

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>
302.102	Amend
302.208	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: For a more detailed discussion of these amendments, see the Board's September 20, 2007, opinion and order in docket R07-9: Triennial Review of Sulfate and Total Dissolved Solids Water Quality Standards: Proposed Amendments to 35 Ill. Adm. Code 302.102(b)(6), 302.102(b)(8), 302.102(b)(10), 302.208(g), 309.103(c)(3), 405.109(b)(2)(A), 409.109(b)(2)(B), 406.100(d); Repealer of 35 Ill. Adm. Code 406.203, 406.209, and Part 407; and Proposed New 35 Ill. Adm. Code 302.208(h). The amendments in this rulemaking propose changes to Parts 302, 309, 405, 406, and the repeal of Part 407 and the amendments to all of the Parts in this rulemaking should be read jointly. This rulemaking is intended to fulfill the requirement of the Federal Water Pollution Control Act, 33 USC §1251-1387, also known as the Clean Water Act (CWA), that states must triennially revise and update water quality standards to ensure that standards are protective of public health and welfare, enhance the quality of water and promote the purposes of the CWA. This update is known as a triennial water quality standards review.

Specifically, the amendments to Part 302 propose deletion of the existing general use water quality standards for sulfate and total dissolved solids and the addition of two acute aquatic toxicity criterion equations for sulfate at specified ranges of hardness and chlorides in the proposed new Section 302.208(h). These equations allow for the calculation of site-specific sulfate standards based on water quality characteristics. In addition, the proposal includes a numeric chronic sulfate standard of 2000 mg/L applicable to areas where water is withdrawn or accessed for livestock watering. The amendments to Section 302.102 propose to allow mixing in certain low flow streams where adequate upstream dilution exists in the receiving stream at the time of discharge. However, the amendments allow mixing in no more than 50% of the flow for streams where the dilution ratio is less than 3 to 1.

- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: The regulatory proposal included the Illinois EPA's Technical Support

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POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

document, included with the Illinois EPA's original filing in this rulemaking, that relied on several published studies and reports. Copies of the reports that the Illinois EPA relied upon are available for review with the Pollution Control Board and are listed below.

Goodfellow, W.L., L.W. Ausley, D.T. Burton, D.L. Denton, P.B. Dorn, D.R. Grothe, M.A. Heber, T.J. Norberg-King, and J.H. Rodgers, Jr. 2000. Major ion toxicity in effluents: a review with permitting recommendations. *Environmental Toxicology and Chemistry*, 19:175-182.

Mount, D.R., D.D. Gulley, J.R. Hackett, T.D. Garrison, and J.M. Evans. 1997. Statistical models to predict the toxicity of major ions to *Ceriodaphnia dubia*, *Daphnia magna* and *Pimephales promelas* (Fathead Minnows). *Environmental Toxicology and Chemistry*, 16(10): 2009-2019.

Soucek, D.J. 2004a. Effects of hardness, chloride, and acclimation on the acute toxicity of sulfate to freshwater invertebrates. Illinois Natural History Survey. Final Report submitted to Illinois Environmental Protection Agency and Illinois Coal Association.

Soucek, D.J. 2004b. Effects of water quality on acute and chronic toxicity of sulfate to freshwater bivalves, *Ceriodaphnia dubia*, and *Hyalella azteca*. Illinois Natural History Survey. First Quarterly Report submitted to U.S. Environmental Protection Agency, Region 5.

Soucek, D.J. 2005a. Effects of water quality on acute and chronic toxicity of sulfate to freshwater bivalves, *Ceriodaphnia dubia*, and *Hyalella azteca*. Illinois Natural History Survey. Second Quarterly Report submitted to U.S. Environmental Protection Agency, Region 5.

Soucek, D.J. 2005b. Effects of water quality on acute and chronic toxicity of sulfate to freshwater bivalves, *Ceriodaphnia dubia*, and *Hyalella azteca*. Illinois Natural History Survey. Third Quarterly Report submitted to U.S. Environmental Protection Agency, Region 5.

Soucek, D.J. 2006. Effects of water quality on acute and chronic toxicity of sulfate to freshwater bivalves, *Ceriodaphnia dubia*, and *Hyalella azteca*. Illinois Natural History Survey. Final Report submitted to U.S. Environmental Protection Agency, Region 5. CP96543701-0.

American Public Health Association. 1989. Standard Methods for the Examination of

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

Water and Wastewater, 17th ed., Washington, D.C.

McKee, J.E. and H.W. Wolf 1963. Water Quality Criteria, 2nd ed., The Resources Agency of California, California State Water Quality Control Board, Sacramento, CA. Publication No. 3-A, p. 548.

Weeth, H.J. and D.L. Capps. 1972. Tolerance of growing cattle for sulfate water. Journal of Animal Science. 34(2): 256-260.

Loneragan, G.H., J.J. Wagner, D.H. Gould, F.B. Garry, and M.A. Thoren, 2001, Effects of water sulfate concentration on performance, water intake, and carcass characteristics of feedlot steers. Journal of Animal Science, 79:2941-2948.

Braul, L. and B. Kirychuk. 2001. Water Quality and Cattle. Prairie Farm Rehabilitation Office, Agriculture and Agri-Food Canada. Publication ENH- 1 11-2001-10.

Patterson, H.H., P.S. Johnson, E.H. Ward, and R.N. Gates. 2004. Effects of sulfates in water on performance of cow-calf pairs. Proceedings, Western Section, American Society of Animal Science. 55: 265-268.

Patterson, H.H., P.S. Johnson, T.R. Patterson, D.B. Young, and R. Haigh. 2002. Effects of water quality on performance and health of growing steers. Proceedings, Western Section, American Society of Animal Science. 53: 217-220.

- 7) Will this rulemaking replace any emergency rulemaking currently in effect? No
- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Does this rulemaking contain incorporations by reference? No
- 10) Are there any other proposed rulemakings pending on this Part? No
- 11) Statement of Statewide Policy Objectives: This proposed rule does not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805/3(b)].
- 12) 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 45 days after the date of publication in the *Illinois Register*. Comments should reference Docket R07-9 and be addressed to:

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

Clerk's Office
Illinois Pollution Control Board
100 W. Randolph St., Suite 11-500
Chicago, IL 60601

Interested persons may request copies of the Board's opinion and order by calling the Clerk's office at 312-814-3620, or may download copies from the Board's Web site at www.ipcb.state.il.us.

For more information contact hearing officer Marie Tipsord at 312/814-4925 or email at tipsordm@ipcb.state.il.us.

