

ILLINOIS POLLUTION CONTROL BOARD
August 24, 1995

IN THE MATTER OF:)
)
PETITION OF THE METROPOLITAN WATER) R95-14
RECLAMATION DISTRICT OF GREATER) (Site-Specific
CHICAGO FOR SITE-SPECIFIC WATER) Rulemaking - Water)
QUALITY REGULATION FOR CYANIDE)
(Amendments to 35 Ill. Adm. Code)
303 and 304))

Proposed Rule.

First Notice.

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

This matter comes before the Board upon a proposal to amend the Board's water quality regulations for cyanide. The proposal was filed by the Metropolitan Water Reclamation District of Greater Chicago (District) who requests that the existing General Use chronic standard (CS) for weak acid dissociable (WAD) cyanide be changed from 5.2 $\mu\text{g/L}$ to 10 $\mu\text{g/L}$ as applied to the West Branch of the DuPage River, Higgins Creek, Salt Creek, and the Des Plaines River within Cook County.

The Board's responsibility in this matter arises from the Environmental Protection Act (Act) (415 ILCS 5/1 et seq. (1994)). The Board is charged therein to "determine, define and implement the environmental control standards applicable in the State of Illinois" (415 ILCS 5/5(b)). More generally, the Board's rulemaking charge is based on the system of checks and balances integral to Illinois environmental governance: the Board bears responsibility for the rulemaking and principal adjudicatory functions; the Illinois Environmental Protection Agency (Agency) has primary responsibility for administration of the Act and the Board's regulations, including today's proposed regulation.

By today's action the Board adopts the proposed amendments for the purpose of first notice, pursuant to the Illinois Administrative Procedure Act (5 ILCS 100/1-1 et seq. (1994)). Publication in the *Illinois Register* will follow today's action, whereupon a 45-day public comment period will begin during which interested persons may file additional public comment with the Board.

PROCEDURAL HISTORY

The District filed its proposal on April 28, 1995. By order of May 4, 1995 the Board accepted the proposal for hearing.

A public hearing was held before hearing officer Audrey Lozuk-Lawless in Chicago on June 30, 1995. The District presented the testimony of Dr. Cecil Lue-Hing, Director of Research and Development at the District; of Dr. Richard G. Luthy, Professor and Head of the Department of Civil and Environmental Engineering at Carnegie Mellon University; and of Dr. Herbert Allen, Professor of Environmental Engineering at the University of Delaware.

Dr. Lue-Hing presented an overview of the District's petition, including discussion of the existing WAD cyanide standard and studies the District has undertaken of that standard. Dr. Lue-Hing additionally addressed the economic impact to the District and the water quality of the rivers impacted by the proposed new standard.

Dr. Luthy addressed the methodology for WAD cyanide analysis, including the precision and accuracy of the WAD cyanide test. Dr. Allen addressed the methodologies for determining a WAD cyanide CS.

Public comments have been filed by the following persons: Chicago Metal Finishers Institute (PC #1), Illinois Association of Wastewater Agencies (PC #2), the District (PC #3), and the Agency (PC #4). All comments support the District's proposal. The Agency suggests various changes to the proposal which the Board discusses below.

BACKGROUND

The District is a unit of government with jurisdiction within part of Cook County, Illinois. Among the duties of the District is operation of water reclamation plants (WRPs), which, as part of their normal activities, produce discharges to local waterways.

The Board has established water quality standards for the streams of the State, including streams within the area served by the District. Among these standards are two standards for cyanide¹ that apply to the General Use Waterways to which the District discharges. These are a chronic standard (CS) with a value of 5.2 µg/L and an acute standard (AS) of 22 µg/L. The parameter to be measured in both cases is WAD cyanide, identified by the STORET number 00718.

¹ These standards are found at 35 Ill. Adm. Code 302.208(d). They were adopted in Board proceeding R88-21(A) (In the matter of: Amendments to Title 35, Subtitle C (Toxics Control)), effective February 13, 1990.

At issue in the instant proceedings are three of the District's seven WRPs and the General Use Water Quality streams to which they discharge. These are:

<u>WRP</u>	<u>Receiving Stream</u>	<u>ADF*</u>
Hanover Park	West Branch DuPage River	8.87
John E. Egan	Salt Creek	24.5
James C. Kirie	Higgins Creek	31.8

*(ADF = Average 1994 daily flow in million gallons per day)

Each of the three receiving streams has a 7-day, 10-year low flow of zero at the point of discharge. The three receiving streams are tributary to a fourth stream of interest, the Des Plaines River.

