

ILLINOIS POLLUTION CONTROL BOARD
February 20, 1997

IN MATTER OF:)
)
TRIENNIAL WATER QUALITY REVIEW:) R94-1(B)
AMENDMENTS TO 35 ILL. ADM. CODE) (Rulemaking - Water)
302.202, 302.212, 302.213, 304.122 and)
304.301)

Adopted Rule. Final Order. Expedited Correction.

OPINION AND ORDER OF THE BOARD (by R.C. Flemal and C. A. Manning):

On December 19, 1996, the Board adopted a final opinion and order in this matter. The adopted rules were published at 21 Illinois Register 364 and 370 on January 3, 1997. At the request of the Joint Committee on Administrative Rules, the Board hereby adopts a corrected order in this matter to correct a typographical error in the Table of Contents of Part 302 and the heading format of Part 304.

Specifically, the Table of Contents of Part 302 did not contain Section 302.209 "Fecal Coliform" and the heading before the Table of Contents of Part 304 was incomplete. Today's order corrects these errors by adding the section and correct heading to the Table of Contents. The December 19, 1996 final opinion of the Board has not been altered.

ORDER

The Board directs that the following amendments be submitted to the Secretary of State for final notice pursuant to Section 5-40 of the Illinois Administrative Code.

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE C: WATER POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD

PART 302
WATER QUALITY STANDARDS

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302.101	Scope and Applicability
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302.104	Main River Temperatures
302.105	Nondegradation

SUBPART B: GENERAL USE WATER
QUALITY STANDARDS

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302.209	Fecal Coliform
302.210	Other Toxic Substances
302.211	Temperature
302.212	Ammonia Nitrogen and Un-ionized Ammonia
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SUBPART C: PUBLIC AND FOOD
PROCESSING WATER SUPPLY STANDARDS

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302.303	Finished Water Standards
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302.404	pH
302.405	Dissolved Oxygen
302.406	Fecal Coliform (Repealed)
302.407	Chemical Constituents
302.408	Temperature
302.409	Cyanide
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SUBPART E: LAKE MICHIGAN WATER

QUALITY STANDARDS

Section	
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302.502	Dissolved Oxygen
302.503	pH
302.504	Chemical Constituents
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302.506	Temperature
302.507	Existing Sources on January 1, 1971
302.508	Sources under Construction But Not in Operation on January 1, 1971
302.509	Other Sources

SUBPART F: PROCEDURES FOR
DETERMINING WATER QUALITY CRITERIA

Section	
302.601	Scope and Applicability
302.603	Definitions
302.604	Mathematical Abbreviations
302.606	Data Requirements
302.612	Determining the Acute Aquatic Toxicity Criterion for an Individual Substance - General Procedures
302.615	Determining the Acute Aquatic Toxicity Criterion - Toxicity Independent of Water Chemistry
302.618	Determining the Acute Aquatic Toxicity Criterion - Toxicity Dependent on Water Chemistry
302.621	Determining the Acute Aquatic Toxicity Criterion - Procedures for Combinations of Substances
302.627	Determining the Chronic Aquatic Toxicity Criterion for an Individual Substance - General Procedures
302.630	Determining the Chronic Aquatic Toxicity Criterion - Procedure for Combination of Substances
302.633	The Wild and Domestic Animal Protection Criterion
302.642	The Human Threshold Criterion
302.645	Determining the Acceptable Daily Intake
302.648	Determining the Human Threshold Criterion
302.651	The Human Nonthreshold Criterion
302.654	Determining the Risk Associated Intake
302.657	Determining the Human Nonthreshold Criterion
302.658	Stream Flow for Application of Human Nonthreshold Criterion
302.660	Bioconcentration Factor
302.663	Determination of Bioconcentration Factor
302.666	Utilizing the Bioconcentration Factor
302.669	Listing of Derived Criteria

Appendix A References to Previous Rules

Appendix B Sources of Codified Sections

AUTHORITY: Implementing Section 13 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/13 and 27].