13) Initial Regulatory Flexibility Analysis:

- A) Types of small businesses, small municipalities and not for profit corporations affected: The amendments in this rulemaking could affect any small business, small municipality, and not-for-profit organization that has a permit to discharge wastes to waters of the State.
- B) Reporting, bookkeeping or other procedures required for compliance: The proposed amendments do not add any additional reporting or recordkeeping requirements beyond what is already established in the Board's rules.
- C) Types of Professional skills necessary for compliance: No professional skills beyond those currently required by the existing state and federal water pollution control regulations applicable to affected sources will be required.

14) Regulatory Agenda on which this rulemaking was summarized: July 2007

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

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 Antidegradation

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 Total Ammonia Nitrogen
302.213 Effluent Modified Waters (Ammonia) (Repealed)

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
302.307 Radium 226 and 228

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 BASIN WATER QUALITY STANDARDS

Section

- 302.501 Scope, Applicability, and Definitions
- 302.502 Dissolved Oxygen
- 302.503 pH
- 302.504 Chemical Constituents
- 302.505 Fecal Coliform
- 302.506 Temperature
- 302.507 Thermal Standards for Existing Sources on January 1, 1971
- 302.508 Thermal Standards for Sources Under Construction But Not In Operation on January 1, 1971
- 302.509 Other Sources
- 302.510 Incorporations by Reference
- 302.515 Offensive Conditions
- 302.520 Regulation and Designation of Bioaccumulative Chemicals of Concern (BCCs)
- 302.521 Supplemental Antidegradation Provisions for Bioaccumulative Chemicals of Concern (BCCs)
- 302.525 Radioactivity
- 302.530 Supplemental Mixing Provisions for Bioaccumulative Chemicals of Concern (BCCs)
- 302.535 Ammonia Nitrogen
- 302.540 Other Toxic Substances
- 302.545 Data Requirements
- 302.550 Analytical Testing
- 302.553 Determining the Lake Michigan Aquatic Toxicity Criteria or Values - General Procedures
- 302.555 Determining the Tier I Lake Michigan Acute Aquatic Toxicity Criterion (LMAATC): Independent of Water Chemistry
- 302.560 Determining the Tier I Lake Michigan Basin Acute Aquatic Life Toxicity Criterion (LMAATC): Dependent on Water Chemistry
- 302.563 Determining the Tier II Lake Michigan Basin Acute Aquatic Life Toxicity Value (LMAATV)
- 302.565 Determining the Lake Michigan Basin Chronic Aquatic Life Toxicity Criterion (LMCATC) or the Lake Michigan Basin Chronic Aquatic Life Toxicity Value (LMCATV)
- 302.570 Procedures for Deriving Bioaccumulation Factors for the Lake Michigan Basin
- 302.575 Procedures for Deriving Tier I Water Quality Criteria and Values in the Lake Michigan Basin to Protect Wildlife
- 302.580 Procedures for Deriving Water Quality Criteria and Values in the Lake Michigan Basin to Protect Human Health - General
- 302.585 Procedures for Determining the Lake Michigan Basin Human Health Threshold Criterion (LMHHTC) and the Lake Michigan Basin Human Health Threshold Value (LMHHTV)
- 302.590 Procedures for Determining the Lake Michigan Basin Human Health Nonthreshold Criterion (LMHHNC) or the Lake Michigan Basin Human Health Nonthreshold Value (LMHHNV)
- 302.595 Listing of Bioaccumulative Chemicals of Concern, Derived Criteria and Values

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 - Procedure 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 Combinations 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

302.APPENDIX A References to Previous Rules

302.APPENDIX B Sources of Codified Sections

302.APPENDIX C Maximum total ammonia nitrogen concentrations allowable for certain combinations of pH and temperature

302.TABLE A pH-Dependent Values of the AS (Acute Standard)

302.TABLE B Temperature and pH-Dependent Values of the CS (Chronic Standard) for Fish Early Life Stages Absent

302.TABLE C Temperature and pH-Dependent Values of the CS (Chronic Standard) for Fish Early Life Stages Present

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].

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; amended at 8 Ill. Reg. 1629, effective January 18, 1984; preemptory amendments at 10 Ill. Reg. 461, effective December 23, 1985; amended at R87-27 at 12 Ill. Reg. 9911, effective May 27, 1988; amended at 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. 6273, effective December 23, 1996; amended in R97-25 at 22 Ill.

Reg. 1356, effective December 24, 1997; amended in R99-8 at 23 Ill. Reg. 11249, effective August 26, 1999; amended in R01-13 at 26 Ill. Reg. 3505, effective February 22, 2002; amended in R02-19 at 26 Ill. Reg. 16931, effective November 8, 2002; amended in R02-11 at 27 Ill. Reg. 166, effective December 20, 2002; amended in ~~R0704-921~~ at ~~3130~~ Ill. Reg. ~~4919~~, effective March 1, 2006; amended in R07-9 at 31 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL WATER QUALITY PROVISIONS

Section 302.102 Allowed Mixing, Mixing Zones and ZIDs

- a) Whenever a water quality standard is more restrictive than its corresponding effluent standard, or where there is no corresponding effluent standard specified at 35 Ill. Adm. Code 304, an opportunity shall be allowed for compliance with 35 Ill. Adm. Code 304.105 by mixture of an effluent with its receiving waters, provided the discharger has made every effort to comply with the requirements of 35 Ill. Adm. Code 304.102.
- b) The portion, volume and area of any receiving waters within which mixing is allowed pursuant to subsection (a) shall be limited by the following:
 - 1) Mixing must be confined in an area or volume of the receiving water no larger than the area or volume which would result after incorporation of outfall design measures to attain optimal mixing efficiency of effluent and receiving waters. Such measures may include, but are not limited to, use of diffusers and engineered location and configuration of discharge points.
 - 2) Mixing is not allowed in waters which include a tributary stream entrance if such mixing occludes the tributary mouth or otherwise restricts the movement of aquatic life into or out of the tributary.
 - 3) Mixing is not allowed in water adjacent to bathing beaches, bank fishing areas, boat ramps or dockages or any other public access area.
 - 4) Mixing is not allowed in waters containing mussel beds, endangered species habitat, fish spawning areas, areas of important aquatic life habitat, or any other natural features vital to the well being of aquatic life in such a manner that the maintenance of aquatic life in the body of water as a whole would be adversely affected.
 - 5) Mixing is not allowed in waters which contain intake structures of public or food processing water supplies, points of withdrawal of water for irrigation, or watering areas accessed by wild or domestic animals.
 - 6) Mixing must allow for a zone of passage for aquatic life in which water quality standards are met. However, a zone of passage is not required in receiving streams that have zero flow for at least seven consecutive days recurring on average in nine years out of ten.
 - 7) The area and volume in which mixing occurs, alone or in combination with other areas and volumes of mixing, must not intersect any area of any body of water in such a manner that the maintenance of aquatic life in the body of water as a whole would be adversely affected.
 - 8) The area and volume in which mixing occurs, alone or in combination with other areas and volumes of mixing must not contain more than 25% of the cross-sectional area or volume of flow of a stream except for those streams where the

