Appendix B

Georgia Instream Water Quality Standards For All Waters: Toxic Substances

(Excerpt From Georgia Rules and Regulations for Water Quality Control Chapter 391-3-6-.03 Water Use Classifications and Water Quality Standards)

I Instream concentrations of the following chemical constituents which are considered to be other toxic pollutants of concern in the State of Georgia shall not exceed the criteria indicated below under 7-day, 10-year minimum flow (7Q10) or higher stream flow conditions except within established mixing zones:

1. 2,4-Dichlorophenoxyacetic acid (2,4-D) 70 µg/l
2. Methoxychlor* 0.03 µg/l
3. 2,4,5-Trichlorophenoxy propionic acid (TP Silvex) 50 µg/l

II Instream concentrations of the following chemical constituents listed by the U.S. Environmental Protection Agency as toxic priority pollutants pursuant to Section 307(a)(1) of the Federal Clean Water Act (as amended) shall not exceed criteria indicated below under 7-day, 10-year minimum flow (7Q10) or higher stream flow conditions except within established mixing zones or in accordance with site specific effluent limitations developed in accordance with procedures presented in 391-3-6-.06.

1. Arsenic
   (a) Freshwater 50 µg/l
   (b) Coastal and Marine Estuarine Waters 36 µg/l
2. Cadmium
   (a) Freshwater
   (at hardness levels less than 100 mg/l) 0.7 µg/l*
   (at hardness levels of 100 mg/l to 199 mg/l) 1.1 µg/l*
   (at hardness levels greater than or equal to 200 mg/l) 2.0 µg/l*
   Note: Total hardness expressed as $CaCO_3$.
   (b) Coastal and Marine Waters 9.3 µg/l
3. Chlordane*
   (a) Freshwater 0.0043 µg/l
   (b) Coastal and Marine Estuarine Waters 0.004 µg/l
4. Chromium (VI)
   (a) Freshwater 11 µg/l
   (b) Coastal and Marine Estuarine Waters 50 µg/l
5. Total Chromium
   (at hardness levels less than 100 mg/l) 120 µg/l
   (at hardness levels of 100 mg/l to 199 mg/l) 210 µg/l
   (at hardness levels greater than or equal to 200 mg/l) 370 µg/l
   Note: Total hardness expressed as $CaC0_3$.
6. Copper
   (a) Freshwater
   (at hardness levels less than 100 mg/l) 6.5 µg/l*
   (at hardness levels of 100 mg/l to 199 mg/l) 12 µg/l
   (at hardness levels greater than or equal to 200 mg/l) 21 µg/l
   Note: Total hardness expressed as $CaCO_3$.
   (b) Coastal and Marine Estuarine Waters 2.9 µg/l*
7. Cyanide*
   (a) Freshwater 5.2 µg/l
   (b) Coastal and Marine Estuarine Waters 1.0 µg/l
8. Dieldrin* 0.0019 µg/l
9. 4,4'-DDT* 0.001 µg/l
10. a-Endosulfan*
    (a) Freshwater 0.056 µg/l
    (b) Coastal and Marine Estuarine Waters 0.0087 µg/l
11. b-Endosulfan*
    (a) Freshwater 0.056 µg/l
    (b) Coastal and Marine Estuarine Waters 0.0087 µg/l
12. Endrin* 0.002 µg/l
13. Heptachlor*
    (a) Freshwater 0.0038 µg/l
    (b) Coastal and Marine Estuarine Waters 0.0036 µg/l