In 1993 the Agency issued renewed National Pollutant Discharge Elimination System (NPDES) permits for the Hanover Park and James C. Kirie WRPs. In these permits the Agency for the first time included numerical effluent limits based on the cyanide water quality standards². These effluent limits for the two plants are 5.2 and 5.0 $\mu\text{g/L}$, respectively, measured as monthly average WAD cyanide, and 22 $\mu\text{g/L}$ measured as daily maximum WAD cyanide.

The NPDES cyanide limits were set equal to the cyanide CS, in keeping with the permit-writing practice applicable to streams that have 7-day, 10-year low flows of zero.

Prior to the 1993 issuance of the NPDES permits at issue, the District had not conducted routine analysis of effluent cyanide. However, analyses conducted subsequently at both the Hanover Park and James C. Kirie WRPs have suggested to the District that a 5 $\mu\text{g/L}$ monthly average³ of WAD cyanide would often be equaled or exceeded. In this circumstance the District believes that compliance with the monthly averages currently expressed in the permits is problematic. The District believes that the solution lies in examination of the rationale for the cyanide General Use CS, and bases the instant petition on that examination.

² Upon petition from the District the Agency has set the effective date for the cyanide limits to October 1, 1996.

³ The District believes that it would have no difficulty complying with the 22 $\mu\text{g/L}$ daily limits.

JUSTIFICATION FOR PROPOSED AMENDMENTS

The District has identified four factors that it believes give technical justification for a CS standard of 10 $\mu\text{g}/\text{L}$ ⁴. These are:

1. The indigenous species used in calculating fish toxicities are not applicable to the waterways named in the District's proposal.
2. Use of WAD cyanide for determining water quality standards is not directly related to toxicity as compared to use of free cyanide.
3. Chlorine interferes with the WAD cyanide test.
4. The regulatory limits are at or below the limit of detection.

The Board will address each of these in turn.

Use of Indigenous Species

Determination of AS and CS water quality standards is accomplished by a well-established procedure⁵ that involves consideration of the toxicity of the substance in question to a range of aquatic organisms. In fresh-water environments such as under concern here, the procedures and cyanide data base are such that the four fish species most sensitive to cyanide determine the calculated standards⁶.

⁴ This value is expressed in the record both as 10 $\mu\text{g}/\text{L}$ and 10.0 $\mu\text{g}/\text{L}$. The Agency recommends (PC #4 at ¶16), and the Board agrees, that in view of concerns regarding precision of WAD cyanide analyses, 10 $\mu\text{g}/\text{L}$ is the preferred form.

⁵ The procedures are given in Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses, NTIS PB85-227049. Similar procedures are present in the Board's regulations at 35 Ill. Adm. Code 302.Subpart F: Procedures for Determining Water Quality Criteria.

⁶ Application of the procedures, including selection of data and calculations using the data to produce the CS values discussed herein, is detailed in the testimony of Dr. Allen at Tr. 35-42 and Exh. 2. The Agency has independently undertaken the analysis, and confirms the results obtained by Dr. Allen. (Tr. at 54.)

The current CS cyanide standard of 5.2 $\mu\text{g}/\text{L}$ was established based upon a calculation that included toxicities to rainbow trout, brook trout, yellow perch, and bluegill as the four species in question. However, the District observes that rainbow trout, which is the most sensitive of the four species to cyanide, are not indigenous to the District's waterways.

The District notes that rainbow trout have never been observed in any of the extensive fish collections made by the District. (Proposal at p. 45-51; Tr. at 25.) Moreover, the District observes that rainbow trout, which are a coldwater fish species, are intolerant of the warmwater environments at issue here. (Proposal at p. 50-54.)

If rainbow trout are not included in the cyanide CS calculation, the four most sensitive species become the four fishes: brook trout⁷, yellow perch, bluegill, and black crappie. When these four species are used, the calculated CS value for cyanide becomes 9.799 $\mu\text{g}/\text{L}$. (Tr. at 41-42; Exh. 2 at 6.) The District recommends that this value, rounded to 10 $\mu\text{g}/\text{L}$, be the CS applicable in the District's waterways.

The Agency agrees that rainbow trout are not a species indigenous to the District's waterways. (Tr. at 62-63.) The Agency further observes that excluding rainbow trout from the CS calculation for the streams at issue is consistent with federal guidance and that the resultant cyanide CS of 10 $\mu\text{g}/\text{L}$ is protective of existing and expected aquatic life. (PC #4 at ¶2.)

