	1.57E-01	0.00E+00	>10,000	1.92E-01	0.00E+00	>10,000
U-236	(a)	1.79E-02	0.00E+00	>10,000	2.18E-02	0.00E+00	>10,000
U-238	(a)	1.80E+00	0.00E+00	>10,000	2.19E+00	0.00E+00	>10,000
1996-2007 Cat 3 LLW							
200 East Area							
C-14	2000	2.21E-02	4.97E-04	10000	2.30E-02	5.18E-04	10000
Tc-99	900	0.00E+00			0.00E+00		
Grouted Tc-99	900	1.25E+02	5.24E+00	630	1.25E+02	5.24E+00	630
I-129	1	8.62E-08	9.11E-07	630	8.98E-08	9.49E-07	630
Grouted I-129	1	0.00E+00			0.00E+00		
U-233	(a)	1.48E-02	8.04E-04	10000	1.54E-02	8.37E-04	10000
U-234	(a)	1.86E+01	1.01E+00	10000	1.94E+01	1.05E+00	10000
U-235	(a)	5.34E-01	2.90E-02	10000	5.56E-01	3.02E-02	10000
U-236	(a)	2.41E+00	1.31E-01	10000	2.51E+00	1.36E-01	10000
U-238	(a)	3.00E+01	1.63E+00	10000	3.12E+01	1.70E+00	10000
200 West Area							
C-14	2000	5.67E-01	0.00E+00	>10,000	5.91E-01	0.00E+00	>10,000
Tc-99	900	0.00E+00			0.00E+00		
Grouted Tc-99	900	3.18E+03	2.93E+02	1230	3.18E+03	2.93E+02	1230
I-129	1	2.21E-06	3.46E-05	1070	2.30E-06	3.61E-05	1070
Grouted I-129	1	5.00E+00	1.46E-01	1230	5.00E+00	1.46E-01	1230
U-233	(a)	3.79E-01	0.00E+00	>10,000	3.95E-01	0.00E+00	>10,000
U-234	(a)	4.78E+02	0.00E+00	>10,000	4.98E+02	0.00E+00	>10,000
U-235	(a)	1.36E+01	0.00E+00	>10,000	1.42E+01	0.00E+00	>10,000
U-236	(a)	6.17E+01	0.00E+00	>10,000	6.43E+01	0.00E+00	>10,000
U-238	(a)	7.67E+02	0.00E+00	>10,000	7.99E+02	0.00E+00	>10,000

Table G.36. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approximate Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approximate Peak Arrival Time (yrs)
1996-2007 Mixed LLW							
200 East Area							
C-14	2000	0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00		
200 West Area							
C-14	2000	7.52E-01	0.00E+00	>10,000	7.54E-01	0.00E+00	>10,000
Tc-99	900	9.63E-01	1.51E+01	1070	9.65E-01	1.51E+01	1070
Grouted Tc-99	900	3.34E+00	2.39E-01	1200	3.35E+00	2.39E-01	1200
I-129	1	1.81E-02	2.83E-01	1070	1.81E-02	2.84E-01	1070
Grouted I-129	1	0.00E+00			0.00E+00		
U-233	(a)	2.52E-03	0.00E+00	>10,000	2.53E-03	0.00E+00	>10,000
U-234	(a)	2.80E+00	0.00E+00	>10,000	2.81E+00	0.00E+00	>10,000
U-235	(a)	4.45E-02	0.00E+00	>10,000	4.46E-02	0.00E+00	>10,000
U-236	(a)	5.23E-02	0.00E+00	>10,000	5.24E-02	0.00E+00	>10,000
U-238	(a)	6.96E-01	0.00E+00	>10,000	6.97E-01	0.00E+00	>10,000

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.37. Predicted Peak Concentrations of Key Constituents by Waste Type and Category at a Line of Analysis Along the Columbia River, No Action Alternative

