

ILLINOIS POLLUTION CONTROL BOARD  
April 26, 1990

IN THE MATTER OF: )  
 )  
PROPOSED AMENDMENTS TO TITLE ) R88-21, DOCKET B  
35, SUBTITLE C (TOXICS CONTROL) ) (Rulemaking)

PROPOSED RULE. SECOND NOTICE.

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

The Board by Order of December 6, 1989 created this Docket in the R88-21 proceeding for the purpose of allowing further consideration of certain adjuncts to the overall water toxics control regulations as adopted in Docket A of R88-21 (See Final Opinion and Order, January 25, 1990). First Notice of Docket B was adopted by the Board on December 6, 1989; publication occurred at 13 Ill. Reg. 20230 et seq.

The First Notice Docket B proposal considered amendments to seven different Sections in five separate Parts of the Board's water pollution control regulations. The general subject matter of the six amendments are as follows:

|                 |  |
|-----------------|--|
| Section 302.208 | General Use dissolved iron water quality standard                |
| Section 302.211 | Mixing zones for thermal discharges                              |
| Section 302.304 | Public and Food Processing water dissolved iron standard         |
| Section 303.354 | Horseshoe Lake mixing zone and ZID                               |
| Section 304.211 | Exception for intermittent discharges of total residual chlorine |
| Section 305.102 | Reporting requirements   |
| Section 309.152 | Compliance schedules and stays                                   |

Today the Board sends certain portions of the Docket B amendments to Second Notice, as discussed below.

PUBLIC COMMENTS

The Board has received five Public Comments ("PC") on the First Notice proposal. These are as follows:

|       |   |
|-------|---|
| PC 36 | Illinois Steel Group ("Steel Group")                              |
| PC 37 | Illinois Environmental Regulatory Group ("IERG")                  |
| PC 38 | Pekin Energy Company ("Pekin")                                    |
| PC 40 | Illinois Environmental Protection Agency ("Agency")               |
| PC 41 | United States Environmental Protection Agency, Region 5 ("USEPA") |

The Board notes that a portion of the IERG Public Comment, rather than addressing Docket B, addresses itself to repeal, reconsideration, and modifications of final actions taken in Docket A. The Board is not persuaded that these portions of the IERG Public Comment raise issues sufficient to warrant any of the actions requested by IERG.

GENERAL USE DISSOLVED IRON WATER QUALITY STANDARD

In Docket A the Board deleted the Total Iron General Use Water Quality Standard found at Section 302.208(e). This action was based upon the conclusion that the total iron standard is relatively meaningless from all environmental and health perspectives. Among other matters, total iron is predominantly present under ambient conditions as particulate iron compounds which are unavailable to aquatic life.

However, the Board continued to consider whether there should be adopted an alternative to the total iron standard. To that end the Board proposed for First Notice in Docket B a General Use Standard for dissolved iron at Section 302.208(e). At First Notice the Board observed:

Whereas there is no known documentation for the aquatic toxicity of total iron at ambient concentrations, there is evidence that dissolved iron in concentrations of less than 1 mg/l is toxic to at least certain aquatic organisms (R2. at 698-700, 759-60; Exh. 87). Additionally, there is substantive evidence that aquatic degradation accompanies even moderate concentrations of dissolved iron (R2. at 764). Upon review of these data, the Board concurs with the Agency, for the purpose of First Notice, that a General Use dissolved iron standard is necessary for the protection of Illinois waters. The standard the Board today adopts for First Notice is 0.2 mg/l, which the Board believes comports with the best available data on iron toxicity and ecological damage. (R88-21 Docket B, December 6, 1989, p. 2).

The only Public Comment which addresses the merits of this matter is the Steel Group's comment. The Steel Group contends that (a) the proposed standard has an inadequate scientific basis, and (b) compliance with the proposed standard will impose an unreasonable hardship on Illinois industries (PC 36 at 9-13). The Steel Group further proposes that the dissolved iron standard be 1.0 mg/l.