WAD Cyanide Toxicity

Cyanide occurs in natural aquatic environments in a number of forms. Among these are HCN, CN^- , and complexes of cyanide with metals (e.g., ferrocyanide). The WAD cyanide measurement procedure measures all three of these forms. However, it is generally recognized that only the first two forms, HCN and CN^- (collectively called free cyanide), significantly contribute to the toxicity of cyanide. (Tr. at 44,) Thus, analyses of WAD cyanide overestimates the toxicity of the cyanide in direct proportion to the amount of metalocyanide complexes present in any sample.

This problem would be eliminated if free cyanide could be measured directly. However, there currently is no approved method for analysis of free cyanide in natural samples. (Tr. at

⁷ At hearing it was noted that brook trout do not occur in the waterways at issue, and that yellow perch are rare (Tr. at 51-54). Nevertheless, no suggestion has been made that these species also be excluded from the CS calculation; if brook trout are excluded, the calculated CS would be 10.9 $\mu\text{g}/\text{L}$ (Tr. at 54).

29, 45; Exh. 3 at 2.) Thus, analysis of WAD cyanide must be used in default.

The District observes that for these reasons, WAD cyanide is a conservative measure of cyanide toxicity. (Tr. at 29.) Nevertheless, at the low levels of metals and cyanide in the District's effluent, there should be little difference between the expected free cyanide concentrations and measured WAD cyanide concentrations. (Tr. at 59.)

Chlorine Interference

The District has completed 16½ months of detailed WAD cyanide sampling and analysis in effluents from the Hanover Park and James C. Kirie WRPs. In both data sets the District observes that measured WAD cyanide concentrations were higher during the months of May through October than in November through April⁸. The only consistent difference in inflow or operational parameters between these two time periods is that during May through October both WRPs employ chlorination/dechlorination procedures.

The District observes that during the summer of 1994, when the correlation between chlorination/dechlorination was becoming evident, it undertook a study of the fate of WAD cyanide concentrations during the treatment process, including sampling prior to and after chlorination. (Tr. at 31-32; Exh. 1 at 11.) The results verified that chlorination causes an increase in the reported WAD cyanide concentrations (Id.), although it remains uncertain whether the increase is caused by an analytical interference or by a chemical reaction that produces new cyanide (Tr. at 55-57).

Detection Limit

The District observes that Standard Methods for the Examination of Water and Wastewater, 18th edition, lists the limit of detection for WAD cyanide as 5 to 20 µg/L, depending upon the sample matrix. (Proposal at 57.) The District observes, accordingly, that a standard at 5.2 µg/L lies at the threshold of and "perhaps beyond the limits of existing laboratory analytical methodology" (Id.).

⁸ At the Hanover Park WRP, the WAD cyanide concentrations on the final effluent were 1.0 to 2.0 µg/L during November through April, versus 4.0 to 6.0 µg/L during May through October. (Exh. 1 at Table 1.) At the James C. Kirie WRP WAD cyanide concentrations were 1.0 to 2.0 µg/L during November through April, versus 3.0 to 4.0 µg/L during May through October. (Exh. 1 at Table 2.)

In addition, Dr. Luthy, who chairs the task group that prepared the section on cyanide for the current edition of Standard Methods, notes that the single operator precision for the determination of WAD cyanide is about 8 µg/L for samples in the range 5-10 µg/L. (Tr. at 47; Exh. 3 at 3.) He concludes that considerable variation should be expected in such low-level samples, and that "it would be improper to ascribe great significance to sample analyses in this range" (Id.).

ECONOMICS

The District has calculated the cost of replacing the chlorination/dechlorination system at the Hanover Park and James C. Kirie WRPs. (Proposal at 24, Attachment 7.) The District calculated estimates of replacing the existing system with ultraviolet radiation (UV) and ozone disinfection. The calculations indicate that ozonation would be the least costly replacement alternative. The District's total cost to replace the current chlorination/dechlorination system with an ozonation system would be \$5,699,728 in construction costs, with an annual operating cost of \$164,200. (Id.) The total annualized capital plus operating cost for both WRPs would be \$830,097. (Id.) These expenses do not include any costs for replacing the existing chlorination/dechlorination system at the John E. Egan WRP.

The District notes that even with this expenditure, there is no guarantee that an ozonation system would not produce increases in WAD cyanide as observed during chlorination/dechlorination.

