

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- 1) Heading of the Part: Water Quality Standards
- 2) Code citation: 35 Ill. Adm. Code 302
- 3)

<u>Section Numbers:</u>	<u>Proposed Action:</u>
302.207	Amend
302.525	Amend
- 4) Statutory authority: Implementing Section 13 and authorized by Sections 11(b) and 27 of the Environmental Protection Act [415 ILCS 5/13, 11(b), and 27]
- 5) A complete description of the subjects and issues involved: A more detailed discussion of the amendments in this rulemaking can be found in the Board's April 7, 2005 opinion and order in Revisions to Radium Water Quality Standards: Proposed New 35 Ill. Adm. Code 302.307 and Amendments to 35 Ill. Adm. Code 302.207 and 302.525 (R04-21). The Board's amendments to the water quality standards propose a general use water quality standard of 3.75 pCi/L combined radium 226 and 228 to replace the existing radium 226 standard of 1 pCi/L. This standard, like the current one, will apply to all general use waters of the State, as well as the Lake Michigan Basin. The proposal also applies a combined radium standard of 30 pCi/L to stream segments that receive discharge from Publicly Owned Treatment Works (POTWs) receiving wastewater discharge from public drinking water supplies using groundwater with a high radium concentration. The 30 pCi/L combined radium 226 and 228 standard will apply from the point of discharge to one mile downstream of the discharge outfall.

This is the second first-notice publication in this rulemaking. The Board found that the record in this rulemaking developed during the original first-notice period supported significant changes to the original proposal. The Board's original rulemaking in this matter proposed eliminating the general use and Lake Michigan water quality standards for radium of 1 picocurie per liter (pCi/L) radium 226 and setting a new standard of 5 pCi/L combined radium 226 and 228, applicable only to surface waters used for public and food processing water supplies. Because the Board made substantial changes to the original proposal, it withdrew those amendments (see Notice of Withdrawal of Amendments in the April 22, 2005 issue of the *Illinois Register*).
- 6) Will this rulemaking replace an emergency rulemaking currently in effect? No
- 7) Does this rulemaking contain an automatic repeal date? No

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- 8) Does this rulemaking contain incorporations by reference? No
- 9) Are there any other amendments pending on this Part? No
- 10) Statement of Statewide Policy Objective: The proposed amendments do not create or expand a State mandate as defined in Section 3 of the State Mandates Act [30 ILCS 805].
- 11) Time, place and manner in which interested persons may comment on this proposed rulemaking: The Board will accept written public comment on this proposal for a period of at least 45 days after the date of this publication. Comments should reference Docket R04-21 and be addressed to:

Ms. Dorothy M. Gunn, Clerk
Illinois Pollution Control Board
State of Illinois Center, Suite 11-500
100 W. Randolph St.
Chicago, IL 60601

Address all questions to Amy Antonioli, at 312-814-3665 or antonioa@ipcb.state.il.us.

Request copies of the Board's opinion and order in Docket R04-21 from Dorothy M. Gunn, at 312-814-3620, or download copies from the Board's Web site at www.ipcb.state.il.us.

- 12) Initial regulatory flexibility analysis:
- A) Types of small businesses, small municipalities, and not-for-profit corporations affected: This proposal will have an impact on POTWs, public drinking water supplies, and the people who drink the water they furnish.
- B) Reporting, bookkeeping or other procedures required for compliance: None
- C) Types of professional skills necessary for compliance: None
- 13) Regulatory Agenda on which this rulemaking was summarized: January 2004

The full text of the Proposed Amendments begins on the next page:

1ST NOTICE VERSION

JCAR350302-0505873r01

1 TITLE 35: ENVIRONMENTAL PROTECTION
2 SUBTITLE C: WATER POLLUTION
3 CHAPTER I: POLLUTION CONTROL BOARD
4

5 PART 302
6 WATER QUALITY STANDARDS
7

8 SUBPART A: GENERAL WATER QUALITY PROVISIONS
9

10	Section	
11	302.100	Definitions
12	302.101	Scope and Applicability
13	302.102	Allowed Mixing, Mixing Zones and ZIDs
14	302.103	Stream Flows
15	302.104	Main River Temperatures
16	302.105	Antidegradation