As regards the scientific basis for a 0.2 mg/l dissolved iron standard, the Steel Group observes that the record before the Board contains only two discussions of the toxicity of

dissolved iron. One of these consists of a 1988 study conducted in Denmark, the results of which have been questioned by Mr. Thomas Simpson, one of the Steel Group's witnesses (see R2.<sup>1</sup> at 1344-5). The second of these is contained in the "Red Book", USEPA's 1976 compendium of recommended criteria for water, wherein there is little relevant data on the toxicity of dissolved iron. The Steel Group concludes that this information is collectively old, concerns non-native species, and involves suspect field procedures (PC 36 at 10).

The Board believes that the Steel Group's observations regarding the lack of technical support for a 0.2 mg/l dissolved iron standard are persuasive. Indeed, the Board is impressed with the apparently very limited data on the toxicity of dissolved iron, particularly in light of the ubiquity of this substance. On this basis, the Board will not proceed with the numeric limitation proposed at First Notice.

Nevertheless, the Board continues to believe that environmental protection would not be adequately served in the total absence of a General Use iron standard. The Board accordingly today proposes a General Use standard of 1.0 mg/l, measured as dissolved iron, as recommended by the Steel Group (PC 36 at 13). The Board notes that this value is also the value recommended for iron generally in the "Red Book" and is same value previously employed for total iron.

The Board is not necessarily fully comfortable with this outcome, but it does believe that 1.0 mg/l presents the only standard defensible in the record before the Board. The Agency is, of course, welcome to institute an amendatory rulemaking at any time it believes it has sufficient documentation to support an alternate standard.

As a procedural matter, the Board notes that at First Notice the dissolved iron standard was proposed as an amendment to the then current version of Section 302.208. In the time since First Notice, Section 302.208 has undergone other amendments as part of the Docket A proceeding. Today's proposal is accordingly presented as an amendment of the now current version of Section 302.208 as adopted in Docket A.

<sup>1</sup> As noted in the Board's earlier Opinions in this matter, page numbering of the hearing transcripts was reset beginning with the hearing held on June 13, 1989. In conformity with the previously-used style, transcripts of that and subsequent dates are herein referenced as "R2. at \_\_\_\_".

MIXING ZONES FOR THERMAL DISCHARGES

At First Notice the Board had proposed the following addition at 35 Ill. Adm. Code 302.211(k):

- k) The temperature standards of this Section shall apply outside a zone of mixing which shall have an area no greater than a circle with radius of 183 meters (600 feet) or an equal area of simple form.

This proposal was advanced upon the recommendation of IERG and over the objection of the Agency. In making the First Notice proposal the Board noted that "[w]hile the Board is not yet convinced of either the need for nor the desirable effect of the proposal, the Board does believe that further exploration of the issue is justified" (R88-21 Docket B, December 6, 1989, p. 2).

IERG's principal concern appears to be that the allowed mixing provisions of Section 302.102, as adopted in Docket A, are directed toward toxic substances, and thereby do not recognize the special character of thermal discharges. As IERG has pointed out, "[t]he impact of heat ... may be quite different than that of toxic chemicals and may, in some instances, even be beneficial" (R2. at 742). In response to this concern, the Board observed at First Notice:

While the Board does not believe that the Section 302.102(b) limitations are necessarily tailored entirely to limiting the impact of toxic chemicals, the Board can nonetheless appreciate the unique nature of thermal discharges in this context. The Board does not necessarily see, however, how IERG's proposed language would address the potential inapplicability of any provision of Section 302.102(b) to thermal discharges. ...the Board questions whether the proposed language is unnecessarily redundant... (R88-21 Docket B, December 6, 1989, p. 3).

The Agency also now observes, as it did prior to First Notice (see PC 25 at 19), that proposed 302.211(k):

... is rather redundant in that it repeats a condition of mixing zones stated in Section 302.102. There is no provision in the [proposed 302.211(k) language] that would serve to circumvent any limiting provision of the mixing zone rule. As such, the Agency believes that this addition is neither beneficial nor harmful. (PC 40 at 1-2).

IERG now also seems to agree with the Agency. IERG notes: The Board's [First Notice] Opinion seems to ... not so much question the justification for Section 301.211(k), as it wonders how 302.211(k) prevents 302.102(b) from being applied to thermal discharges. As a result, IERG has reexamined both 302.102(b) and 302.211(k), and finds it must agree with the Board's view of the situation. (PC #37, Exhibit A).