AGENCY'S RECOMMENDED TEXTURAL MODIFICATIONS

At ¶s 10 and 11 of PC #4 the Agency recommends several modifications to the text of the proposed site-specific language, none of which would change the relief requested. The principal recommendation is deletion of the District's request to amend 35 Ill. Adm. Code 302.208. The Agency observes, and the Board agrees, that the language proposed for 35 Ill. Adm. Code 303.444 is sufficient to effectuate the relief, and that it is neither necessary nor consistent with prior practice to repeat that language at Section 302.208. Accordingly, the Board does not today propose to amend Section 302.208.

The Agency suggests that the District's proposed language at Section 304.201(d) be modified to "preserve the existing parallel construction of 35 Ill. Adm. Code 304.201" (PC #4 at ¶10), but the Agency does not propose specific language to that effect. The Board has reviewed this Agency's suggestion and believes that the no substantive modification is necessary. The Board does today change the phrase "... to meet a monthly average WAD cyanide effluent standard ..." to "... to meet a weak acid

dissociable cyanide (STORET number 00718) effluent standard ..."
It is redundant to declare the standard a monthly standard, since pursuant to Section 304.104(a)(1) the prescribed numeric standards of Part 304 are monthly averages. The Board also believes that it is advisable to spell out the meaning of WAD.

Lastly, the Agency observes that the existing Section 304.201 uses the District's former, rather than current, name. (PC #4 at ¶10.) Today's first notice amends the name.

STATE-WIDE APPLICABILITY

At hearing the Agency postulated that the cyanide CS standard might be better amended to 10 µg/L as a state-wide rule than as a site-specific rule. (Tr. at 62-63.) In the Agency's opinion, the justification presented by the District applies not only to the waters to which the District discharges, but to all General Use waters within the State excluding Lake Michigan. The Agency is of the further opinion that other water treatment districts can be expected to request and justify relief similar to that requested by the District. It might therefore be most administratively economical to amend the cyanide standard generally, rather than in piecemeal site-specific fashion.

The Agency has further indicated that it is engaged in discussions with interested persons regarding a state-wide proposal, after which a proposal may be filed. (PC #4 at ¶9.)

CONCLUSION

The Board believes that the District has presented evidence warranting further consideration of this matter. Accordingly, we today find that the record before us justifies adopting the District's proposal for first notice.

The Board will again review the record in this matter upon completion of the first notice period, and determine then whether the record continues to support moving this matter towards adoption.

ORDER

The Board hereby proposes for first notice the following amendments to 35 Ill. Adm. Code 303 and 304. The Clerk of the Board is directed to file these proposed rules with the Secretary of State.

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

PART 303
WATER USE DESIGNATIONS AND SITE SPECIFIC
WATER QUALITY STANDARDS

SUBPART A: GENERAL PROVISIONS

Section
303.100 Scope and Applicability
303.101 Multiple Designations
303.102 Rulemaking Required

SUBPART B: NONSPECIFIC WATER USE DESIGNATIONS

Section
303.200 Scope and Applicability
303.201 General Use Waters
303.202 Public and Food Processing Water Supplies
303.203 Underground Waters
303.204 Secondary Contact and Indigenous Aquatic Life Waters

SUBPART C: SPECIFIC USE DESIGNATIONS AND SITE SPECIFIC
WATER QUALITY STANDARDS

Section
303.300 Scope and Applicability
303.301 Organization
303.311 Ohio River Temperature
303.312 Waters Receiving Fluorspar Mine Drainage
303.321 Wabash River Temperature
303.322 Unnamed Tributary of the Vermilion River
303.323 Sugar Creek and Its Unnamed Tributary
303.331 Mississippi River North Temperature
303.341 Mississippi River North Central Temperature
303.351 Mississippi River South Central Temperature
303.352 Unnamed Tributary of Wood River Creek
303.353 Schoenberger Creek; Unnamed Tributary of Cahokia Canal
303.361 Mississippi River South Temperature
303.400 Bankline Disposal Along the Illinois Waterway Rivers
303.430 Unnamed Tributary to Dutch Creek
303.431 Long Point Slough and Its Unnamed Tributary
303.441 Secondary Contact Waters
303.442 Waters Not Designated for Public Water Supply
303.443 Lake Michigan
303.444 Salt Creek, Higgins Creek, West Branch of the DuPage
River, Des Plaines River

SUBPART D: THERMAL DISCHARGES

Section
303.500 Scope and Applicability
303.502 Lake Sangchris Thermal Discharges