SOURCE: Filed with the Secretary of State January 1, 1978; amended at 2 Ill. Reg. 44, p. 151, effective November 2, 1978; amended at 3 Ill. Reg. 20, p. 95, effective May 17, 1979; amended at 3 Ill. Reg. 25, p. 190, effective June 21, 1979; codified at 6 Ill. Reg. 7818, amended at 6 Ill. Reg. 11161, effective September 7, 1982; amended at 6 Ill. Reg. 13750, effective October 26, 1982; peremptory amendments at 10 Ill. Reg. 461, effective December 23, 1985; amended in R87-27 at 12 Ill. Reg. 9911, effective May 27, 1988; amended in R85-29 at 12 Ill. Reg. 12082, effective July 11, 1988; amended in R88-1 at 13 Ill. Reg. 5998, effective April 18, 1989; amended in R88-21(A) at 14 Ill. Reg. 2899, effective February 13, 1990; amended in R88-21(B) at 14 Ill. Reg. 11974, effective July 9, 1990; amended in R94-1(A) at 20 Ill. Reg. 7682, effective May 24, 1996; amended in R94-1(B) at 21 Ill. Reg. 370, effective December 23, 1996; expedited correction at 21 Ill. Reg. _____, effective _____.

BOARD NOTE: This Part implements the Illinois Environmental Protection Act as of July 1, 1994.

Section 302.202 Purpose

The General Use standards will protect the State's water for aquatic life (except as provided in Section 302.213), wildlife, agricultural use, secondary contact use and most industrial uses and ensure the aesthetic quality of the State's aquatic environment. Primary contact uses are protected for all General Use waters whose physical configuration permits such use.

(Source: Amended at 21 Ill. Reg. 370, effective December 23, 1996)

Section 302.212 Total Ammonia Nitrogen and Un-ionized Ammonia

- a) Total ammonia nitrogen (as N: STORET Number 00610) shall in no case exceed 15 mg/L.
- b) Un-ionized ammonia nitrogen (as N: STORET Number 00612) shall not exceed the acute and chronic standards given below subject to the provisions of Section 302.208(a) and (b), and Section 302.213 of this Part.
 - 1) From April through October, the Acute Standard (AS) shall be 0.33 mg/L and the Chronic Standard (CS) shall be 0.057 mg/L.

- 2) From November through March, the AS shall be 0.14 mg/L and the CS shall be 0.025 mg/L.
- c) For purposes of this Section, the concentration of un-ionized ammonia nitrogen as N and total ammonia nitrogen as N shall be computed according to the following equations:

$$U = \frac{N}{[0.94412(1 + 10^X) + 0.0559]}$$

$$\text{and } N = U [0.94412(1 + 10^X) + 0.0559]$$

$$\text{where: } X = 0.09018 + \frac{2729.92}{(T + 273.16)} - \text{pH}$$

U = Concentration of un-ionized ammonia as N in mg/L

N = Concentration of ammonia nitrogen as N in mg/L

T = Temperature in degrees Celsius

- d) The following tables indicates the maximum total ammonia nitrogen concentrations (mg/L as N) allowable pursuant to subsections (a) and (b) of this Section for certain combinations of pH and temperature:

1) Summer (April through October) Acute un-ionized ammonia 0.33 mg/L

	pH		6.5	7.0	7.5	7.75	8.0	8.25	8.5	9.0
	^{°F}	^{°C}								
55	12.8		15.0	15.0	15.0	15.0	13.8	7.9	4.6	1.7
60	15.6		15.0	15.0	15.0	15.0	11.2	6.5	3.8	1.4
65	18.3		15.0	15.0	15.0	15.0	9.8	5.3	3.1	1.2
70	21.1		15.0	15.0	15.0	13.2	7.6	4.4	2.6	1.1
75	23.9		15.0	15.0	15.0	10.9	6.3	3.7	2.2	0.9
80	26.7		15.0	15.0	15.0	9.0	5.2	3.1	1.9	0.8
85	29.4		15.0	15.0	13.1	7.5	4.4	2.6	1.6	0.7
90	32.2		15.0	15.0	10.9	6.3	3.7	2.2	1.4	0.7