Based on these perspectives, the Board believes that Section 302.211(k) serves no beneficial purpose, and accordingly will today delete it from the Docket B proposals.

As a final matter, the Board notes that IERG now urges the addition of an introductory clause at Section 302.102(b) as follows (PC 37, Exhibit A):

- b) Except as otherwise provided in this Chapter with respect to temperature, the portion, volume and area of any receiving waters within which mixing is allowed pursuant to subsection (a) shall be limited by the following: ...

The Board believes that this addition serves marginal, if any, purpose. Accordingly, the Board declines to proceed with it at this time.

#### PUBLIC AND FOOD PROCESSING WATER DISSOLVED IRON STANDARD

At First Notice the Board proposed a Public and Food Processing Water Supply Standard for dissolved iron of 0.3 mg/l. The Board noted that the amendment was occasioned because the deletion of total iron from the General Use Standards was also an effective deletion of total iron from the Public and Food Processing Water Standards, pursuant to the cumulative relationship of the Public and Food Processing Water Standards with the General Use Standards found at 35 Ill. Adm. Code 302.301. The 0.3 mg/l standard is that recommended by the USEPA in the "Red Book" as the limit beyond which conventional surface water systems are unable to consistently reduce higher levels of dissolved iron to aesthetically acceptable levels (R2. at 740-1). In this sense, it is not a health-limited standard.

The only Public Comment addressing this matter is the Agency's. The Agency recommends that the Board not proceed with this amendment on the basis that it is unnecessary under the assumption that the General Use Standard would be set at 0.2 mg/l as proposed at First Notice (PC 40 at 1). However, as noted above, the Board today declines to proceed with the 0.2 mg/l General Use proposal. Under this circumstance, the Board

believes that the Public and Food Processing Water Supply Standard as proposed at First Notice continues to constitute the proper action. This proposal will accordingly be moved to Second Notice.

#### HORSESHOE LAKE MIXING ZONE AND ZID

At First Notice of Docket A the Board proposed what is in effect a site-specific mixing zone rule applicable to discharge from Granite City Division of National Steel Corporation ("GCD") to Horseshoe Lake. Subsequently, the Board transferred the proposal to Docket B and sent it to First Notice there. The Board now notes that GCD has filed an essentially identical proposal in an Adjusted Standard proceeding: In the Matter of: Granite City Division of National Steel Corporation, AS 90-4.

As the Board noted during the First Notice of Docket B, "there is question as to whether GCD's concerns are in fact best addressed via a site-specific rule" (R88-21 Docket B, December 6, 1989, p. 4). The Board now concludes that the site-specific mode, as provided by GCD's adjusted standard proceeding, does in fact present the best forum for this matter. Accordingly, the GCD proposal will be today deleted from Docket B.

#### EXEMPTION FOR INTERMITTENT DISCHARGES OF TOTAL RESIDUAL CHLORINE

At First Notice the Board proposed, on the joint recommendation of IERG and the Agency, a exemption rule for intermittent discharges of total residual chlorine ("TRC"). The Board accepts now, as it did at First Notice, that the proposed rule is a necessary adjunct to the adoption in Docket A of a General Use Water Quality Standard for TRC.

The Board will not repeat here the justification for the exemption rule; the interested person is directed to the First Notice Opinion, p. 4-5. Rather, the Board notes that the post-First Notice Public Comments are generally supportive of the rule as proposed at First Notice. An exception is the position expressed by the USEPA, which recommends that each consideration of intermittent chlorination be treated as an individual site-specific determination (PC 41 at p.3). Given the degree of technical and economic support for a rule-of-general-applicability, the Board is convinced that USEPA's site-specific strategy would lead to an unwarranted drain on the resources of the regulated community and the State. The Board accordingly declines to accept USEPA's suggestion.