303.Appendix A References to Previous Rules
303.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. 27, p. 221, effective July 5, 1978; amended at 3 Ill. Reg. 20, p. 95, effective May 17, 1979; amended at 5 Ill. Reg. 11592, effective October 19, 1981; codified at 6 Ill. Reg. 7818; amended at 6 Ill. Reg. 11161, effective September 7, 1982; amended at 7 Ill. Reg. 8111, effective June 23, 1983; amended in R87-27 at 12 Ill. Reg. 9917, effective May 27, 1988; amended in R87-2 at 13 Ill. Reg. 15649, effective September 22, 1989; amended in R87-36 at 14 Ill. Reg. 9460, effective May 31, 1990; amended in R86-14 at 14 Ill. Reg. 20724, effective December 18, 1990; amended in R89-14(C) at 16 Ill. Reg. 14684, effective September 10, 1992; amended in R92-17 at 18 Ill. Reg. at 2981 effective February 14, 1994; amended in R91-23 at 18 Ill. Reg. 13457, effective August 19, 1994; amended in R93-13 at 19 Ill. Reg. 1310 effective January 30, 1995; amended in R95-14 at 19 Ill. Reg. _____ effective _____.

Section 303.444 Salt Creek, Higgins Creek, West Branch of the DuPage River, Des Plaines River

The General Use chronic water quality standard for cyanide (STORET number 00718) contained in Section 302.208 does not apply to Salt Creek, Higgins Creek, the West Branch of the DuPage River, and the Des Plaines River in Cook County, Illinois. Instead, for these waters the chronic cyanide standard is 10 µg/L.

(Source: Amended at 19 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 <u>Water Reclamation</u> 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
- 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 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 R86-17B 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; added at 14 Ill. Reg. 11979, effective July 9, 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 R87-33 at 18 Ill. Reg. 11574, effective July 7, 1994; amended in R94-1 at 19

Ill. Reg. _____, effective _____
_____; amended in R95-14 at 19 Ill. Reg.
_____, effective _____.

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

Section 304.201 Wastewater Treatment Plant Discharges of The Metropolitan Sanitary Water Reclamation District of Greater Chicago

a) Calumet Treatment Plant Cyanide Discharges:

The effluent standards of Section 304.124 as applied to cyanide discharges, Sections 304.120(b) and (c) and Section 304.122 do not apply to BOD₅, total suspended solids, cyanide, and ammonia-nitrogen discharged from the Calumet Sewage Treatment Works of The Metropolitan Sanitary Water Reclamation District of Greater Chicago. Instead, it must meet the following effluent standard, subject to the averaging rule of Section 304.104(a), effective July 1, 1988:

CONSTITUENT	STORET NUMBER	CONCENTRATION (mg/l)
CBOD5	80082	24
SS	00530	28
Ammonia Nitrogen (as N)	00610	13
Cyanide	00720	0.15

b) North Side Sewage Treatment Works

The effluent standards of Sections 304.120(b) and (c) and 304.122 do not apply to BOD₅, total suspended solids, and ammonia-nitrogen discharged from the North Side Sewage Treatment Works of The Metropolitan Sanitary Water Reclamation District of Greater Chicago. Instead, it must meet the following standard, subject to the averaging rule of Section 304.104(a) effective July 1, 1988:

CONSTITUENT	STORET NUMBER	CONCENTRATION (mg/l)
CBOD5	80082	12
SS	00530	20
Ammonia Nitrogen (as N)		

April-October	00610	2.5
November-March	00610	4.0

c) Chicago Waterway Evaluation

The Metropolitan Sanitary Water Reclamation District of Greater Chicago shall complete and submit to the Board a comprehensive water quality evaluation of the Chicago Waterway System and its influence on the lower Des Plaines and Upper Illinois Rivers by January 15, 1992. Such evaluation shall include assessment of performance levels for North Side, Calumet and Stickney wastewater reclamation plants and the extent of sewer overflow reduction through The Metropolitan Sanitary Water Reclamation District of Greater Chicago's Tunnel and Reservoir Plan.

d) John E. Egan, Hanover Park, and James C. Kirie Water Reclamation Plants

The discharges of the John E. Egan, Hanover Park, and James C. Kirie Water Reclamation Plants must meet a weak acid dissociable cyanide (STORET 00718) effluent standard of 10 µg/L, subject to the averaging rule of Section 304.104(a).

(Source: Amended at 19 Ill. Reg. _____, effective _____)

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 24th day of August, 1995, by a vote of 7-0.

Dorothy M. Gunn
Dorothy M. Gunn, Clerk
Illinois Pollution Control Board