2) Summer (April through October) Chronic un-ionized ammonia 0.057 mg/L

	pH		6.5	7.0	7.5	7.75	8.0	8.25	8.5	9.0
	^{°F}	^{°C}								
55	12.8		15.0	15.0	7.4	4.2	2.4	1.4	0.8	0.3
60	15.6		15.0	15.0	7.0	3.4	1.9	1.1	0.7	0.2
65	18.3		15.0	15.0	4.9	2.8	1.6	0.9	0.5	0.2
70	21.1		15.0	12.6	4.0	2.3	1.3	0.8	0.5	0.2
75	23.9		15.0	10.3	3.3	1.9	1.1	0.6	0.4	0.2
80	26.7		15.0	8.6	2.7	1.6	0.9	0.5	0.3	0.1
85	29.4		15.0	7.8	2.3	1.3	0.8	0.4	0.3	0.1
90	32.2		15.0	5.8	1.9	1.1	0.6	0.4	0.2	0.1

3) Winter (November through March) Acute un-ionized ammonia 0.14 mg/L

	pH		6.5	7.0	7.5	7.75	8.0	8.25	8.5	9.0
	^{°F}	^{°C}								
32	0.0		15.0	15.0	15.0	15.0	15.0	9.2	5.2	1.7
35	1.7		15.0	15.0	15.0	15.0	14.1	8.0	4.5	1.5
40	4.4		15.0	15.0	15.0	15.0	11.3	6.4	3.7	1.3
45	7.2		15.0	15.0	15.0	15.0	9.0	5.1	2.9	1.0
50	10.0		15.0	15.0	15.0	12.8	7.3	4.1	2.4	0.9
55	12.8		15.0	15.0	15.0	10.3	5.9	3.4	2.0	0.7
60	15.6		15.0	15.0	14.8	8.4	4.8	2.7	1.6	0.6

4) Winter (November through March) Chronic un-ionized ammonia 0.025mg/L

	pH		6.5	7.0	7.5	7.75	8.0	8.25	8.5	9.0
	^{°F}	^{°C}								
32	0.0		15.0	15.0	9.1	5.1	2.9	1.6	0.9	0.3
35	1.7		15.0	15.0	7.9	4.4	2.5	1.4	0.8	0.3
40	4.4		15.0	15.0	6.3	3.6	2.0	1.1	0.7	0.2
45	7.2		15.0	15.0	5.0	2.8	1.6	0.9	0.5	0.2
50	10.0		15.0	12.7	4.0	2.3	1.3	0.7	0.4	0.2
55	12.8		15.0	10.2	3.3	1.8	1.0	0.6	0.3	0.1
60	15.6		15.0	8.3	2.6	1.5	0.9	0.5	0.3	0.1

(Source: Amended at 21 Ill. Reg. 370, effective December 23, 1996)

Section 302.213 Effluent Modified Waters (Ammonia)

- a) Effluent modified waters are those waters or portions of waters that the Agency has determined, pursuant to 35 Ill. Adm. Code 309: Subpart A, to have the potential to exceed, and are therefore not subject to, the chronic ammonia standards of Section 302.212(b) downstream of an effluent outfall and outside of

any allowable mixing zone. The Agency shall not identify a waterbody as an effluent modified water if it:

- 1) has uses known to be adversely impacted by ammonia as designated under 35 Ill. Adm. Code 303.201 outside of any allowable mixing zone; or
 - 2) exceeds the acute standard of Section 302.212(b) of this Part.
- b) All effluent discharges to an effluent modified water must meet the requirements of 35 Ill. Adm. Code 304.122(d) prior to dilution with the receiving water.

(Source: Added at 21 Ill. Reg. 370, effective December 23, 1996)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE C: WATER POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD

PART 304
EFFLUENT STANDARDS

SUBPART A: GENERAL EFFLUENT STANDARDS

Section	
304.101	Preamble
304.102	Dilution
304.103	Background Concentrations
304.104	Averaging
304.105	Violation of Water Quality Standards
304.106	Offensive Discharges
304.120	Deoxygenating Wastes
304.121	Bacteria
304.122	Total Ammonia Nitrogen (as N: STORET number 00610)
304.123	Phosphorus (STORET number 00665)
304.124	Additional Contaminants
304.125	pH
304.126	Mercury
304.140	Delays in Upgrading (Repealed)
304.141	NPDES Effluent Standards
304.142	New Source Performance Standards (Repealed)