14. Heptachlor Epoxide*
    (a) Freshwater 0.0038 µg/l
    (b) Coastal and Marine Estuarine Waters 0.0036 µg/l
15. Lead*
    (a) Freshwater
    (at hardness levels less than 100 mg/l) 1.3 µg/l
    (at hardness levels of 100 mg/l to 199 mg/l) 3.2 µg/l
    (at hardness levels greater than or equal to 200 mg/l) 7.7 µg/l
    Note: Total hardness expressed as $CaCO_3$.
    (b) Coastal and Marine Estuarine Waters 5.6 µg/l
16. Lindane [Hexachlorocyclohexane (g-BHC-Gamma)] 0.08 µg/l
17. Mercury*
    (a) Freshwater 0.012 µg/l
    (b) Coastal and Marine Estuarine Waters 0.025 µg/l
18. Nickel
    (a) Freshwater
    (at hardness levels less than 100 mg/l) 88 µg/l
    (at hardness levels of 100 mg/l to 199 mg/l) 160 µg/l
    (at hardness levels greater than or equal to 200 mg/) 280 µg/l
    Note: Total hardness expressed as $CaCO_3$.
    (b) Coastal and Marine Estuarine Waters 8.3 µg/l
19. Pentachlorophenol*
    (a) Freshwater 2.1 µg/l
    (b) Coastal and Marine Estuarine Waters 7.9 µg/l
20. PCB-1016 0.014 µg/l
21. PCB-1221 0.014 µg/l
22. PCB-1232 0.014 µg/l
23. PCB-1242 0.014 µg/l
24. PCB-1248 0.014 µg/l
25. PCB-1254 0.014 µg/l
26. PCB-1260 0.014 µg/l
27. Phenol 300 µg/l
28. Selenium
    (a) Freshwater 5.0 µg/l
    (b) Coastal and Marine Estuarine Waters 71 µg/l
29. Silver **
30. Toxaphene 0.0002 µg/l
31. Zinc
    (a) Freshwater
    (at hardness levels less than 100 mg/l) 60 µg/l
    (at hardness levels of 100 mg/l to 199 mg/l) 110 µg/l
    (at hardness levels greater than or equal to 200 mg/l) 190 µg/l
    Note: Total hardness expressed as $CaCO_3$.
    (b) Coastal and Marine Estuarine Waters 86 µg/l

Notes:

- The in-stream criterion is lower than the EPD laboratory detection limits.

** Numeric limits are not specified. This pollutant is addressed in 391-3-6-.06.

III Instream concentrations of the following chemical constituents listed by the U. S. Environmental Protection Agency as toxic priority pollutants pursuant to Section 307(a)(1) of the Federal Clean Water Act (as amended) shall not exceed criteria indicated below under annual average or higher stream flow conditions:

1. Acenaphthene **
2. Acenaphthylene **
3. Acrolein 780 µg/l
4. Acrylonitrile 0.665 µg/l
5. Aldrin 0.000136 µg/l
6. Anthracene 110000 µg/l
7. Antimony 4308 µg/l
8. Arsenic 0.14 µg/l
9. Benzidine 0.000535 µg/l
10. Benzo(a)Anthracene 0.0311 µg/l
11. Benzo(a)Pyrene 0.0311 µg/l
12. 3,4-Benzofluoranthene 0.0311 µg/l
13. Benzene 71.28 µg/l
14. Benzo(ghi)Perylene **
15. Benzo(k)Fluoranthene 0.0311 µg/l
16. Beryllium **
17. a-BHC-Alpha 0.0131 µg/l
18. b-BHC-Beta 0.046 µg/l
19. Bis(2-Chloroethyl)Ether 1.42 µg/l
20. Bis(2-Chloroisopropyl)Ether 170000 µg/l
21. Bis(2-Ethylhexyl)Phthalate 5.92 µg/l
22. Bromoform (Tribromomethane) 360 µg/l
23. Carbon Tetrachloride 4.42 µg/l
24. Chlorobenzene 21000 µg/l
25. Chlorodibromomethane 34 µg/l
26. 2-Chloroethylvinyl Ether **

