

**Pt. 132, Tables**

**40 CFR Ch. I (7-1-08 Edition)**

701.9 of Title 6 of the New York State Codes, Rules and Regulations within the Great Lakes System in the State of New York. For purposes of this paragraph, chronic water quality criteria and values for the protection of aquatic life adopted or developed pursuant to §132.4(a) through (c) are the criteria and values adopted or developed by New York State Department of Environmental Conservation (see section 703.5 of Title 6 of the New York State Codes, Rules and Regulations) and approved by EPA under section 303(c) of the Clean Water Act.

(e) Effective November 6, 2000, the criteria for mercury contained in Table 4 of this part shall apply to waters within the Great Lakes System in the State of New York.

(f) Effective December 6, 2000, the acute and chronic aquatic life criteria for copper and nickel in Tables 1 and 2 of this part and the chronic aquatic life criterion for endrin in Table 2 of this part shall apply to the waters of the Great Lakes System in the State of Wisconsin.

(g) Effective February 5, 2001, the chronic aquatic life criterion for selenium in Table 2 of this part shall apply to the waters of the Great Lakes System in the State of Wisconsin.

(h) Effective December 6, 2000, the requirements of procedure 3 in appendix F of this part shall apply for purposes of developing total maximum daily loads in the Great Lakes System in the State of Wisconsin.

(i) Effective December 6, 2000, the requirements of paragraphs D and E of procedure 5 in appendix F of this part shall apply to discharges within the Great Lakes System in the State of Wisconsin.

(j) Effective December 6, 2000, the requirements of paragraph D of procedure 6 in appendix F of this part shall apply to discharges within the Great Lakes System in the State of Wisconsin.

[65 FR 47874, Aug. 4, 2000, as amended at 65 FR 59737, Oct. 6, 2000; 65 FR 66511, Nov. 6, 2000]

**TABLES TO PART 132**

**TABLE 1—ACUTE WATER QUALITY CRITERIA FOR PROTECTION OF AQUATIC LIFE IN AMBIENT WATER**

EPA recommends that metals criteria be expressed as dissolved concentrations (see appendix A, I.A.4 for more information regarding metals criteria).

(a)

Chemical	CMC (µg/L)	Conversion factor (CF)
Arsenic (III) .....	<sup>a,b</sup> 339.8	1.000
Chromium (VI) .....	<sup>a,b</sup> 16.02	0.982
Cyanide .....	<sup>c</sup> 22	n/a
Dieldrin .....	<sup>d</sup> 0.24	n/a
Endrin .....	<sup>d</sup> 0.086	n/a
Lindane .....	<sup>d</sup> 0.95	n/a
Mercury (II) .....	<sup>a,b</sup> 1.694	0.85
Parathion .....	<sup>d</sup> 0.065	n/a

<sup>a</sup> CMC=CMC<sup>r</sup>.  
<sup>b</sup> CMC<sup>d</sup>=(CMC<sup>r</sup>) CF. The CMC<sup>d</sup> shall be rounded to two significant digits.  
<sup>c</sup> CMC should be considered free cyanide as CN.  
<sup>d</sup> CMC=CMC<sup>t</sup>.

Notes:  
 The term "n/a" means not applicable.  
 CMC is Criterion Maximum Concentration.  
 CMC<sup>r</sup> is the CMC expressed as total recoverable.  
 CMC<sup>d</sup> is the CMC expressed as a dissolved concentration.  
 CMC<sup>t</sup> is the CMC expressed as a total concentration.

(b)

Chemical	m <sub>A</sub>	b <sub>A</sub>	Conversion factor (CF)
Cadmium <sup>a,b</sup> .....	1.128	-3.6867	0.85
Chromium (III) <sup>a,b</sup> .....	0.819	+3.7256	0.316
Copper <sup>a,b</sup> .....	0.9422	-1.700	0.960
Nickel <sup>a,b</sup> .....	0.846	+2.255	0.998
Pentachlorophenol <sup>c</sup> .....	1.005	-4.869	n/a
Zinc <sup>a,b</sup> .....	0.8473	+0.884	0.978

<sup>a</sup> CMC<sup>r</sup>=exp {m<sub>A</sub> [ln (hardness)]+b<sub>A</sub>}.  
<sup>b</sup> CMC<sup>d</sup>=(CMC<sup>r</sup>) CF. The CMC<sup>d</sup> shall be rounded to two significant digits.  
<sup>c</sup> CMC<sup>t</sup>=exp m<sub>A</sub> {[pH]+b<sub>A</sub>}. The CMC<sup>t</sup> shall be rounded to two significant digits.