dilution ratio is less than 3:1. The area and volume in which mixing occurs, alone or in combination with other areas and volumes of mixing, must not contain more than 25% of the cross-sectional ~~are~~area or volume of flow of a stream except for those streams where the dilution ratio is less than 3:1. In streams where the dilution ratio is less than 3:1, other than streams that have a zero flow for at least seven consecutive days recurring on average in nine years out of ten, the volume in which mixing occurs, alone or in combination with other volumes of mixing, must not contain more than 50% of the volume flow. ~~Mixing is not allowed in receiving waters which have a zero minimum seven day low flow which occurs once in ten years.~~

9) No mixing is allowed where the water quality standard for the constituent in question is already violated in the receiving water.

10) No body of water may be used totally for mixing of single outfall or combination of outfalls, except as provided in Section 302.102(b)(6).

11) Single sources of effluents which have more than one outfall shall be limited to a total area and volume of mixing no larger than that allowable if a single outfall were used.

12) The area and volume in which mixing occurs must be as small as is practicable under the limitations prescribed in this subsection, and in no circumstances may the mixing encompass a surface area larger than 26 acres.

c) All water quality standards of this Part must be met at every point outside of the area and volume of the receiving water within which mixing is allowed. The acute toxicity standards of Sections 302.208 and 302.210 must be met within the area and volume within which mixing is allowed, except as provided in subsection (e).

d) Pursuant to the procedures of Section 39 of the Act and 35 Ill. Adm. Code 309, a person may apply to the Agency to include as a condition in an NPDES permit formal definition of the area and volume of the waters of the State within which mixing is allowed for the NPDES discharge in question. Such formally defined area and volume of allowed mixing shall constitute a "mixing zone" for the purposes of 35 Ill. Adm. Code: Subtitle C. Upon proof by the applicant that a proposed mixing zone conforms with the requirements of Section 39 of the Act, this Section and any additional limitations as may be imposed by the Clean Water Act (CWA) (33 ~~U.S.C.~~ 1251 et seq.), the Act or Board regulations, the Agency shall, pursuant to Section 39(b) of the Act, include within the NPDES permit a condition defining the mixing zone.

e) Pursuant to the procedures of Section 39 of the Act and 35 Ill. Adm. Code 309, a person may apply to the Agency to include as a condition in an NPDES permit a ZID as a component portion of a mixing zone. Such ZID shall, at a minimum, be limited to waters within which effluent dispersion is immediate and rapid. For the purposes of this subsection, "immediate" dispersion means an effluent's merging with receiving waters without delay in time after its discharge and within close proximity of the end of the discharge pipe, so as to minimize the length of exposure time of aquatic life to undiluted effluent, and "rapid" dispersion means an effluent's merging with receiving waters so as to minimize the length of exposure time of aquatic life to undiluted effluent. Upon proof by the applicant that a proposed ZID conforms with the requirements of Section 39 of the Act and this Section, the Agency shall, pursuant to Section 39(b) of the Act, include within the NPDES permit a condition defining the ZID.

f) Pursuant to Section 39 of the Act and 35 Ill. Adm. Code 309.103, an applicant for an NPDES permit shall submit data to allow the Agency to determine that the nature of any mixing zone or mixing zone in combination with a ZID conforms with the requirements of Section 39 of the Act and of this Section. A permittee may appeal Agency determinations concerning a mixing zone or ZID pursuant to the procedures of Section 40 of the Act and 35 Ill. Adm. Code 309.181.

g) Where a mixing zone is defined in an NPDES permit, the waters within that mixing zone, for the duration of that NPDES permit, shall constitute the sole waters within which mixing is allowed for the permitted discharge. It shall not be a defense in any action brought pursuant to 35 Ill. Adm. Code 304.105 that the area and volume of waters within which mixing may be allowed pursuant to subsection (b) is less restrictive than the area or volume or waters encompassed in the mixing zone.

h) Where a mixing zone is explicitly denied in a NPDES permit, no waters may be used for mixing by the discharge to which the NPDES permit applies, all other provisions of this Section notwithstanding.

i) Where an NPDES permit is silent on the matter of a mixing zone, or where no NPDES permit is in effect, the burden of proof shall be on the discharger to demonstrate compliance with this Section in any action brought pursuant to 35 Ill. Adm. Code 304.105.

(Source: Amended at 31 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 (e) shall not be exceeded at any time except as provided in subsection (d).

b) The chronic standard (CS) for the chemical constituents listed in subsection (e) 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 (d). The samples used to demonstrate attainment or lack of attainment with a CS must be collected in a manner that assures an average representative of the sampling period. For the metals that have water quality based standards dependent upon hardness, the chronic water quality standard will be calculated according to subsection (e) using the hardness of the water body at the time the metals sample was collected. To calculate attainment status of chronic metals standards, the concentration of the metal in each sample is divided by the calculated water quality standard for the sample to determine a quotient. The water quality standard is attained if the mean of the sample quotients is less than or equal to one for the duration of the averaging period.

c) The human health standard (HHS) for the chemical constituents listed in subsection (f) shall not be exceeded when the stream flow is at or above the harmonic mean flow pursuant to Section 302.658 nor shall an annual average, based on at least eight samples, collected in a manner representative of the sampling period, exceed the HHS except as provided in subsection (d).

d) 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 zone of initial dilutions (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.