Pekin, which supports the general concept of an exemption rule, believes that the proposed rule does not go sufficiently far (PC #38). Specifically, Pekin would have the Board add the following sentence at the end of the rule as proposed:

Provided, however, that this provision shall not prevent facilities from receiving greater limits in terms of the duration of chlorination and the amount of chlorine allowed in the effluent upon their making a reasonable showing to the Agency that such greater limits are required to prevent biofouling and that such limits will not produce effects in the receiving stream that are appreciably different from the effects that would result from chlorination by the facility that complied with the proposed exception. (Id. at 4).

The Board notes that Pekin's proposed addition constitutes (with the salient exception of the roles played by the Board versus the Agency) essentially an adjusted standard level of justification in accord with Section 28.1 of the Illinois Environmental Protection Act ("Act") and 35 Ill. Adm. Code 301.108. While the Board has no objection to specifying levels of justification within the body of individual rules, pursuant to Section 28.1(b) of the Act, the Board notes that the general level of justification procedures of Section 28.1(c) would seemingly cover the particular justifications requested by Pekin. In addition, the Board has substantial question as to whether the roles contemplated by Pekin for the Agency and the Board are indeed the proper roles. For these reasons, the Board does not believe that Pekin's particular proposal has been sufficiently explored to allow it to proceed at this time.

As a procedural matter, the Board notes that the exemption procedure as proposed at First Notice was placed at 35 Ill. Adm. Code 304.221. This section number was at the time unused. However, the number has been subsequently preempted in another proceeding. Accordingly, today the intermittent chlorination exemption is placed in the next available section, Section 304.222.

#### REPORTING REQUIREMENTS

The Board at First Notice proposed amendments recommended by IERG at Section 305.102(d) and (e), the principal intention of which was to clarify the status of a permittee regarding legal action by a third party. The language as proposed was as follows:

- d) If the Agency specifies, as a permit condition, that information be provided regarding the biological impact of a discharge, then such information shall be provided in accordance with a schedule of compliance pursuant to Section 309.148.

- e) When a permit is conditioned pursuant to subsection (d) and the permittee is in compliance with such condition, there shall be no cause of action against the permittee for violations of toxicity in the receiving stream as a result of the permitted discharge.

The Public Comments which address this matter focus on proposed subsection (e), upon which they take rather strongly divergent views. The Steel Group, with IERG support (PC 37 at 8), contends that the proposal is flawed in not going far enough (PC 36 at 5-7). The Agency and the USEPA contend that the concept expressed in the proposal is inherently flawed (PC 40 at 4; PC 41 at 3-4). Among the comments, the Board believes that the Agency's perspective is particularly telling:

... As proposed, Section 305.102(e) would provide an automatic variance once the permittee met the conditions of Section 305.102(d). Permit conditions requiring monitoring per Section 305.102(d) could be for any number of concerns (biological assessment, chemical analysis, dilutions studies, etc.). However, to allow the permittee protection from enforcement of the toxic water quality standards insulates the permittee from any number of toxic water quality conditions that may or may not be related to the parameters, concerns and operations associated with the permit conditions. This proposal would also protect the discharger from toxic spills and even intentional toxic discharges. Clearly, this proposal is contrary to the current effluent and water quality provisions of Subtitle C, the Environmental Protection Act and Section 301(b)(1)(C) of the federal Clean Water Act; the latter federal statute requires and recognizes continuous compliance with water quality standards. Furthermore, any variance or adjusted standard must be approved by U.S. EPA pursuant to Section 303(c)(2)(A). Section 305.102(e) as proposed constitutes an automatic variance which is without procedures to generate a record necessary to meet U.S. EPA Water Quality Standards regulations.

Although the Board continues to see that clarification of the status of a permittee regarding third party challenges may be desirable, the Board fails to see how Section 305.102(e) can be successfully remedied to effectuate this goal. Additionally, the Board see no particular need for Section 305.103(d) in the absence of Section 305.102(e). Accordingly, the Board will not proceed with this matter at this time.

COMPLIANCE SCHEDULES AND STAYS

At First Notice of Docket B the Board proposed amendments to Section 309.152(b) intended to clarify an NPDES permit holder's rights to being deemed in compliance under the circumstance where compliance with Sections 302.208 or 302.210 subjects the NPDES permit to modification. A special feature of the Board's proposal was a defined period of stay of the application of Sections 302.208 and 302.210 during the period when the permit was being modified.