Notes:  
 The term "exp" represents the base e exponential function.  
 The term "n/a" means not applicable.  
 CMC is Criterion Maximum Concentration.  
 CMC<sup>r</sup> is the CMC expressed as total recoverable.  
 CMC<sup>d</sup> is the CMC expressed as a dissolved concentration.  
 CMC<sup>t</sup> is the CMC expressed as a total concentration.

[60 FR 15387, Mar. 23, 1995, as amended at 65 FR 35286, June 2, 2000]

**TABLE 2—CHRONIC WATER QUALITY CRITERIA FOR PROTECTION OF AQUATIC LIFE IN AMBIENT WATER**

EPA recommends that metals criteria be expressed as dissolved concentrations (see appendix A, I.A.4 for more information regarding metals criteria).

(a)

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Chemical	CCC (µg/L)	Conversion factor (CF)
Arsenic (III)	<sup>a,b</sup> 147.9	1.000
Chromium (VI)	<sup>a,b</sup> 10.98	0.962
Cyanide	<sup>c</sup> 5.2	n/a
Dieldrin	<sup>d</sup> 0.056	n/a
Endrin	<sup>d</sup> 0.036	n/a
Mercury (II)	<sup>a,b</sup> 0.9081	0.85
Parathion	<sup>d</sup> 0.013	n/a
Selenium	<sup>a,b</sup> 5	0.922

<sup>a</sup> CCC=CCC<sup>tr</sup>.  
<sup>b</sup> CCC<sup>d</sup>=(CCC<sup>tr</sup>) CF. The CCC<sup>d</sup> shall be rounded to two significant digits.  
<sup>c</sup> CCC should be considered free cyanide as CN.  
<sup>d</sup> CCC=CCC<sup>t</sup>.  
 Notes:  
 The term "n/a" means not applicable.  
 CCC is Criterion Continuous Concentration.  
 CCC<sup>tr</sup> is the CCC expressed as total recoverable.  
 CCC<sup>d</sup> is the CCC expressed as a dissolved concentration.  
 CCC<sup>t</sup> is the CCC expressed as a total concentration.

(b)

Chemical	m <sub>c</sub>	b <sub>c</sub>	Conversion factor (CF)
Cadmium <sup>a,b</sup>	0.7852	-2.715	0.850
Chromium (III) <sup>a,b</sup>	0.819	+0.6848	0.860
Copper <sup>a,b</sup>	0.8545	-1.702	0.960
Nickel <sup>a,b</sup>	0.846	+0.0584	0.997
Pentachlorophenol <sup>c</sup>	1.005	-5.134	n/a
Zinc <sup>a,b</sup>	0.8473	+0.884	0.986

<sup>a</sup> CCC<sup>tr</sup>=exp {m<sub>c</sub>[ln (hardness)]+b<sub>c</sub>}.  
<sup>b</sup> CCC<sup>d</sup>=(CCC<sup>tr</sup>) (CF). The CCC<sup>d</sup> shall be rounded to two significant digits.  
<sup>c</sup> CMC<sup>t</sup>=exp {m<sub>c</sub>[pH]+b<sub>c</sub>}. The CMC<sup>t</sup> shall be rounded to two significant digits.  
 Notes:  
 The term "exp" represents the base e exponential function.  
 The term "n/a" means not applicable.  
 CCC is Criterion Continuous Concentration.  
 CCC<sup>tr</sup> is the CCC expressed as total recoverable.  
 CCC<sup>d</sup> is the CCC expressed as a dissolved concentration.  
 CCC<sup>t</sup> is the CCC expressed as a total concentration.

