

Table 4-6. Comparison of L-Area effluents with water-quality standards and Savannah River and Steel Creek measurements

Constituent <sup>a</sup>	Water quality/ drinking water standard <sup>b</sup>	Savannah River (3.6 km above SRP) 1982 avg <sup>c</sup>	Projected L-Area effluent <sup>d</sup>	Steel Creek (Road A) 1982 avg <sup>c</sup>	Savannah River (16 km below SRP) 1982 avg <sup>c</sup>
pH (no units)	6.5-8.5 (S)	6.2-7.0	6.4-7.1	6.4-7.8	6.4-7.1
Dissolved oxygen (DO)	>4 (WQS)	9.4	+e	8.6	9.3
Total suspended solids (TSS)	<50 (WQS)	10	17.6	7.8	12
Total dissolved solids (TDS)	<500 (S)	67	+	55	67
Biological oxygen demand (BOD)	--f	1.9	5.1	+	1.9
Chemical oxygen demand (COD)	--	+	20.6	13	+
Ammonia (NH <sub>3</sub> )	--	0.2	0.84	0.02	0.1
Chloride (Cl)	<250 (S)	6.1	6.2	5.6	5.3
Sulfite/sulfate - S (SO <sub>3</sub> /SO <sub>4</sub> )	<250 (S)	7.6	12.1	3.7	7.2
Nitrite/nitrate - N (NO <sub>2</sub> /NO <sub>3</sub> )	<10 (P)	0.52	0.68	0.14	0.51
Total phosphate (PO <sub>4</sub> )	--	0.19	0.19	<0.03	0.18
Surfactants	<0.5 (S)	+	0.09	+	+
Oil and grease	--	+	6.4	+	+
Calcium (Ca)	--	3.8	+	4.9	3.7
Sodium (Na)	--	10	7.4	4.7	9.5
Fluoride (F)	1.4-2.4 (S)	+	+	+	+
Aluminum (Al)	--	1.3	1.4	<0.85	1.0
Iron (Fe)	<0.3 (S)	0.58	0.98	0.43	0.1
Magnesium (Mg)	--	+	0.12	+	+
Molybdenum (Mo)	--	+	0.01	+	+
Manganese (Mn)	<0.05 (S)	+	0.05	+	+
Cadmium (Cd)	<0.01 (P)	+	<0.003	+	+
Chromium (Cr)	<0.05 (P)	+	<0.04	+	+
Copper (Cu)	<1 (S)	+	<0.01	+	+

Table 4-6. Comparison of L-Area effluents with water-quality standards and Savannah River and Steel Creek measurements (continued)

Constituent <sup>a</sup>	Water quality/ drinking water standard <sup>b</sup>	Savannah River (3.6 km above SRP) 1982 avg <sup>c</sup>	Projected L-Area effluent <sup>d</sup>	Steek Creek (Road A) 1982 avg <sup>c</sup>	Savannah River (16 km below SRP) 1982 avg <sup>c</sup>
Lead (Pb)	<0.05 (P)	+	0.001	<0.05	+
Mercury (Hg)	<0.002 (P)	+	2.9 x 10 <sup>-4</sup>	+	+
Nickel (Ni)	<0.13 (WQS)	+	<0.03	+	+
Selenium (Se)	<0.01 (P)	+	0.004	+	+
Silver (Aq)	<0.05 (P)	+	4 x 10 <sup>-4</sup>	+	+
Zinc (Zn)	<5 (S)	+	0.07	+	+
t,i BHC	<9.2 x 10 <sup>-6</sup> (WQS)	+	2.2 x 10 <sup>-7</sup>	+	+
Cyanide (CN)	<0.02 (WQS)	+	<0.02	+	+
Benzene	<0.007 (WQS)	+	<0.002	+	+
Chloroform	<0.002 (WQS)	+	<0.001	+	+
Bis (2 chloro- isopropyl) ether	<34.7 (WQS)	+	0.002	+	+
Heptachlor	<2.8 x 10 <sup>-6</sup> (WQS)	+	4.4 x 10 <sup>-8</sup>	+	+
Total phenol	<3.5 (WQS)	+	<0.002	+	+
Methylene chloride	--	+	<0.001	+	+
Pthalates	<15 (WQS)	+	<0.001	+	+
Tetrachloro- ethylene	<0.0002 (WQS)	+	1.3 x 10 <sup>-5</sup>	+	+
Trichloroethane	<18.4 (WQS)	+	<0.001	+	+
Toluene	<14.3 (WQS)	+	0.001	+	+

<sup>a</sup>All concentrations expressed as milligrams per liter unless otherwise noted. The L-Area effluent, which will be discharged at a rate of about 11 cubic meters per second, will be diluted on reaching the Savannah River, which has a 7-day, 10-year low flow of 159 cubic meters per second and an average flow of 295 cubic meters per second.

<sup>b</sup>(P) = 40 CFR Part 141; (S) = 40 CFR Part 143; (WQS) = Water Quality Standards--Federal Register, Part V, Vol. 45, No. 231, 28 November 1980.

<sup>c</sup>Du Pont (1983c).

<sup>d</sup>Du Pont (1982b).

<sup>e</sup>+ = No data.

<sup>f</sup>-- = No standard.