The Board's First Notice proposal is generally viewed negatively by the public commenters (see PC 36 at 7-8; PC 37 at 5-7; PC 40 at 4-5). The Board accepts these comments as indicative of the unworkability of the direction proposed at First Notice. Accordingly, that proposal is today deleted from this proceeding.

ORDER

The Board hereby proposes for Second Notice the following amendments to 35 Ill. Adm. Code, Subtitle C: Water Pollution, Chapter I, Pollution Control Board, Parts 302, and 304. The Board also hereby directs that Second Notice of the following proposed amendments be submitted to the Joint Committee on Administrative Rules.

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

PART 302  
WATER QUALITY STANDARDS

SUBPART A: GENERAL WATER QUALITY PROVISIONS

|         |                                       |
|---------|---------------------------------------|
| Section |                                       |
| 302.100 | Definitions                           |
| 302.101 | Scope and Applicability               |
| 302.102 | Allowed Mixing, Mixing Zones and ZIDs |
| 302.103 | Stream Flows                          |
| 302.104 | Main River Temperatures               |
| 302.105 | Nondegradation                        |

SUBPART B: GENERAL USE WATER QUALITY STANDARDS

|         |   |
|---------|---|
| Section |   |
| 302.201 | Scope and Applicability                     |
| 302.202 | Purpose                                     |
| 302.203 | Offensive Conditions                        |
| 302.204 | pH  |
| 302.205 | Phosphorus                                  |
| 302.206 | Dissolved Oxygen                            |
| 302.207 | Radioactivity                               |
| 302.208 | Numeric Standards for Chemical Constituents |
| 302.209 | Fecal Coliform                              |
| 302.210 | Other Toxic Substances                      |
| 302.211 | Temperature                                 |
| 302.212 | Ammonia Nitrogen and Un-ionized Ammonia     |

SUBPART C: PUBLIC AND FOOD PROCESSING WATER SUPPLY STANDARDS

|         |                          |
|---------|--------------------------|
| Section |                          |
| 302.301 | Scope and Applicability  |
| 302.302 | Algicide Permits         |
| 302.303 | Finished Water Standards |
| 302.304 | Chemical Constituents    |
| 302.305 | Other Contaminants       |
| 302.306 | Fecal Coliform           |

SUBPART D: SECONDARY CONTACT AND INDIGENOUS AQUATIC LIFE  
STANDARDS

|         |                                  |
|---------|----------------------------------|
| Section |                                  |
| 302.401 | Scope and Applicability          |
| 302.402 | Purpose                          |
| 302.403 | Unnatural Sludge                 |
| 302.404 | pH                               |
| 302.405 | Dissolved Oxygen                 |
| 302.406 | Fecal Coliform (Repealed)        |
| 302.407 | Chemical Constituents            |
| 302.408 | Temperature                      |
| 302.409 | Cyanide                          |
| 302.410 | Substances Toxic to Aquatic Life |

SUBPART E: LAKE MICHIGAN WATER QUALITY STANDARDS

|         |   |
|---------|---|
| Section |   |
| 302.501 | Scope and Applicability   |
| 302.502 | Dissolved Oxygen  |
| 302.503 | pH  |
| 302.504 | Chemical Constituents   |
| 302.505 | Fecal Coliform  |
| 302.506 | Temperature   |
| 302.507 | Existing Sources on January 1, 1971                                   |
| 302.508 | Sources under Construction But Not in Operation<br>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<br>for an Individual Substance - General Procedures   |
| 302.615 | Determining the Acute Aquatic Toxicity Criterion -<br>Toxicity Independent of Water Chemistry          |
| 302.618 | Determining the Acute Aquatic Toxicity Criterion -<br>Toxicity Dependent on Water Chemistry            |
| 302.621 | Determining the Acute Aquatic Toxicity Criterion -<br>Procedures for Combinations of Substances        |
| 302.627 | Determining the Chronic Aquatic Toxicity Criterion<br>for an Individual Substance - General Procedures |
| 302.630 | Determining the Chronic Aquatic Toxicity Criterion<br>- 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 (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 1013 and 1027).