SUBPART B: SITE SPECIFIC RULES AND
EXCEPTIONS NOT OF GENERAL APPLICABILITY

Section

- 304.201 Wastewater Treatment Plant Discharges of the Metropolitan Sanitary District of Greater Chicago
- 304.202 Chlor-alkali Mercury Discharges in St. Clair County
- 304.203 Copper Discharges by Olin Corporation
- 304.204 Schoenberger Creek: Groundwater Discharges
- 304.205 John Deere Foundry Discharges
- 304.206 Alton Water Company Treatment Plant Discharges
- 304.207 Galesburg Sanitary District Deoxygenating Wastes Discharges
- 304.208 City of Lockport Treatment Plant Discharges
- 304.209 Wood River Station Total Suspended Solids Discharges
- 304.210 Alton Wastewater Treatment Plant Discharges
- 304.211 Discharges From Borden Chemicals and Plastics Operating Limited Partnership Into an Unnamed Tributary of Long Point Slough
- 304.212 Sanitary District of Decatur Discharges
- 304.213 UNO-VEN Refinery Ammonia Discharge
- 304.214 Mobil Oil Refinery Ammonia Discharge
- 304.215 City of Tuscola Wastewater Treatment Facility Discharges
- 304.216 Newton Station Suspended Solids Discharges
- 304.218 City of Pana Phosphorus Discharge
- 304.219 North Shore Sanitary District phosphorus Discharges
- 304.220 East St. Louis Treatment Facility, Illinois-American Water Company
- 304.221 Ringwood Drive Manufacturing Facility in McHenry County
- 304.222 Intermittent Discharge of TRC

SUBPART C: TEMPORARY EFFLUENT STANDARDS

Section

- 304.301 Exception for Ammonia Nitrogen Water Quality Violations (Repealed)
- 304.302 City of Joliet East Side Wastewater Treatment Plant
- 304.303 Amerock Corporation, Rockford Facility

Appendix A References to Previous Rules

AUTHORITY: Implementing Section 13 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/13 and 27].

SOURCE: Filed with the Secretary of State January 1, 1978; amended at 2 Ill. Reg. 30, p. 343, effective July 27, 1978; amended at 2 Ill. Reg. 44, p. 151, effective November 2, 1978; amended at 3 Ill. Reg. 20, p. 95, effective May 17, 1979; amended at 3 Ill. Reg. 25, p. 190, effective June 21, 1979; amended at 4 Ill. Reg. 20, p. 53 effective May 7, 1980; amended at 6 Ill. Reg. 563, effective December 24, 1981; codified at 6 Ill. Reg. 7818; amended at 6 Ill. Reg. 11161, effective September 7, 1982; amended at 6 Ill. Reg. 13750, effective October 26, 1982; amended at 7 Ill. Reg. 3020, effective March 4, 1983; amended at 7 Ill. Reg. 8111, effective June 23, 1983; amended at 7 Ill. Reg. 14515, effective October 14, 1983; amended at 7 Ill. Reg. 14910, effective November 14, 1983; amended at 8 Ill. Reg. 1600, effective

