

Table 4-4. Comparison of liquid effluent water quality with applicable water quality criteria and drinking-water standards and with water quality of Savannah River and Steel Creek<sup>a</sup>

Constituent	Water quality or drinking-water standard <sup>b</sup>	L-Area effluent <sup>c</sup>	Savannah River @ SRP 1980 avg <sup>d</sup>	Steel Creek Road A 1980 avg <sup>e</sup>	Savannah River 3.6 km above SRP 1980 avg <sup>f</sup>	Savannah River 3.6 km above SRP 1960-1969 avg <sup>g</sup>	Savannah River 16 km below SRP 1960-1969 avg <sup>g</sup>
pH (no units)	6.5-8.5 (S) --i	6.4-7.1 --	-- --	7.2 9.4	-- 9.7	7.2 9	7.2 8.5
Dissolved O <sub>2</sub>	--	12	19.5	10.5	12	--	--
TSS	500 (S)	--	--	45	45	42	41
TDS	500 (S)	5	<3	--	2.2	1.5	1.4
BOD	--	32	16.8	10.8	--	--	--
COD	--	<1	<0.6	0.02	0.14	--	--
NH <sub>3</sub>	--	250 (S)	4.6	--	4.1	4.5	2.3
Cl	250 (S)	4.5	<4.6	2.2	5.4	3.6	3.0
SO <sub>3</sub> /SO <sub>4</sub>	250 (S)	0.26	0.19	<0.1	1.4	0.34	0.33
NO <sub>3</sub> /NO <sub>2</sub>	10 (P)	0.004	--	0.03	0.65	0.25	0.3
Total PO <sub>4</sub>	--	0.09	<0.03	--	--	0.04	0.05
Surfactants	0.5 (S)	<10	<8	--	--	--	--
Oil and grease	--	18	32	--	--	--	--
Color (color units)	15(S)(Pt-Cd method)	7.4	5.7	7.3	--	--	--
Ca	--		10	1.9	--	--	--
Na	--		5.7	7.3	--	--	--
F	1.4-2.4 (S)						
Al	--	0.1	1.1	<0.52	0.17	--	--
Fe	0.3 (S)	0.41	2.0	<0.37	0.15	0.55	0.65
Mg	--	0.12	1.6				

a. All concentrations expressed as milligrams/liter unless otherwise noted. The L-Area effluent, which will be discharged at a rate of about 11 m<sup>3</sup>/second, will be diluted on reaching the Savannah River, which has a 7-day, 10-year low flow of 166 m<sup>3</sup>/second near SRP.

b. (P) = 40 CFR 141.

(S) = 40 CFR 143.

(WQS) = Water Quality Standards--Federal Register, Part V, vol. 45, No. 231, 28 Nov., 1980.

c. du Pont, 1982, Tables 5.4-2, 5.4-4, 5.4-5, and 5.4-6.

d. du Pont, 1981b, Savannah River samples collected June 24-25 and September 23-24, 1980.

e. du Pont, 1982, Table 5.4-3.

f. du Pont, 1981c.

g. Marter, 1970.

h. Not detected.

i. Data not available.

Table 4-4. Comparison of liquid effluent water quality with applicable water quality criteria and drinking-water standards and with water quality of Savannah River and Steel Creek<sup>a</sup> (continued)

Constituent	Water quality or drinking-water standard <sup>b</sup>	L-Area effluent <sup>c</sup>	Savannah River @ SRP 1980 avg <sup>d</sup>	Steel Creek Road A 1980 avg <sup>e</sup>	Savannah River above SRP 1980 avg <sup>f</sup>	Savannah River 3.6 km above SRP 1960-1969 avg <sup>g</sup>	Savannah River 16 km below SRP 1960-1969 avg <sup>g</sup>
Mo	-i	0.01	<0.002				
Mn	0.05 (S)	0.05	0.14				
Cd	0.01 (P)	0.003	0.13				
Cr	0.05 (P)	0.04	0.002				
Cu	1 (S)	0.01	<0.012				
Pb	0.05 (P)	0.001	<0.003		<0.05		
Hg	0.002 (P)	0.003	<0.002				
Ni	13.4 (WQS)	0.03	<0.003				
Se	0.01 (P)	0.004	<0.002				
Ag	0.05 (P)	0.0004	<0.0007				
Zn	5 (S)	0.07	<0.027				
a, v BNC	$9.2 \times 10^{-6}$ (WQS)	$4.5 \times 10^{-5}$	ND <sup>h</sup>				
CN	0.002 (WQS)	0.02	<0.015				
Benzene	0.0066 (WQS)	<0.002	<0.001				
Chloroform	0.002 (WQS)	<0.001	<0.001				
Bis (2 chloro-isopropyl) ether	34.7 (WQS)	<0.002	<0.006				
Heptachlor	$2.8 \times 10^{-6}$ (WQS)	$9.1 \times 10^{-6}$	ND <sup>h</sup>				
Total phenol	3.5 (WQS)	<0.001	<0.001				
Methylene chloride	-	<0.001	<0.001				
Pthalates	15 (WQS)	<0.001	<0.001				
Tetrachloroethylene	0.0002	$1.4 \times 10^{-5}$	<0.001				
Trichloroethane	18.4 (WQS)	<0.001	<0.001				
Toluene	14.3 (WQS)	<0.001	<0.006				

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