TABLE 3—WATER QUALITY CRITERIA FOR PROTECTION OF HUMAN HEALTH

Chemical	HNW (µg/L)		HCV (µg/L)	
	Drink-ing	Non-drink-ing	Drink-ing	Non-drink-ing
Benzene	1.9E1	5.1E2	1.2E1	3.1E2
Chlordane	1.4E-3	1.4E-3	2.5E-4	2.5E-4
Chlorobenzene	4.7E2	3.2E3		
Cyanides	6.0E2	4.8E4		
DDT	2.0E-3	2.0E-3	1.5E-4	1.5E-4
Dieldrin	4.1E-4	4.1E-4	6.5E-6	6.5E-6
2,4-Dimethylphenol	4.5E2	8.7E3		
2,4-Dinitrophenol	5.5E1	2.8E3		
Hexachlorobenzene	4.6E-2	4.6E-2	4.5E-4	4.5E-4
Hexachloroethane	6.0	7.6	5.3	6.7
Lindane	4.7E-1	5.0E-1		
Mercury <sup>1</sup>	1.8E-3	1.8E-3		
Methylene chloride	1.6E3	9.0E4	4.7E1	2.6E3
2,3,7,8-TCDD	6.7E-8	6.7E-8	8.6E-9	8.6E-9
Toluene	5.6E3	5.1E4		
Toxaphene			6.8E-5	6.8E-5
Trichloroethylene			2.9E1	3.7E2

<sup>1</sup> Includes methylmercury.

[60 FR 15387, Mar. 23, 1995, as amended at 62 FR 11731, Mar. 12, 1997; 62 FR 52924, Oct. 9, 1997]

TABLE 4—WATER QUALITY CRITERIA FOR PROTECTION OF WILDLIFE

Chemical	Criteria (µg/L)
DDT and metabolites	1.1E-5
Mercury (including methylmercury)	1.3E-3
PCBs (class)	1.2E-4
2,3,7,8-TCDD	3.1E-9

[60 FR 15387, Mar. 23, 1995, as amended at 62 FR 11731, Mar. 12, 1997]

TABLE 5—POLLUTANTS SUBJECT TO FEDERAL, STATE, AND TRIBAL REQUIREMENTS

- Alkalinity
- Ammonia
- Bacteria
- Biochemical oxygen demand (BOD)
- Chlorine
- Color
- Dissolved oxygen
- Dissolved solids
- pH
- Phosphorus
- Salinity
- Temperature
- Total and suspended solids
- Turbidity

TABLE 6—POLLUTANTS OF INITIAL FOCUS IN THE GREAT LAKES WATER QUALITY INITIATIVE

- A. Pollutants that are bioaccumulative chemicals of concern (BCCs):
  - Chlordane
  - 4,4'-DDD; p,p'-DDD; 4,4'-TDE; p,p'-TDE
  - 4,4'-DDE; p,p'-DDE
  - 4,4'-DDT; p,p'-DDT
  - Dieldrin
  - Hexachlorobenzene
  - Hexachlorobutadiene; hexachloro-1, 3-butadiene
  - Hexachlorocyclohexanes; BHCs
  - alpha-Hexachlorocyclohexane; alpha-BHC
  - beta-Hexachlorocyclohexane; beta-BHC
  - delta-Hexachlorocyclohexane; delta-BHC
  - Lindane; gamma-hexachlorocyclohexane; gamma-BHC
  - Mercury
  - Mirex
  - Octachlorostyrene
  - PCBs; polychlorinated biphenyls
  - Pentachlorobenzene
  - Photomirex
  - 2,3,7,8-TCDD; dioxin
  - 1,2,3,4-Tetrachlorobenzene
  - 1,2,4,5-Tetrachlorobenzene Toxaphene
- B. Pollutants that are not bioaccumulative chemicals of concern:
  - Acenaphthene
  - Acenaphthylene
  - Acrolein; 2-propenal