3) The HHS shall not be exceeded outside of waters in which mixing is allowed pursuant to Section 302.102.

e) Numeric Water Quality Standards for the Protection of Aquatic Organisms

Constituent STORET Number AS ($\mu\text{g/L}$) CS ($\mu\text{g/L}$) Arsenic (trivalent, dissolved) ~~22680360~~ 22680360

~~360~~ X $1.0^* = 360$ 190 X $1.0^* = 190$ Cadmium (dissolved) 01025 ~~exp[A~~

~~expA+Bln(H)] X {1.138672 - [(lnH) (0.041838)]}*, where A=-2.918 and B=1.128 ~~exp[A~~ ~~expA+Bln(H)] X {1.101672 - [(lnH) (0.041838)]}*, where A=-3.490 and B=0.7852 Chromium~~~~

(hexavalent, total) 010321611 Chromium (trivalent, dissolved) 80357

~~exp[A~~ ~~expA+Bln(H)] X 0.316*,~~

where A=3.688 and B=0.8190 ~~exp[A~~ ~~expA+Bln(H)] X 0.860*,~~

where A=1.561 and B=0.8190 Copper

(dissolved) 01040 ~~exp[A~~ ~~expA+Bln(H)] X 0.960*,~~

where A=-1.464 and B=0.9422 ~~exp[A~~ ~~expA+Bln(H)] X 0.960* ~~-~~~~

where A=-1.465 and B=0.8545 Cyanide ~~0071822-5.2~~ 00718225.2 Lead

(dissolved) 01049 ~~exp[A~~

~~expA+Bln(H)] X {1.46203 - [(lnH) (0.145712)]}*,~~

where A=-1.301 and B=1.273 ~~exp[A~~ ~~expA+Bln(H)] X {1.46203 - [(lnH) (0.145712)]}*,~~

where A=-2.863 and B=1.273 Mercury (dissolved) 71890 2.6 X $0.85^* = 2.21.3$ X

$0.85^* = 1.1$ Nickel (dissolved) 01065 ~~exp[A~~ ~~expA+Bln(H)] X 0.998*,~~

where A=0.5173 and B=0.8460 ~~exp[A~~ ~~expA+Bln(H)] X 0.997*,~~

where A=-2.286 and B=0.8460 TRC5006001911 Zinc (dissolved) 01090 ~~exp[A~~ ~~expA+Bln(H)] X 0.978*,~~

where A=0.9035 and B=0.8473 ~~Exp[A~~ ~~expA+Bln(H)] X 0.986*,~~

where A=-0.8165 and

B=0.8473 Benzene 781244200860 Ethylbenzene 7811315014 Toluene 781312000600 Xylene(s) 815 51920360

where: $\mu\text{g/L}$ = microgram per liter, ~~exp[x]~~ ~~liter expx~~ = base natural logarithms

raised to the x- power, ~~ln(H)~~ = natural logarithm of Hardness (STORET 00900) ~~-~~

~~and~~ * = conversion factor multiplier for dissolved metals

f) Numeric Water Quality Standard for the Protection of Human Health

Constituent STORET Number ($\mu\text{g/L}$) Mercury

~~719000-012~~ 719000.012 Benzene 78124310

where: $\mu\text{g/L}$ = micrograms per liter

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

Constituent
Unit STORET

Constituent	Unit	STORET Number	Standard	Barium (total)	mg/L	01007
5.0 010075.0	Boron (total)	mg/L	01022	1.0 010221.0	Chloride (total)	mg/L
500 00940500	Fluoride	mg/L	00951	1.4 009511.4	Iron (dissolved)	mg/L
1.0 010461.0	Manganese (total)	mg/L	01055	1.0 010551.0	Phenols	mg/L
0.1 327300.1	Selenium (total)	mg/L	01147	1.0 011471.0	Silver (total)	µg/L
5.0	Sulfate	mg/L	00945	500	Total Dissolved	010775.0
0.0	Solids	mg/L	703001000			

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

h) The following concentrations for sulfate must not be exceeded except in receiving waters for which mixing is allowed pursuant to Section 302.102:

1) At any point where water is withdrawn or accessed for purposes of livestock watering, the average of sulfate concentrations must not exceed 2,000 mg/L when measured at a representative frequency over a 30 day period.

2) The results of the following equations provide sulfate water quality standards in mg/L for the specified ranges of hardness (in mg/L as CaCO₃) and chloride (in mg/L) and must be met at all times:

A) If the hardness concentration of receiving waters is greater than or equal to 100 mg/L but less than or equal to 500 mg/L, and if the chloride concentration of waters is greater than or equal to 25 mg/L but less than or equal to 500 mg/L, then:

$$C = [1276.7 + 5.508 (\text{hardness}) - 1.457 (\text{chloride})] * 0.65$$

~~Where,~~ where:

C = sulfate concentration

B) If the hardness concentration of waters is greater than or equal to 100 mg/L but less than or equal to 500 mg/L, and if the chloride concentration of waters is greater than or equal to 5 mg/L but less than 25 mg/L, then:

$$C = [-57.478 + 5.79 (\text{hardness}) + 54.163 (\text{chloride})] * 0.65$$

~~Where,~~ where:

C = sulfate concentration

3) The following sulfate standards must be met at all times when hardness (in mg/L as CaCO₃) and chloride (in mg/L) concentrations other than specified in (h) (2) are present:

A) If the hardness concentration of waters is less than 100 mg/L or chloride concentration of waters is less than 5 mg/L, the sulfate standard is 500 mg/L.

B) If the hardness concentration of waters is greater than 500 mg/L and the chloride concentration of waters is 5 mg/L or greater, the sulfate standard is 2,000 mg/L.

C) If the combination of hardness and chloride concentrations of existing waters are not reflected ~~above~~ in subsection (h) (3) (A) or (B), the sulfate standard will be determined on a case-by-case basis in conjunction with an applicable NPDES permitting process.

(Source: Amended at 31 Ill. Reg. _____, effective _____ -)
~~ILLINOIS REGISTER~~

~~NOTICE OF PROPOSED AMENDMENT~~

JCAR350302-0713624r01

~~POLLUTION CONTROL BOARD~~

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

PART 302
WATER QUALITY STANDARDS

SUBPART A: GENERAL WATER QUALITY PROVISIONS

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

SUBPART B: GENERAL USE WATER QUALITY STANDARDS

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)

SUBPART C: PUBLIC AND FOOD PROCESSING WATER SUPPLY STANDARDS

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

44	302.307	Radium 226 and 228
45		
46		SUBPART D: SECONDARY CONTACT AND
47		INDIGENOUS AQUATIC LIFE STANDARDS
48		
49	Section	
50	302.401	Scope and Applicability
51	302.402	Purpose
52	302.403	Unnatural Sludge
53	302.404	pH
54	302.405	Dissolved Oxygen
55	302.406	Fecal Coliform (Repealed)
56	302.407	Chemical Constituents
57	302.408	Temperature
58	302.409	Cyanide
59	302.410	Substances Toxic to Aquatic Life