17
18 SUBPART B: GENERAL USE WATER QUALITY STANDARDS
19

20	Section	
21	302.201	Scope and Applicability
22	302.202	Purpose
23	302.203	Offensive Conditions
24	302.204	pH
25	302.205	Phosphorus
26	302.206	Dissolved Oxygen
27	302.207	Radioactivity
28	302.208	Numeric Standards for Chemical Constituents
29	302.209	Fecal Coliform
30	302.210	Other Toxic Substances
31	302.211	Temperature
32	302.212	Total Ammonia Nitrogen
33	302.213	Effluent Modified Waters (Ammonia) (Repealed)

34
35 SUBPART C: PUBLIC AND FOOD PROCESSING WATER SUPPLY STANDARDS
36

37	Section	
38	302.301	Scope and Applicability
39	302.302	Algicide Permits
40	302.303	Finished Water Standards
41	302.304	Chemical Constituents
42	302.305	Other Contaminants
43	302.306	Fecal Coliform

- 87 302.555 Determining the Tier I Lake Michigan Acute Aquatic Toxicity Criterion (LMAATC): Independent of Water Chemistry
- 88
- 89 302.560 Determining the Tier I Lake Michigan Basin Acute Aquatic Life Toxicity Criterion (LMAATC): Dependent on Water Chemistry
- 90
- 91 302.563 Determining the Tier II Lake Michigan Basin Acute Aquatic Life Toxicity Value (LMAATV)
- 92
- 93 302.565 Determining the Lake Michigan Basin Chronic Aquatic Life Toxicity Criterion (LMCATC) or the Lake Michigan Basin Chronic Aquatic Life Toxicity Value (LMCATV)
- 94
- 95
- 96 302.570 Procedures for Deriving Bioaccumulation Factors for the Lake Michigan Basin
- 97 302.575 Procedures for Deriving Tier I Water Quality Criteria and Values in the Lake Michigan Basin to Protect Wildlife
- 98
- 99 302.580 Procedures for Deriving Water Quality Criteria and Values in the Lake Michigan Basin to Protect Human Health – General
- 100
- 101 302.585 Procedures for Determining the Lake Michigan Basin Human Health Threshold Criterion (LMHHTC) and the Lake Michigan Basin Human Health Threshold Value (LMHHTV)
- 102
- 103
- 104 302.590 Procedures for Determining the Lake Michigan Basin Human Health Nonthreshold Criterion (LMHHNC) or the Lake Michigan Basin Human Health Nonthreshold Value (LMHHNV)
- 105
- 106
- 107 302.595 Listing of Bioaccumulative Chemicals of Concern, Derived Criteria and Values
- 108

SUBPART F: PROCEDURES FOR DETERMINING WATER QUALITY CRITERIA

- 109
- 110
- 111 Section
- 112 302.601 Scope and Applicability
- 113 302.603 Definitions
- 114 302.604 Mathematical Abbreviations
- 115 302.606 Data Requirements
- 116 302.612 Determining the Acute Aquatic Toxicity Criterion for an Individual Substance – General Procedures
- 117
- 118 302.615 Determining the Acute Aquatic Toxicity Criterion – Toxicity Independent of Water Chemistry
- 119
- 120 302.618 Determining the Acute Aquatic Toxicity Criterion – Toxicity Dependent on Water Chemistry
- 121
- 122 302.621 Determining the Acute Aquatic Toxicity Criterion – Procedure for Combinations of Substances
- 123
- 124 302.627 Determining the Chronic Aquatic Toxicity Criterion for an Individual Substance – General Procedures
- 125
- 126 302.630 Determining the Chronic Aquatic Toxicity Criterion – Procedure for Combinations of Substances
- 127
- 128 302.633 The Wild and Domestic Animal Protection Criterion
- 129 302.642 The Human Threshold Criterion

130 302.645 Determining the Acceptable Daily Intake
 131 302.648 Determining the Human Threshold Criterion
 132 302.651 The Human Nonthreshold Criterion
 133 302.654 Determining the Risk Associated Intake
 134 302.657 Determining the Human Nonthreshold Criterion
 135 302.658 Stream Flow for Application of Human Nonthreshold Criterion
 136 302.660 Bioconcentration Factor
 137 302.663 Determination of Bioconcentration Factor
 138 302.666 Utilizing the Bioconcentration Factor
 139 302.669 Listing of Derived Criteria
 140
 141 302.APPENDIX A References to Previous Rules
 142 302.APPENDIX B Sources of Codified Sections
 143 302.APPENDIX C Maximum total ammonia nitrogen concentrations allowable for certain
 144 combinations of pH and temperature
 145 302.TABLE A pH-Dependent Values of the AS (Acute Standard)
 146 302.TABLE B Temperature and pH-Dependent Values of the CS (Chronic
 147 Standard) for Fish Early Life Stages Absent
 148 302.TABLE C Temperature and pH-Dependent Values of the CS (Chronic
 149 Standard) for Fish Early Life Stages Present
 150