Acrylonitrile	1,2-Diphenylhydrazine
Aldrin	Endosulfan; thiodan
Aluminum	alpha-Endosulfan
Anthracene	beta-Endosulfan
Antimony	Endosulfan sulfate
Arsenic	Endrin
Asbestos	Endrin aldehyde
1,2-Benzanthracene; benz[a]anthracene	Ethylbenzene
Benzene	Fluoranthene
Benzidine	Fluorene; 9H-fluorene
Benzo[a]pyrene; 3,4-benzopyrene	Fluoride
3,4-Benzofluoranthene;	Guthion
benzo[b]fluoranthene	Heptachlor
11,12-Benzofluoranthene;	Heptachlor epoxide
benzo[k]fluoranthene	Hexachlorocyclopentadiene
1,12-Benzoperylene; benzo[ghi]perylene	Hexachloroethane
Beryllium	Indeno[1,2,3-cd]pyrene; 2,3-o-phenylene pyrene
Bis(2-chloroethoxy) methane	Isophorone
Bis(2-chloroethyl) ether	Lead
Bis(2-chloroisopropyl) ether	Malathion
Bromoform; tribromomethane	Methoxychlor
4-Bromophenyl phenyl ether	Methyl bromide; bromomethane
Butyl benzyl phthalate	Methyl chloride; chloromethane
Cadmium	Methylene chloride; dichloromethane
Carbon tetrachloride; tetrachloromethane	Napthalene
Chlorobenzene	Nickel
p-Chloro-m-cresol; 4-chloro-3-methylphenol	Nitrobenzene
Chlorodibromomethane	2-Nitrophenol
Chlorethane	4-Nitrophenol
2-Chloroethyl vinyl ether	N-Nitrosodimethylamine
Chloroform; trichloromethane	N-Nitrosodiphenylamine
2-Chloronaphthalene	N-Nitrosodipropylamine; N-nitrosodi-n-propylamine
2-Chlorophenol	Parathion
4-Chlorophenyl phenyl ether	Pentachlorophenol
Chlorpyrifos	Phenanthrene
Chromium	Phenol
Chrysene	Iron
Copper	Pyrene
Cyanide	Selenium
2,4-D; 2,4-Dichlorophenoxyacetic acid	Silver
DEHP; di(2-ethylhexyl) phthalate	1,1,2,2-Tetrachloroethane
Diazinon	Tetrachloroethylene
1,2,5,6-Dibenzanthracene;	Thallium
dibenz[a,h]anthracene	Toluene; methylbenzene
Dibutyl phthalate; di-n-butyl phthalate	1,2,4-Trichlorobenzene
1,2-Dichlorobenzene	1,1,1-Trichloroethane
1,3-Dichlorobenzene	1,1,2-Trichloroethane
1,4-Dichlorobenzene	Trichloroethylene; trichloroethene
3,3'-Dichlorobenzidine	2,4,6-Trichlorophenol
Dichlorobromomethane;	Vinyl chloride; chloroethylene;
bromodichloromethane	chloroethene
1,1-Dichloroethane	Zinc
1,2-Dichloroethane	
1,1-Dichloroethylene; vinylidene chloride	
1,2-trans-Dichloroethylene	
2,4-Dichlorophenol	
1,2-Dichloropropane	
1,3-Dichloropropene; 1,3-dichloropropylene	
Diethyl phthalate	
2,4-Dimethylphenol; 2,4-xyleneol	
Dimethyl phthalate	
4,6-Dinitro-o-cresol; 2-methyl-4,6-dinitrophenol	
2,4-Dinitrophenol	
2,4-Dinitrotoluene	
2,6-Dinitrotoluene	
Diethyl phthalate; di-n-octyl phthalate	
	APPENDIX A TO PART 132—GREAT LAKES WATER QUALITY INITIATIVE METHODOLOGIES FOR DEVELOPMENT OF AQUATIC LIFE CRITERIA AND VALUES
	METHODOLOGY FOR DERIVING AQUATIC LIFE CRITERIA: TIER I
	Great Lakes States and Tribes shall adopt provisions consistent with (as protective as) this appendix.