60

61 SUBPART E: LAKE MICHIGAN BASIN WATER QUALITY STANDARDS

62

63	Section	
64	302.501	Scope, Applicability, and Definitions
65	302.502	Dissolved Oxygen
66	302.503	pH
67	302.504	Chemical Constituents
68	302.505	Fecal Coliform
69	302.506	Temperature
70	302.507	Thermal Standards for Existing Sources on January 1, 1971
71	302.508	Thermal Standards for Sources Under Construction But Not In Operation on
72		January 1, 1971
73	302.509	Other Sources
74	302.510	Incorporations by Reference
75	302.515	Offensive Conditions
76	302.520	Regulation and Designation of Bioaccumulative Chemicals of Concern (BCCs)
77	302.521	Supplemental Antidegradation Provisions for Bioaccumulative Chemicals of
78		Concern (BCCs)
79	302.525	Radioactivity
80	302.530	Supplemental Mixing Provisions for Bioaccumulative Chemicals of Concern
81		(BCCs)
82	302.535	Ammonia Nitrogen
83	302.540	Other Toxic Substances
84	302.545	Data Requirements
85	302.550	Analytical Testing
86	302.553	Determining the Lake Michigan Aquatic Toxicity Criteria or Values – General

87		Procedures
88	302.555	Determining the Tier I Lake Michigan Acute Aquatic Toxicity Criterion (LMAATC): Independent of Water Chemistry
89		
90	302.560	Determining the Tier I Lake Michigan Basin Acute Aquatic Life Toxicity Criterion (LMAATC): Dependent on Water Chemistry
91		
92	302.563	Determining the Tier II Lake Michigan Basin Acute Aquatic Life Toxicity Value (LMAATV)
93		
94	302.565	Determining the Lake Michigan Basin Chronic Aquatic Life Toxicity Criterion (LMCATC) or the Lake Michigan Basin Chronic Aquatic Life Toxicity Value (LMCATV)
95		
96		
97	302.570	Procedures for Deriving Bioaccumulation Factors for the Lake Michigan Basin
98	302.575	Procedures for Deriving Tier I Water Quality Criteria and Values in the Lake Michigan Basin to Protect Wildlife
99		
100	302.580	Procedures for Deriving Water Quality Criteria and Values in the Lake Michigan Basin to Protect Human Health – General
101		
102	302.585	Procedures for Determining the Lake Michigan Basin Human Health Threshold Criterion (LMHHTC) and the Lake Michigan Basin Human Health Threshold Value (LMHHTV)
103		
104		
105	302.590	Procedures for Determining the Lake Michigan Basin Human Health Nonthreshold Criterion (LMHHNC) or the Lake Michigan Basin Human Health Nonthreshold Value (LMHHNV)
106		
107		
108	302.595	Listing of Bioaccumulative Chemicals of Concern, Derived Criteria and Values
109		

SUBPART F: PROCEDURES FOR DETERMINING WATER QUALITY CRITERIA

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

130 302.642 The Human Threshold Criterion
 131 302.645 Determining the Acceptable Daily Intake
 132 302.648 Determining the Human Threshold Criterion
 133 302.651 The Human Nonthreshold Criterion
 134 302.654 Determining the Risk Associated Intake
 135 302.657 Determining the Human Nonthreshold Criterion
 136 302.658 Stream Flow for Application of Human Nonthreshold Criterion
 137 302.660 Bioconcentration Factor
 138 302.663 Determination of Bioconcentration Factor
 139 302.666 Utilizing the Bioconcentration Factor
 140 302.669 Listing of Derived Criteria
 141
 142 302.APPENDIX A References to Previous Rules
 143 302.APPENDIX B Sources of Codified Sections
 144 302.APPENDIX C Maximum total ammonia nitrogen concentrations allowable for certain
 145 combinations of pH and temperature
 146 302.TABLE A pH-Dependent Values of the AS (Acute Standard)
 147 302.TABLE B Temperature and pH-Dependent Values of the CS (Chronic Standard)
 148 for Fish Early Life Stages Absent
 149 302.TABLE C Temperature and pH-Dependent Values of the CS (Chronic Standard)
 150 for Fish Early Life Stages Present
 151

152 AUTHORITY: Implementing Section 13 and authorized by Sections 11(b) and 27 of the
 153 Environmental Protection Act [415 ILCS 5/13, 11(b), and 27].
 154

155 SOURCE: Filed with the Secretary of State January 1, 1978; amended at 2 Ill. Reg. 44, p. 151,
 156 effective November 2, 1978; amended at 3 Ill. Reg. 20, p. 95, effective May 17, 1979; amended
 157 at 3 Ill. Reg. 25, p. 190, effective June 21, 1979; codified at 6 Ill. Reg. 7818; amended at 6 Ill.
 158 Reg. 11161, effective September 7, 1982; amended at 6 Ill. Reg. 13750, effective October 26,
 159 1982; amended at 8 Ill. Reg. 1629, effective January 18, 1984; peremptory amendments at 10 Ill.
 160 Reg. 461, effective December 23, 1985; amended at R87-27 at 12 Ill. Reg. 9911, effective May
 161 27, 1988; amended at R85-29 at 12 Ill. Reg. 12082, effective July 11, 1988; amended in R88-1 at
 162 13 Ill. Reg. 5998, effective April 18, 1989; amended in R88-21(A) at 14 Ill. Reg. 2899, effective
 163 February 13, 1990; amended in R88-21(B) at 14 Ill. Reg. 11974, effective July 9, 1990; amended
 164 in R94-1(A) at 20 Ill. Reg. 7682, effective May 24, 1996; amended in R94-1(B) at 21 Ill. Reg.
 165 370, effective December 23, 1996; expedited correction at 21 Ill. Reg. 6273, effective December
 166 23, 1996; amended in R97-25 at 22 Ill. Reg. 1356, effective December 24, 1997; amended in
 167 R99-8 at 23 Ill. Reg. 11249, effective August 26, 1999; amended in R01-13 at 26 Ill. Reg. 3505,
 168 effective February 22, 2002; amended in R02-19 at 26 Ill. Reg. 16931, effective November 8,
 169 2002; amended in R02-11 at 27 Ill. Reg. 166, effective December 20, 2002; amended in R04-21
 170 at 30 Ill. Reg. 4919, effective March 1, 2006; amended in R07-9 at 31 Ill. Reg. _____, effective
 171 _____.

