

Table 6-2											
2013 Radioactive Liquid Release Source Term and 12-Month Average Downriver Radionuclide Concentrations Compared to the US EPA's Drinking Water Maximum Contaminant Levels (MCL)											
12-Month Average Concentration (pCi/L)							Output from LADTAP XL v. 2013 (uCi/mL)				
Nuclide	Curies Released	Below SRS ^(a)	BJWSA Chelsea ^(b)	BJWSA Purrysburg ^(b)	Savannah I&D ^(c)	EPA MCL ^(e)		Below SRS ^(a)	BJWSA Chelsea	BJWSA Purrysburg	Savannah I&D
H-3 ^(d)	1.08E+03	5.80E+02	4.60E+02	4.25E+02	4.27E+02	2.00E+04		5.80E-07	4.60E-07	4.25E-07	4.27E-07
C-14	6.13E-03	1.19E-03	9.46E-04	8.74E-04	8.79E-04	2.00E+03		1.19E-12	9.46E-13	8.74E-13	8.79E-13
Sr-90	2.39E-02	4.65E-03	3.69E-03	3.41E-03	3.43E-03	8.00E+00		4.65E-12	3.69E-12	3.41E-12	3.43E-12
Tc-99	1.85E-02	3.60E-03	2.86E-03	2.64E-03	2.65E-03	9.00E+02		3.60E-12	2.86E-12	2.64E-12	2.65E-12
I-129	2.70E-02	5.26E-03	4.17E-03	3.85E-03	3.87E-03	1.00E+00		5.26E-12	4.17E-12	3.85E-12	3.87E-12
Cs-137	3.34E-02	6.50E-03	5.16E-03	4.76E-03	4.79E-03	2.00E+02		6.50E-12	5.16E-12	4.76E-12	4.79E-12
U-234	4.54E-02	8.84E-03	7.01E-03	6.48E-03	6.51E-03	1.03E+01		8.84E-12	7.01E-12	6.48E-12	6.51E-12
U-235	2.63E-03	5.12E-04	4.06E-04	3.75E-04	3.77E-04	4.67E-01		5.12E-13	4.06E-13	3.75E-13	3.77E-13
U-238	5.50E-02	1.07E-02	8.49E-03	7.85E-03	7.88E-03	1.00E+01		1.07E-11	8.49E-12	7.85E-12	7.88E-12
Np-237	5.05E-07	9.83E-08	7.80E-08	7.20E-08	7.24E-08	1.50E+01		9.83E-17	7.80E-17	7.20E-17	7.24E-17
Pu-238	6.27E-04	1.22E-04	9.68E-05	8.94E-05	8.99E-05	1.50E+01		1.22E-13	9.68E-14	8.94E-14	8.99E-14
Pu-239	4.81E-05	9.36E-06	7.43E-06	6.86E-06	6.89E-06	1.50E+01		9.36E-15	7.43E-15	6.86E-15	6.89E-15
Am-241	4.27E-03	8.31E-04	6.59E-04	6.09E-04	6.12E-04	1.50E+01		8.31E-13	6.59E-13	6.09E-13	6.12E-13
Cm-244	2.23E-05	4.34E-06	3.44E-06	3.18E-06	3.20E-06	1.50E+01		4.34E-15	3.44E-15	3.18E-15	3.20E-15
Alpha	5.18E-03	1.01E-03	8.00E-04	7.39E-04	7.42E-04	1.50E+01		1.01E-12	8.00E-13	7.39E-13	7.42E-13
Beta	4.12E-02	8.02E-03	6.36E-03	5.88E-03	5.90E-03	8.00E+00		8.02E-12	6.36E-12	5.88E-12	5.90E-12
a. Near Savannah River Mile 118.8, downriver of SRS at the U.S. Highway 301 bridge											
b. Beaufort-Jasper, South Carolina, drinking water											
c. Port Wentworth, Georgia, drinking water											
d. The Tritium concentrations and source term are based on actual measurements of the Savannah River water at the various locations.											
They include contributions from the VEGP. All other radionuclide concentrations are calculated based on the effective river flow rate.											
e. MCLs for Uranium based on radioisotope specific activity X 30 µg/L X isotopic abundance											