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approximate Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approximate Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW							
200 East Area							
C-14	2000	5.90E-01	4.35E-04	10000	7.20E-01	5.31E-04	10000
Tc-99	900	5.03E-02	7.89E-02	800	6.14E-02	9.62E-02	800
Grouted Tc-99	900	0.00E+00			0.00E+00		
I-129	1	2.03E-04	3.19E-04	800	2.48E-04	3.89E-04	800
Grouted I-129	1	0.00E+00			0.00E+00		
U-233	(a)	1.78E-02	6.46E-05	10000	2.17E-02	7.88E-05	10000
U-234	(a)	2.94E-02	1.07E-04	10000	3.58E-02	1.30E-04	10000
U-235	(a)	6.16E-03	2.24E-05	10000	7.51E-03	2.73E-05	10000
U-236	(a)	6.99E-04	2.54E-06	10000	8.53E-04	3.10E-06	10000
U-238	(a)	7.03E-02	2.55E-04	10000	8.57E-02	3.11E-04	10000
200 West Area	(a)						
C-14	2000	1.53E+01	0.00E+00	>10,000	1.86E+01	0.00E+00	>10,000
Tc-99	900	1.29E+00	1.24E+00	1420	1.57E+00	1.51E+00	1420
Grouted Tc-99	900	0.00E+00			0.00E+00		
I-129	1	5.22E-03	5.03E-03	1420	6.36E-03	6.13E-03	1420
Grouted I-129	1	0.00E+00			0.00E+00		
U-233	(a)	4.55E-01	0.00E+00	>10,000	5.55E-01	0.00E+00	>10,000
U-234	(a)	7.53E-01	0.00E+00	>10,000	9.18E-01	0.00E+00	>10,000
U-235	(a)	1.57E-01	0.00E+00	>10,000	1.92E-01	0.00E+00	>10,000
U-236	(a)	1.79E-02	0.00E+00	>10,000	2.18E-02	0.00E+00	>10,000
U-238	(a)	1.80E+00	0.00E+00	>10,000	2.19E+00	0.00E+00	>10,000
1996-2007 Cat 3 LLW							
200 East Area							
C-14	2000	2.21E-02	1.63E-05	10000	2.30E-02	5.31E-04	10000
Tc-99	900	0.00E+00			0.00E+00	9.62E-02	
Grouted Tc-99	900	1.25E+02	1.23E+00	800	1.25E+02		800
I-129	1	8.62E-08	1.35E-07	800	8.98E-08	3.89E-04	800
Grouted I-129	1	0.00E+00			0.00E+00		
U-233	(a)	1.48E-02	3.26E-05	10000	1.54E-02	7.88E-05	10000
U-234	(a)	1.86E+01	4.11E-02	10000	1.94E+01	1.30E-04	10000
U-235	(a)	5.34E-01	1.18E-03	10000	5.56E-01	2.73E-05	10000
U-236	(a)	2.41E+00	5.31E-03	10000	2.51E+00	3.10E-06	10000
U-238	(a)	3.00E+01	6.60E-02	10000	3.12E+01	3.11E-04	10000
200 West Area							
C-14	2000	5.67E-01	0.00E+00	>10,000	5.91E-01	0.00E+00	>10,000
Tc-99	900	0.00E+00			0.00E+00		
Grouted Tc-99	900	3.18E+03	2.04E+01	1710	3.18E+03	2.04E+01	1710
I-129	1	2.21E-06	2.13E-06	1420	2.30E-06	2.22E-06	1420
Grouted I-129	1	5.00E+00	1.01E-02	1710	5.00E+00	1.01E-02	1710
U-233	(a)	3.79E-01	0.00E+00	>10,000	3.95E-01	0.00E+00	>10,000
U-234	(a)	4.78E+02	0.00E+00	>10,000	4.98E+02	0.00E+00	>10,000
U-235	(a)	1.36E+01	0.00E+00	>10,000	1.42E+01	0.00E+00	>10,000
U-236	(a)	6.17E+01	0.00E+00	>10,000	6.43E+01	0.00E+00	>10,000
U-238	(a)	7.67E+02	0.00E+00	>10,000	7.99E+02	0.00E+00	>10,000

Table G.37. (contd)