151 AUTHORITY: Implementing Section 13 and authorized by Sections 11(b) and 27 of the
 152 Environmental Protection Act [415 ILCS 5/13, 11(b), and 27].
 153

154 SOURCE: Filed with the Secretary of State January 1, 1978; amended at 2 Ill. Reg. 44, p. 151,
 155 effective November 2, 1978; amended at 3 Ill. Reg. 20, p. 95, effective May 17, 1979; amended
 156 at 3 Ill. Reg. 25, p. 190, effective June 21, 1979; codified at 6 Ill. Reg. 7818; amended at 6 Ill.
 157 Reg. 11161, effective September 7, 1982; amended at 6 Ill. Reg. 13750, effective October 26,
 158 1982; amended at 8 Ill. Reg. 1629, effective January 18, 1984; peremptory amendments at 10 Ill.
 159 Reg. 461, effective December 23, 1985; amended at R87-27 at 12 Ill. Reg. 9911, effective May
 160 27, 1988; amended at R85-29 at 12 Ill. Reg. 12082, effective July 11, 1988; amended in R88-1 at
 161 13 Ill. Reg. 5998, effective April 18, 1989; amended in R88-21(A) at 14 Ill. Reg. 2899, effective
 162 February 13, 1990; amended in R88-21(B) at 14 Ill. Reg. 11974, effective July 9, 1990; amended
 163 in R94-1(A) at 20 Ill. Reg. 7682, effective May 24, 1996; amended in R94-1(B) at 21 Ill. Reg.
 164 370, effective December 23, 1996; expedited correction at 21 Ill. Reg. 6273, effective December
 165 23, 1996; amended in R97-25 at 22 Ill. Reg. 1356, effective December 24, 1997; amended in
 166 R99-8 at 23 Ill. Reg. 11249, effective August 26, 1999; amended in R01-13 at 26 Ill. Reg. 3505,
 167 effective February 22, 2002; amended in R02-19 at 26 Ill. Reg. 16931, effective November 8,
 168 2002; amended in R02-11 at 27 Ill. Reg. 166, effective December 20, 2002; amended in R04-21
 169 at 29 Ill. Reg. _____, effective _____.
 170

171 SUBPART B: GENERAL USE WATER QUALITY STANDARDS
 172

173 **Section 302.207 Radioactivity**

- 174
175 a) Gross beta (STORET number 03501) concentration ~~must~~ shall not exceed 100
176 picocuries per liter (pCi/l).
- 177
178 b) ~~Strontium~~ Concentrations of radium 226 (STORET number 09501) and strontium
179 90 (STORET number 13501) concentration must shall not exceed 1 and 2
180 ~~picocuries per liter pCi/l, respectively.~~
- 181
182 c) Radium 226 and 228 (STORET number 11503) combined concentration must not
183 exceed 3.75 pCi/l, except as provided in subsection (d) of this Section.
- 184
185 d) The concentration of combined radium 226 and 228 must not exceed 30 pCi/l in
186 waters receiving discharge from a publicly owned treatment works (POTW) for
187 up to one mile downstream of the POTW discharge outfall, if the POTW receives
188 wastewater from any community that extracts, for drinking water use,
189 groundwater containing radium 226 and 228 combined at concentration levels
190 exceeding 3.75 pCi/l.

191 (Source: Amended at 29 Ill. Reg. _____, effective _____)

192
193
194 **SUBPART E: LAKE MICHIGAN BASIN WATER QUALITY STANDARDS**

195
196 **Section 302.525 Radioactivity**

197
198 Except as provided in Section 302.102, all waters of the Lake Michigan Basin must meet the
199 following concentrations in any sample:

- 200
201 a) Gross beta (STORET number 03501) concentrations must not exceed 100
202 picocuries per liter (pCi/l).
- 203
204 b) ~~Strontium~~ Concentrations of radium 226 (STORET number 09501) and strontium
205 90 (STORET number 13501) concentration must not exceed 1 and 2 picocuries
206 ~~per liter pCi/l, respectively.~~
- 207
208 c) Radium 226 and 228 (STORET number 11503) combined concentration must not
209 exceed 3.75 pCi/l at any time.

210
211 (Source: Amended at 29 Ill. Reg. _____, effective _____)