January 18, 1984; amended at 8 Ill. Reg. 3687, effective March 14, 1984; amended at 8 Ill. Reg. 8237, effective June 8, 1984; amended at 9 Ill. Reg. 1379, effective January 21, 1985; amended at 9 Ill. Reg. 4510, effective March 22, 1985; preemptory amendment at 10 Ill. Reg. 456, effective December 23, 1985; amended at 11 Ill. Reg. 3117, effective January 28, 1987; amended in R84-13 at 11 Ill. Reg. 7291 effective April 3, 1987; amended in R86-17(A) at 11 Ill. Reg. 14748, effective August 24, 1987; amended in R84-16 at 12 Ill. Reg. 2445, effective January 15, 1988; amended in R83-23 at 12 Ill. Reg. 8658, effective May 10, 1988; amended in R87-27 at 12 Ill. Reg. 9905, effective May 27, 1988; amended in R82-7 at 12 Ill. Reg. 10712, effective June 9, 1988; amended in R85-29 at 12 Ill. Reg. 12064, effective July 12, 1988; amended in R87-22 at 12 Ill. Reg. 13966, effective August 23, 1988; amended in R86-3 at 12 Ill. Reg. 20126, effective November 16, 1988; amended in R84-20 at 13 Ill. Reg. 851, effective January 9, 1989; amended in R85-11 at 13 Ill. Reg. 2060, effective February 6, 1989; amended in R88-1 at 13 Ill. Reg. 5976, effective April 18, 1989; amended in R86-17B at 13 Ill. Reg. 7754, effective May 4, 1989; amended in R88-22 at 13 Ill. Reg. 8880, effective May 26, 1989; amended in R87-6 at 14 Ill. Reg. 6777, effective April 24, 1990; amended in R87-36 at 14 Ill. Reg. 9437, effective May 31, 1990; amended in R 88-21(B) at 14 Ill. Reg. 12538, effective July 18, 1990; amended in R84-44 at 14 Ill. Reg. 20719, effective December 11, 1990; amended in R86-14 at 15 Ill. Reg. 241, effective December 18, 1990; amended in R93-8 at 18 Ill. Reg. 11574, effective July 7, 1994; amended in R87-33 at 18 Ill. Reg. 11574, effective July 7, 1994; amended in R95-14 at 20 Ill. Reg. 3528, effective February 8, 1996; amended in R94-1(B) at 21 Ill. Reg. 364, effective December 23, 1996; expedited correction at 21 Ill. Reg. _____, effective_____.

BOARD NOTE: This Part implements the Illinois Environmental Protection Act as of July 1, 1994.

Section 304.122 Total Ammonia Nitrogen (as N: STORET number 00610)

- a) No effluent from any source which discharges to the Illinois River, the Des Plaines River downstream of its confluence with the Chicago River System or the Calumet River System, and whose untreated waste load is 50,000 or more population equivalents shall contain more than 2.5 mg/L of total ammonia nitrogen as N during the months of April through October, or 4 mg/L at other times.
- b) Sources discharging to any of the above waters and whose untreated waste load cannot be computed on a population equivalent basis comparable to that used for municipal waste treatment plants and whose total ammonia nitrogen as N discharge exceeds 45.4 kg/day (100 pounds per day) shall not discharge an effluent of more than 3.0 mg/L of total ammonia nitrogen as N.
- c) In addition to the effluent standards set forth in subsections (a) and (b) of this Section, all sources are subject to Section 304.105 unless the Agency determines as part of the NPDES Permit Program under 35 Ill. Adm. Code 309: Subpart A

that alternate effluent standards are applicable pursuant to subsection (d) of this Section.

- d) All dischargers to effluent modified waters as defined at 35 Ill. Adm. Code 302.213, except for treatment works qualifying under Section 304.120(c), shall have an effective NPDES permit with monthly average effluent limits of 1.5 mg/L total ammonia as N during the months of April through October, and 4.0 mg/L total ammonia as N at other times, as well as the following restrictions:
- 1) Dischargers achieving lower ammonia concentrations than given above, yet not meeting the chronic water quality standards of 35 Ill. Adm. Code 302.212(b), shall maintain their existing level of performance consistent with the facility's expected organic and hydraulic loadings for the duration of their NPDES permit.
 - 2) New or expanded discharges that increase ammonia loading to general use waters and/or create effluent modified waters or portions of waters must demonstrate compliance to the Agency with the nondegradation requirements at 35 Ill. Adm. Code 302.105.

(Source: Amended at 21 Ill. Reg. 364, effective December 23, 1996)

SUBPART C: TEMPORARY EFFLUENT STANDARDS

Section 304.301 Exception for Ammonia Nitrogen Water Quality Violations (Repealed)

(Source: Repealed at 21 Ill. Reg. 364, effective December 23, 1996)

IT IS SO ORDERED.

Board Member K.M. Hennessey abstained.

Section 41 of the Environmental Protection Act (415 ILCS 5/41 (1994)) provides for the appeal of final Board orders to the Illinois Appellate Court within 35 days of the date of service of this order. The Rules of the Supreme Court of Illinois establish filing requirements. (See also 35 Ill. Adm. Code 101.246 "Motions for Reconsideration.")

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above order was adopted on the _____ day of _____, 1997, by a vote of _____.

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board