Constituent	Benchmark Drinking Water Standard (pCi/L)	Hanford Only Volume			Lower Bound Volume		
		Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approximate Peak Arrival Time (yrs)	Inventory (Ci)	Maximum Concen-tration (pCi/L)	Approximate Peak Arrival Time (yrs)
1996-2007 Mixed LLW							
200 East Area							
C-14	2000	0.00E+00			0.00E+00		
Tc-99	900	0.00E+00			0.00E+00		
Grouted Tc-99	900	0.00E+00			0.00E+00		
I-129	1	0.00E+00			0.00E+00		
Grouted I-129	1	0.00E+00			0.00E+00		
U-233	(a)	0.00E+00			0.00E+00		
U-234	(a)	0.00E+00			0.00E+00		
U-235	(a)	0.00E+00			0.00E+00		
U-236	(a)	0.00E+00			0.00E+00		
U-238	(a)	0.00E+00			0.00E+00		
200 West Area							
C-14	2000	7.52E-01	0.00E+00	>10,000	7.54E-01	0.00E+00	>10,000
Tc-99	900	9.63E-01	9.28E-01	1420	9.65E-01	9.30E-01	1420
Grouted Tc-99	900	3.34E+00	2.29E-02	1620	3.35E+00	2.29E-02	1620
I-129	1	1.81E-02	1.74E-02	1420	1.81E-02	1.74E-02	1420
Grouted I-129	1	0.00E+00			0.00E+00		
U-233	(a)	2.52E-03	0.00E+00	>10,000	2.53E-03	0.00E+00	>10,000
U-234	(a)	2.80E+00	0.00E+00	>10,000	2.81E+00	0.00E+00	>10,000
U-235	(a)	4.45E-02	0.00E+00	>10,000	4.46E-02	0.00E+00	>10,000
U-236	(a)	5.23E-02	0.00E+00	>10,000	5.24E-02	0.00E+00	>10,000
U-238	(a)	6.96E-01	0.00E+00	>10,000	6.97E-01	0.00E+00	>10,000

(a) The benchmark groundwater standard for uranium is 30 µg/L expressed as total uranium. To convert isotope specific concentrations from pCi/L to µg/L, use following conversion factors:

- Uranium-233 - 1.05E-04
- Uranium-234 - 1.62E-04
- Uranium-235 - 4.66E-01
- Uranium-236 - 1.58E-02
- Uranium-238 - 3.00E+00.

Table G.38. Predicted Peak River Flux of Key Constituents by Waste Type and Category at a Line of Analysis to the Columbia River, No Action Alternative

Constituent	Hanford Only Volume			Lower Bound Volume		
	Inventory (Ci)	Maximum River Flux (Ci)	Approximate Peak Arrival Time (yrs)	Inventory (Ci)	Maximum River Flux (Ci)	Approximate Peak Arrival Time (yrs)
1996-2007 Cat 1 LLW						
200 East Area						
C-14	5.90E-01	2.34E-06	10000	7.20E-01	2.86E-06	10000
Tc-99	5.03E-02	7.31E-04	850	6.14E-02	8.92E-04	850
Grouted Tc-99	0.00E+00			0.00E+00		
I-129	2.03E-04	2.95E-06	850	2.48E-04	3.60E-06	850
Grouted I-129	0.00E+00			0.00E+00		
U-233	1.78E-02	4.01E-08	10000	2.17E-02	4.89E-08	10000
U-234	2.94E-02	6.62E-08	10000	3.58E-02	8.07E-08	10000
U-235	6.16E-03	1.39E-08	10000	7.51E-03	1.69E-08	10000
U-236	6.99E-04	1.58E-09	10000	8.53E-04	1.92E-09	10000
U-238	7.03E-02	1.58E-07	10000	8.57E-02	1.93E-07	10000
200 West Area						
C-14	1.53E+01	0.00E+00	>10,000	1.86E+01	0.00E+00	>10,000
Tc-99	1.29E+00	1.31E-02	1610	1.57E+00	1.60E-02	1610
Grouted Tc-99	0.00E+00			0.00E+00		
I-129	5.22E-03	5.32E-05	1610	6.36E-03	6.49E-05	1610
Grouted I-129	0.00E+00			0.00E+00		
U-233	4.55E-01	0.00E+00	>10,000	5.55E-01	0.00E+00	>10,000
U-234	7.53E-01	0.00E+00	>10,000	9.18E-01	0.00E+00	>10,000
U-235	1.57E-01	0.00E+00	>10,000	1.92E-01	0.00E+00	>10,000
U-236	1.79E-02	0.00E+00	>10,000	2.18E-02	0.00E+00	>10,000
U-238	1.80E+00	0.00E+00	>10,000	2.19E+00	0.00E+00	>10,000
1996-2007 Cat 3 LLW						
200 East Area						
C-14	2.21E-02	8.77E-08	10000	2.30E-02	9.13E-08	10000
Tc-99	0.00E+00			0.00E+00		
Grouted Tc-99	1.25E+02	1.16E-02	970	1.25E+02	1.16E-02	970
I-129	8.62E-08	1.25E-09	850	8.98E-08	1.30E-09	850
Grouted I-129	0.00E+00			0.00E+00		
U-233	1.48E-02	1.60E-08	10000	1.54E-02	1.66E-08	10000
U-234	1.86E+01	2.01E-05	10000	1.94E+01	2.10E-05	10000
U-235	5.34E-01	5.77E-07	10000	5.56E-01	6.01E-07	10000
U-236	2.41E+00	2.60E-06	10000	2.51E+00	2.71E-06	10000
U-238	3.00E+01	3.24E-05	10000	3.12E+01	3.37E-05	10000
200 West Area						
C-14	5.67E-01	0.00E+00	>10,000	5.91E-01	0.00E+00	>10,000
Tc-99	0.00E+00			0.00E+00		
Grouted Tc-99	3.18E+03	2.65E-01	1840	3.18E+03	2.65E-01	1840
I-129	2.21E-06	2.25E-08	1610	2.30E-06	2.35E-08	1610
Grouted I-129	5.00E+00	1.32E-04	1840	5.00E+00	1.32E-04	1840
U-233	3.79E-01	0.00E+00	>10,000	3.95E-01	0.00E+00	>10,000
U-234	4.78E+02	0.00E+00	>10,000	4.98E+02	0.00E+00	>10,000
U-235	1.36E+01	0.00E+00	>10,000	1.42E+01	0.00E+00	>10,000
U-236	6.17E+01	0.00E+00	>10,000	6.43E+01	0.00E+00	>10,000
U-238	0.00E+00	0.00E+00	>10,000	7.99E+02	0.00E+00	>10,000