SUBPART A: GENERAL WATER QUALITY PROVISIONS

Section 302.102 Allowed Mixing, Mixing Zones and ZIDs

- a) Whenever a water quality standard is more restrictive than its corresponding effluent standard, or where there is no corresponding effluent standard specified at 35 Ill. Adm. Code 304, an opportunity shall be allowed for compliance with 35 Ill. Adm. Code 304.105 by mixture of an effluent with its receiving waters, provided the discharger has made every effort to comply with the requirements of 35 Ill. Adm. Code 304.102.
- b) The portion, volume and area of any receiving waters within which mixing is allowed pursuant to subsection (a) shall be limited by the following:
 - 1) Mixing must be confined in an area or volume of the receiving water no larger than the area or volume which would result after incorporation of outfall design measures to attain optimal mixing efficiency of effluent and receiving waters. Such measures may include, but are not limited to, use of diffusers and engineered location and configuration of discharge points.
 - 2) Mixing is not allowed in waters which include a tributary stream entrance if such mixing occludes the tributary mouth or otherwise restricts the movement of aquatic life into or out of the tributary.
 - 3) Mixing is not allowed in water adjacent to bathing beaches, bank fishing areas, boat ramps or dockages or any other public access area.
 - 4) Mixing is not allowed in waters containing mussel beds, endangered species habitat, fish spawning areas, areas of important aquatic life habitat, or any other natural features vital to the well being of aquatic life in such a manner that the maintenance of aquatic life in the body of water as a whole would be adversely affected.
 - 5) Mixing is not allowed in waters which contain intake structures of public or food processing water supplies, points of withdrawal of water for irrigation, or watering areas accessed by wild or domestic animals.
 - 6) Mixing must allow for a zone of passage for aquatic life in which water quality standards are met. However, a zone of passage is not

- 216 required in receiving streams that have zero flow for at least seven
 217 consecutive days recurring on average in nine years out of ten.
 218
 219 7) The area and volume in which mixing occurs, alone or in
 220 combination with other areas and volumes of mixing, must not
 221 intersect any area of any body of water in such a manner that the
 222 maintenance of aquatic life in the body of water as a whole would
 223 be adversely affected.
 224
 225 8) The area and volume in which mixing occurs, alone or in
 226 combination with other areas and volumes of mixing must not
 227 contain more than 25% of the cross-sectional area or volume of
 228 flow of a stream except for those streams where the dilution ratio is
 229 less than 3:1. The area and volume in which mixing occurs, alone
 230 or in combination with other areas and volumes of mixing, must
 231 not contain more than 25% of the cross-sectional area or volume of
 232 flow of a stream except for those streams where the dilution ratio is
 233 less than 3:1. In streams where the dilution ratio is less than 3:1,
 234 other than streams that have a zero flow for at least seven
 235 consecutive days recurring on average in nine years out of ten, the
 236 volume in which mixing occurs, alone or in combination with
 237 other volumes of mixing, must not contain more than 50% of the
 238 volume flow. Mixing is not allowed in receiving waters which have
 239 a zero minimum seven day low flow which occurs once in ten
 240 years.
 241
 242 9) No mixing is allowed where the water quality standard for the
 243 constituent in question is already violated in the receiving water.
 244
 245 10) No body of water may be used totally for mixing of single outfall
 246 or combination of outfalls, except as provided in Section
 247 302.102(b)(6).
 248
 249 11) Single sources of effluents which have more than one outfall shall
 250 be limited to a total area and volume of mixing no larger than that
 251 allowable if a single outfall were used.
 252
 253 12) The area and volume in which mixing occurs must be as small as is
 254 practicable under the limitations prescribed in this subsection, and
 255 in no circumstances may the mixing encompass a surface area
 256 larger than 26 acres.
 257
 258 c) All water quality standards of this Part must be met at every point outside of the

- 259 area and volume of the receiving water within which mixing is allowed. The
 260 acute toxicity standards of Sections 302.208 and 302.210 must be met within the
 261 area and volume within which mixing is allowed, except as provided in
 262 subsection (e).
 263
- 264 d) Pursuant to the procedures of Section 39 of the Act and 35 Ill. Adm. Code 309, a
 265 person may apply to the Agency to include as a condition in an NPDES permit
 266 formal definition of the area and volume of the waters of the State within which
 267 mixing is allowed for the NPDES discharge in question. Such formally defined
 268 area and volume of allowed mixing shall constitute a "mixing zone" for the
 269 purposes of 35 Ill. Adm. Code: Subtitle C. Upon proof by the applicant that a
 270 proposed mixing zone conforms with the requirements of Section 39 of the Act,
 271 this Section and any additional limitations as may be imposed by the Clean Water
 272 Act (CWA) (33 USC 1251 et seq.), the Act or Board regulations, the
 273 Agency shall, pursuant to Section 39(b) of the Act, include within the NPDES
 274 permit a condition defining the mixing zone.
 275
- 276 e) Pursuant to the procedures of Section 39 of the Act and 35 Ill. Adm. Code 309, a
 277 person may apply to the Agency to include as a condition in an NPDES permit a
 278 ZID as a component portion of a mixing zone. Such ZID shall, at a minimum, be
 279 limited to waters within which effluent dispersion is immediate and rapid. For the
 280 purposes of this subsection, "immediate" dispersion means an effluent's merging
 281 with receiving waters without delay in time after its discharge and within close
 282 proximity of the end of the discharge pipe, so as to minimize the length of
 283 exposure time of aquatic life to undiluted effluent, and "rapid" dispersion means
 284 an effluent's merging with receiving waters so as to minimize the length of
 285 exposure time of aquatic life to undiluted effluent. Upon proof by the applicant
 286 that a proposed ZID conforms with the requirements of Section 39 of the Act and
 287 this Section, the Agency shall, pursuant to Section 39(b) of the Act, include
 288 within the NPDES permit a condition defining the ZID.
 289
- 290 f) Pursuant to Section 39 of the Act and 35 Ill. Adm. Code 309.103, an applicant for
 291 an NPDES permit shall submit data to allow the Agency to determine that the
 292 nature of any mixing zone or mixing zone in combination with a ZID conforms
 293 with the requirements of Section 39 of the Act and of this Section. A permittee
 294 may appeal Agency determinations concerning a mixing zone or ZID pursuant to
 295 the procedures of Section 40 of the Act and 35 Ill. Adm. Code 309.181.
 296
- 297 g) Where a mixing zone is defined in an NPDES permit, the waters within that
 298 mixing zone, for the duration of that NPDES permit, shall constitute the sole
 299 waters within which mixing is allowed for the permitted discharge. It shall not be
 300 a defense in any action brought pursuant to 35 Ill. Adm. Code 304.105 that the
 301 area and volume of waters within which mixing may be allowed pursuant to

302 subsection (b) is less restrictive than the area or volume or waters encompassed in
303 the mixing zone.