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, effective June 22, 1982; amended at 6 Ill. Reg. 11161, effective September 7, 1982; amended at 6 Ill. Reg. 13750, effective October 26, 1982; amended at 8 Ill. Reg. 1629, effective January 18, 1984; 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 \_\_\_\_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

SUBPART B: GENERAL USE WATER QUALITY STANDARDS

Section 302.208 Numeric Standards for Chemical Constituents

- a) The acute standard (AS) for the chemical constituents listed in subsection (d) shall not be exceeded at any time except as provided in subsection (c).
- b) The chronic standard (CS) for the chemical constituents listed in subsection (d) shall not be exceeded by the arithmetic average of at least four consecutive samples collected over any period of at least four days, except as provided in subsection (c). The samples used to demonstrate compliance or lack of compliance with a CS must be collected in a manner which assures an average representative of the sampling period.
- c) In waters where mixing is allowed pursuant to Section 302.102, the following apply:
  - 1) The AS shall not be exceeded in any waters except for those waters for which the Agency has approved a ZID pursuant to Section 302.102;

- 2) The CS shall not be exceeded outside of waters in which mixing is allowed pursuant to Section 302.102.

d)

| Constituent                 | STORET Number | AS (ug/L)   | CS (ug/L)  |
|-----------------------------|---------------|---|--|
| Arsenic (total)             | 01002         | 360   | 190  |
| Cadmium (total)             | 01027         | exp[A + Bln(H)], but not to exceed 50 ug/L, where A = -2.918 and B = 1.128  | exp[A + Bln(H)], where A = -3.490 and B = 0.7852 |
| Chromium (total hexavalent) | 01032         | 16  | 11   |
| Chromium (total trivalent)  | 01033         | exp[A + Bln(H)], where A = 3.688 and B = 0.8190                             | exp[A + Bln(H)], where A = 1.561 and B = 0.8190  |
| Copper (total)              | 01042         | exp[A + Bln(H)], where A = -1.464 and B = 0.9422                            | exp[A + Bln(H)], where A = -1.465 and B = 0.8545 |
| Cyanide                     | 00718         | 22  | 5.2  |
| Lead (total)                | 01051         | exp[A + Bln(H)], but not to exceed 100 ug/L, where A = -1.460 and B = 1.273 | Not Applied                                      |
| Mercury                     | 71900         | 0.5   | Not Applied                                      |
| TRC                         | 50060         | 19  | 11   |

where: ug/L = microgram per liter,

exp[x] = base of natural logarithms raised to the x-power, and

ln(H) = natural logarithm of Hardness (STORET 00900).

- e) Concentrations of the following chemical constituents shall not be exceeded except in waters for which mixing is allowed pursuant to Section 302.102.

| Constituent            | Units | STORET Number | Standard |
|------------------------|-------|---------------|----------|
| Barium (total)         | mg/L  | 01007         | 5.0      |
| Boron (total)          | mg/L  | 01022         | 1.0      |
| Chloride (total)       | mg/L  | 00940         | 500.     |
| Fluoride               | mg/L  | 00951         | 1.4      |
| Iron (dissolved)       | mg/l  | 01046         | 1.0      |
| Manganese (total)      | mg/L  | 01055         | 1.0      |
| Nickel (total)         | mg/L  | 01067         | 1.0      |
| Phenols                | mg/L  | 32730         | 0.1      |
| Selenium (total)       | mg/L  | 01147         | 1.0      |
| Silver (total)         | ug/L  | 01077         | 5.0      |
| Sulfate                | mg/L  | 00945         | 500.     |
| Total Dissolved Solids | mg/L  | 70300         | 1000.    |
| Zinc (total)           | mg/L  | 01092         | 1.0      |

where: mg/L = milligram per liter and  
ug/L = microgram per liter

(Source: Amended at \_\_\_\_\_ Ill. Reg. \_\_\_\_\_,  
effective \_\_\_\_\_)