Table G.38. (contd)

Constituent	Hanford Only Volume			Lower Bound Volume		
	Inventory (Ci)	**Maximum River Flux (Ci)**	Approximate Peak Arrival Time **(yrs)**	**Inventory (Ci)**	**Maximum River Flux (Ci)**	**Approximate Peak Arrival Time (yrs)**
1996-2007 Mixed LLW						
200 East Area						
C-14	0.00E+00			0.00E+00		
Tc-99	0.00E+00			0.00E+00		
Grouted Tc-99	0.00E+00			0.00E+00		
I-129	0.00E+00			0.00E+00		
Grouted I-129	0.00E+00			0.00E+00		
U-233	0.00E+00			0.00E+00		
U-234	0.00E+00			0.00E+00		
U-235	0.00E+00			0.00E+00		
U-236	0.00E+00			0.00E+00		
U-238	0.00E+00			0.00E+00		
200 West Area						
C-14	7.52E-01	0.00E+00	>10,000	7.54E-01	0.00E+00	>10,000
Tc-99	9.63E-01	9.83E-03	1610	9.65E-01	9.85E-03	1610
Grouted Tc-99	3.34E+00	2.79E-04	1840	3.35E+00	2.79E-04	1840
I-129	1.81E-02	1.84E-04	1610	1.81E-02	1.85E-04	1610
Grouted I-129	0.00E+00			0.00E+00		
U-233	2.52E-03	0.00E+00	>10,000	2.53E-03	0.00E+00	>10,000
U-234	2.80E+00	0.00E+00	>10,000	2.81E+00	0.00E+00	>10,000
U-235	4.45E-02	0.00E+00	>10,000	4.46E-02	0.00E+00	>10,000
U-236	5.23E-02	0.00E+00	>10,000	5.24E-02	0.00E+00	>10,000
U-238	6.96E-01	0.00E+00	>10,000	6.97E-01	0.00E+00	>10,000

G.3 Use of ILAW Performance Assessment Calculations in HSW EIS Long-term Water Quality and Human Health Impacts

Impact results presented for the ILAW disposal facility were based on performance assessment (PA) calculations made for siting the facility in the vicinity of the PUREX Plant, as summarized in Mann et al. (2001). The following section discusses:

- Range of waste form and engineering performance examined to date, as discussed in Mann et al. (2001) including the specific discussion of the case selected for this analysis.
- Additional planned analyses of waste disposal system performance.
- Scaling of ILAW PA results for use in this analysis.