- 304
- 305 h) Where a mixing zone is explicitly denied in a NPDES permit, no waters may be
306 used for mixing by the discharge to which the NPDES permit applies, all other
307 provisions of this Section notwithstanding.
- 308
- 309 i) Where an NPDES permit is silent on the matter of a mixing zone, or where no
310 NPDES permit is in effect, the burden of proof shall be on the discharger to
311 demonstrate compliance with this Section in any action brought pursuant to 35 Ill.
312 Adm. Code 304.105.

313

314 (Source: Amended at 31 Ill. Reg. _____, effective _____)

315

316 **SUBPART B: GENERAL USE WATER QUALITY STANDARDS**

317

318 **Section 302.208 Numeric Standards for Chemical Constituents**

- 319
- 320 a) The acute standard (AS) for the chemical constituents listed in subsection (e) shall
321 not be exceeded at any time except as provided in subsection (d).
- 322
- 323 b) The chronic standard (CS) for the chemical constituents listed in subsection (e)
324 shall not be exceeded by the arithmetic average of at least four consecutive
325 samples collected over any period of at least four days, except as provided in
326 subsection (d). The samples used to demonstrate attainment or lack of attainment
327 with a CS must be collected in a manner that assures an average representative of
328 the sampling period. For the metals that have water quality based standards
329 dependent upon hardness, the chronic water quality standard will be calculated
330 according to subsection (e) using the hardness of the water body at the time the
331 metals sample was collected. To calculate attainment status of chronic metals
332 standards, the concentration of the metal in each sample is divided by the
333 calculated water quality standard for the sample to determine a quotient. The
334 water quality standard is attained if the mean of the sample quotients is less than
335 or equal to one for the duration of the averaging period.
- 336
- 337 c) The human health standard (HHS) for the chemical constituents listed in
338 subsection (f) shall not be exceeded when the stream flow is at or above the
339 harmonic mean flow pursuant to Section 302.658 nor shall an annual average,
340 based on at least eight samples, collected in a manner representative of the
341 sampling period, exceed the HHS except as provided in subsection (d).
- 342
- 343 d) In waters where mixing is allowed pursuant to Section 302.102, the following
344 apply:

- 345
 346 1) The AS shall not be exceeded in any waters except for those waters for
 347 which the Agency has approved a zone of initial dilutions (ZID) pursuant
 348 to Section 302.102.
 349
 350 2) The CS shall not be exceeded outside of waters in which mixing is
 351 allowed pursuant to Section 302.102.
 352
 353 3) The HHS shall not be exceeded outside of waters in which mixing is
 354 allowed pursuant to Section 302.102.
 355

356 e) Numeric Water Quality Standards for the Protection of Aquatic Organisms
 357

Constituent	STORET Number	AS (µg/L)	CS (µg/L)
Arsenic (trivalent, dissolved)	22680	360 X 1.0*=360	190 X 1.0*=190
Cadmium (dissolved)	01025	$\exp^{A+B\ln(H)} \times \{1.138672 - [(\ln H)(0.041838)]\}^*$, where A=-2.918 and B=1.128	$\exp^{A+B\ln(H)} \times \{1.101672 - [(\ln H)(0.041838)]\}^*$, where A=-3.490 and B=0.7852
Chromium (hexavalent, total)	01032	16	11
Chromium (trivalent, dissolved)	80357	$\exp^{A+B\ln(H)} \times 0.316^*$, where A=3.688 and B=0.8190	$\exp^{A+B\ln(H)} \times 0.860^*$, where A=1.561 and B=0.8190
Copper (dissolved)	01040	$\exp^{A+B\ln(H)} \times 0.960^*$, where A=-1.464 and B=0.9422	$\exp^{A+B\ln(H)} \times 0.960^*$, where A=-1.465 and B=0.8545
Cyanide	00718	22	5.2

Lead (dissolved)	01049	$\exp^{A+B\ln(H)} \times \{1.46203 - [(\ln H)(0.145712)]\}^*$, where A=-1.301 and B=1.273	$\exp^{A+B\ln(H)} \times \{1.46203 - [(\ln H)(0.145712)]\}^*$, where A=-2.863 and B=1.273
Mercury (dissolved)	71890	2.6 X 0.85*=2.2	1.3 X 0.85*=1.1
Nickel (dissolved)	01065	$\exp^{A+B\ln(H)} \times 0.998^*$, where A=0.5173 and B=0.8460	$\exp^{A+B\ln(H)} \times 0.997^*$, where A=-2.286 and B=0.8460
TRC	500600	19	11
Zinc (dissolved)	01090	$\exp^{A+B\ln(H)} \times 0.978^*$, where A=0.9035 and B=0.8473	$\exp^{A+B\ln(H)} \times 0.986^*$, where A=-0.8165 and B=0.8473
Benzene	78124	4200	860
Ethylbenzene	78113	150	14
Toluene	78131	2000	600
Xylene(s)	81551	920	360

where: $\mu\text{g/L}$ = microgram per liter;
 \exp^x = base natural logarithms raised to the x-power;
 $\ln(H)$ = natural logarithm of Hardness (STORET 00900), and
 $*$ = conversion factor multiplier for dissolved metals

f) Numeric Water Quality Standard for the Protection of Human Health

Constituent	STORET Number	($\mu\text{g/L}$)
Mercury	71900	0.012
Benzene	78124	310

where: $\mu\text{g/L}$ = micrograms per liter

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

Constituent	Unit	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
Phenols	mg/L	32730	0.1
Selenium (total)	mg/L	01147	1.0
Silver (total)	µg/L	01077	5.0
Sulfate	mg/L	00945	500
Total Dissolved Solids	mg/L	70300	1000

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

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h) The following concentrations for sulfate must not be exceeded except in receiving waters for which mixing is allowed pursuant to Section 302.102:

- 1) At any point where water is withdrawn or accessed for purposes of livestock watering, the average of sulfate concentrations must not exceed 2,000 mg/L when measured at a representative frequency over a 30 day period.
- 2) The results of the following equations provide sulfate water quality standards in mg/L for the specified ranges of hardness (in mg/L as CaCO₃) and chloride (in mg/L) and must be met at all times:

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A) If the hardness concentration of receiving waters is greater than or equal to 100 mg/L but less than or equal to 500 mg/L, and if the chloride concentration of waters is greater than or equal to 25 mg/L but less than or equal to 500 mg/L, then:

$$C = [1276.7 + 5.508 (\text{hardness}) - 1.457 (\text{chloride})] * 0.65$$

where:

$$C = \text{sulfate concentration}$$

B) If the hardness concentration of waters is greater than or equal to 100 mg/L but less than or equal to 500 mg/L, and if the chloride concentration of waters is greater than or equal to 5 mg/L but less than 25 mg/L, then:

$$C = [-57.478 + 5.79 (\text{hardness}) + 54.163 (\text{chloride})] * 0.65$$

where:

$$C = \text{sulfate concentration}$$

3) The following sulfate standards must be met at all times when hardness (in mg/L as CaCO₃) and chloride (in mg/L) concentrations other than specified in (h)(2) are present:

A) If the hardness concentration of waters is less than 100 mg/L or chloride concentration of waters is less than 5 mg/L, the sulfate standard is 500 mg/L.