27.	Chlordane	0.000588 µg/l
28.	Chloroform (Trichloromethane)	470.8 µg/l
29.	2-Chlorophenol	**
30.	Chrysene	0.0311 µg/l
31.	Dibenzo(a,h)Anthracene	0.0311 µg/l
32.	Dichlorobromomethane	22 µg/l
33.	1,2-Dichloroethane	98.6 µg/l
34.	1,1-Dichloroethylene	3.2 µg/l
35.	1,3-Dichloropropylene (Cis)	1700 µg/l
36.	1,3-Dichloropropylene (Trans)	1700 µg/l
37.	2,4-Dichlorophenol	790 µg/l
38.	1,2-Dichlorobenzene	17000 µg/l
39.	1,3-Dichlorobenzene	2600 µg/l
40.	1,4-Dichlorobenzene	2600 µg/l
41.	3,3'-Dichlorobenzidine	0.077 µg/l
42.	4,4'-DDT	0.00059 µg/l
43.	4,4'-DDD	0.00084 µg/l
44.	4,4'-DDE	0.00059 µg/l
45.	Dieldrin	0.000144 µg/l
46.	Diethyl Phthalate	120000 µg/l
47.	Dimethyl Phthalate	2900000 µg/l
48.	2,4-Dimethylphenol	**
49.	2,4-Dinitrophenol	14264 µg/l
50.	Di-n-Butyl Phthalate	12100 µg/l
51.	2,4-Dinitrotoluene	9.1 µg/l
52.	1,2-Diphenylhydrazine	0.54 µg/l
53.	Endrin Aldehyde	0.81 µg/l
54.	Endosulfan Sulfate	2.0 µg/l
55.	Ethylbenzene	28718 µg/l
56.	Fluoranthene	370 µg/l
57.	Fluorene	14000 µg/l
58.	Heptachlor	0.000214 µg/l
59.	Heptachlor Epoxide	0.00011 µg/l
60.	Hexachlorobenzene	0.00077 µg/l
61.	Hexachlorobutadiene	49.7 µg/l
62.	Hexachlorocyclopentadiene	17000 µg/l
63.	Hexachloroethane	8.85 µg/l
64.	Indeno(1,2,3-cd)Pyrene	0.0311 µg/l
65.	Isophorone	600 µg/l
66.	Lindane [Hexachlorocyclohexane (g-BHC-Gamma)]	0.0625 µg/l
67.	Methyl Bromide (Bromomethane)	4000 µg/l
68.	Methyl Chloride (Chloromethane)	**
69.	Methylene Chloride	†
70.	2-Methyl-4,6-Dinitrophenol	765 µg/l
71.	3-Methyl-4-Chlorophenol	**
72.	Nitrobenzene	1900 µg/l
73.	N-Nitrosodimethylamine	8.12 µg/l
74.	N-Nitrosodi-n-Propylamine	**
75.	N-Nitrosodiphenylamine	16.2 µg/l
76.	PCB-1016	0.00045 µg/l
77.	PCB-1221	0.00045 µg/l
78.	PCB-1232	0.00045 µg/l
79.	PCB-1242	0.00045 µg/l
80.	PCB-1248	0.00045 µg/l
81.	PCB-1254	0.00045 µg/l
82.	PCB-1260	0.00045 µg/l
83.	Phenanthrene	**
84.	Phenol	4,600,000 µg/l
84.	Pyrene	11,000 µg/l
85.	1,1,2,2-Tetrachloroethane	10.8 µg/l
85.	Tetrachloroethylene	8.85 µg/l
87.	Thallium	48 (6.3) µg/l ‡
88.	Toluene	200000 µg/l
89.	1,2-Trans-Dichloroethylene	**
90.	1,1,2-Trichloroethane	41.99 µg/l
91.	Trichloroethylene	80.7 µg/l
92.	2,4,6-Trichlorophenol	6.5 µg/l
93.	1,2,4-Trichlorobenzene	**
94.	Vinyl Chloride	525 µg/l

Notes:

** Numeric limits are not specified. These pollutants are addressed in 391-3-6-.06.

† EPD has proposed to the Board of Natural Resources changing numeric limits for methylene chloride from unspecified to 1600 µg/l consistent with EPA's National Toxics Rule.

‡ EPD has proposed to the Board of Natural Resources changing numeric limits for thallium from 48 to 6.3 µg/l consistent with EPA's National Toxics Rule.

IV Site specific criteria for the following chemical constituents will be developed on an as-needed basis through toxic pollutant monitoring efforts at new or existing discharges that are suspected to be a source of the pollutant at levels sufficient to interfere with designated uses:

1. Asbestos

V Instream concentrations of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) must not exceed 0.0000012 µg/l under long-term average stream flow conditions.

(e) Applicable State and Federal requirements and regulations for the discharge of radioactive substances shall be met at all times.