SUBPART C: PUBLIC AND FOOD PROCESSING  
WATER SUPPLY STANDARDS

Section 302.304 Chemical Constituents

The following levels of chemical constituents shall not be exceeded:

| CONSTITUENT       | STORET NUMBER | CONCENTRATION (mg/l) |
|-------------------|---------------|----------------------|
| Arsenic (total)   | 01002         | 0.05                 |
| Barium (total)    | 01007         | 1.0                  |
| Cadmium (total)   | 01027         | 0.010                |
| Chloride          | 00940         | 250.                 |
| Chromium          | 01034         | 0.05                 |
| Iron (dissolved)  | 01046         | 0.3                  |
| Lead (total)      | 01051         | 0.05                 |
| Manganese (total) | 01055         | 0.15                 |

|   |                          |        |
|---|--------------------------|--------|
| Nitrate-Nitrogen  | 00620                    | 10.    |
| Oil (hexane-solubles<br>or equivalent)                                    | 00550, 00556<br>or 00560 | 0.1    |
| Organics  |                          |        |
| Pesticides  |                          |        |
| Chlorinated Hydro-<br>carbon Insecticides                                 |                          |        |
| Aldrin  | 39330                    | 0.001  |
| Chlordane   | 39350                    | 0.003  |
| DDT   | 39370                    | 0.05   |
| Dieldrin  | 39380                    | 0.001  |
| Endrin  | 39390                    | 0.0002 |
| Heptachlor  | 39410                    | 0.0001 |
| Heptachlor Epoxide  | 39420                    | 0.0001 |
| Lindane   | 39782                    | 0.004  |
| Methoxychlor  | 39480                    | 0.1    |
| Toxaphene   | 39400                    | 0.005  |
| Organophosphate<br>Insecticides   |                          |        |
| Parathion   | 39540                    | 0.1    |
| Chlorophenoxy Herbicides  |                          |        |
| 2,4-Dichlorophenoxy-<br>acetic acid (2,4-D)                               | 39730                    | 0.1    |
| 2-(2,4,5-Trichloro-<br>phenoxy)-propionic<br>acid (2,4,5-TP<br>or Silvex) | 39760                    | 0.01   |
| Phenols   | 32730                    | 0.001  |
| Selenium (total)  | 01147                    | 0.01   |
| Sulphates   | 00945                    | 250.   |
| Total Dissolved Solids  | 70300                    | 500.   |

(Source: Amended at \_\_\_\_\_ Ill. Reg. \_\_\_\_\_,  
effective \_\_\_\_\_)

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 | Nitrogen (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  |
| 304.212 | Sanitary District of Decatur Discharges  |
| 304.213 | Union Oil 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   |
| 304.219 | 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
  - 304.302 City of Joliet East Side Wastewater Treatment Plant

APPENDIX A References to Previous Rules

AUTHORITY: Implementing Section 13 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2 pars. 1013 and 1027).

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; peremptory 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 R86-17(B) at 13 Ill. Reg. 7754, effective May 4, 1989, amended in R88-22 at 13

Ill. Reg. 8880, effective May 26, 1989; amended in R88-21(B)  
at \_\_\_\_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

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

Section 304.222      Intermittent Discharge of TRC

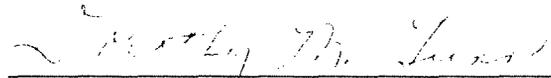
The acute TRC water quality standard of 35 Ill. Adm. Code 302.208 by operation of Section 304.105 shall not apply to any discharge which contains TRC solely as the result of intermittent usage for antifouling purposes related to the operation of condensers and cooling systems. For the purposes of this Section usage of chlorine or related substances measureable as TRC shall be deemed to be intermittent if usage is restricted to a maximum of two hours per day per condenser or cooling system unit. Discharge concentration of TRC averaged or composited over the discharge period shall not exceed 0.2 mg/l nor shall the TRC concentration exceed 0.5 mg/l at any time.

(Source: Added at \_\_\_\_\_ Ill. Reg. \_\_\_\_\_,  
effective \_\_\_\_\_)

IT IS SO ORDERED.

Board Member Joan Anderson concurred.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 26<sup>th</sup> day of August, 1990, by a vote of 7-0.

  
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Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board