B) If the hardness concentration of waters is greater than 500 mg/L and the chloride concentration of waters is 5 mg/L or greater, the sulfate standard is 2,000 mg/L.

C) If the combination of hardness and chloride concentrations of existing waters are not reflected in subsection (h)(3)(A) or (B), the sulfate standard will be determined on a case-by-case basis in conjunction with an applicable NPDES permitting process.

(Source: Amended at 31 Ill. Reg. _____, effective _____)

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENT

- 1) Heading of the Part: Permits
- 2) Code Citation: 35 Ill. Adm. Code 309
- 3) Section Number: 309.103 Proposed Action: Amend
- 4) Statutory Authority: Implementing Sections 13 and 13.3 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/13, 13.3 and 27]
- 5) A Complete Description of the Subjects and Issues Involved: For a more detailed discussion of these amendments, see the Board's September 20, 2007, opinion and order in docket R07-9: Triennial Review of Sulfate and Total Dissolved Solids Water Quality Standards: Proposed Amendments to 35 Ill. Adm. Code 302.102(b)(6), 302.102(b)(8), 302.102(b)(10), 302.208(g), 309.103(c)(3), 405.109(b)(2)(A), 409.109(b)(2)(B), 406.100(d); Repealer of 35 Ill. Adm. Code 406.203, 406.209, and Part 407; and Proposed New 35 Ill. Adm. Code 302.208(h). The amendments in this rulemaking propose changes to Parts 302, 309, 405, 406, and the repeal of Part 407 and the amendments to all of the Parts in this rulemaking should be read jointly. This rulemaking is intended to fulfill the requirement of the Federal Water Pollution Control Act, 33 USC §1251-1387, also known as the Clean Water Act (CWA), that states must triennially revise and update water quality standards to ensure that standards are protective of public health and welfare, enhance the quality of water and promote the purposes of the CWA. This update is known as a triennial water quality standards review.

Specifically, the amendments to Part 309 propose conforming amendments to clarify that mine discharges are now subject to the water quality standards of Parts 302 and 303.

- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: The regulatory proposal included the Illinois EPA's Technical Support document, included with the Illinois EPA's original filing in this rulemaking, that relied on several published studies and reports. Copies of the reports that the Illinois EPA relied upon are available for review with the Pollution Control Board and are listed below.

Goodfellow, W.L., L.W. Ausley, D.T. Burton, D.L. Denton, P.B. Dorn, D.R. Grothe, M.A. Heber, T.J. Norberg-King, and J.H. Rodgers, Jr. 2000. Major ion toxicity in effluents: a review with permitting recommendations. *Environmental Toxicology and Chemistry*, 19:175-182.

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Pollution Control Board

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NOTICE OF PROPOSED AMENDMENT

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- Soucek, D.J. 2004a. Effects of hardness, chloride, and acclimation on the acute toxicity of sulfate to freshwater invertebrates. Illinois Natural History Survey. Final Report submitted to Illinois Environmental Protection Agency and Illinois Coal Association.
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- Soucek, D.J. 2005b. Effects of water quality on acute and chronic toxicity of sulfate to freshwater bivalves, *Ceriodaphnia dubia*, and *Hyalella azteca*. Illinois Natural History Survey. Third Quarterly Report submitted to U.S. Environmental Protection Agency, Region 5.
- Soucek, D.J. 2006. Effects of water quality on acute and chronic toxicity of sulfate to freshwater bivalves, *Ceriodaphnia dubia*, and *Hyalella azteca*. Illinois Natural History Survey. Final Report submitted to U.S. Environmental Protection Agency, Region 5. CP96543701-0.
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POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENT

of water sulfate concentration on performance, water intake, and carcass characteristics of feedlot steers. *Journal of Animal Science*, 79:2941-2948.

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Patterson, H.H., P.S. Johnson, T.R. Patterson, D.B. Young, and R. Haigh. 2002. Effects of water quality on performance and health of growing steers. *Proceedings, Western Section, American Society of Animal Science*. 53: 217-220.

- 7) Will this rulemaking replace any emergency rulemaking currently in effect? No
- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Does this rulemaking contain incorporations by reference? No
- 10) Are there any other proposed rulemakings pending on this Part? No
- 11) Statement of Statewide Policy Objectives: This proposed rule does not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805/3(b)].
- 12) 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 45 days after the date of publication in the Illinois Register. Comments should reference Docket R07-9 and be addressed to:

Clerk's Office
Illinois Pollution Control Board
100 W. Randolph St., Suite 11-500
Chicago, IL 60601

Interested persons may request copies of the Board's opinion and order by calling the Clerk's office at 312-814-3620, or may download copies from the Board's Web site at www.ipcb.state.il.us.

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENT

For more information contact hearing officer Marie Tipsord at 312/814-4925 or email at tipsordm@ipcb.state.il.us.

13) Initial Regulatory Flexibility Analysis:

- A) Types of small businesses, small municipalities and not for profit corporations affected: The amendment in this rulemaking could affect any small business, small municipality, and not-for-profit organization that has a permit to discharge mine related wastes to waters of the State.
- B) Reporting, bookkeeping or other procedures required for compliance: The proposed amendment does not add any additional reporting or recordkeeping requirements beyond what is already established in the Board's rules.
- C) Types of Professional skills necessary for compliance: No professional skills beyond those currently required by the existing state and federal water pollution control regulations applicable to affected sources will be required.

14) Regulatory Agenda on which this rulemaking was summarized: July 2007

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

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

PART 309
PERMITS

SUBPART A: NPDES PERMITS

Section

- 309.101 Preamble
- 309.102 NPDES Permit Required
- 309.103 Application - General
- 309.104 Renewal
- 309.105 Authority to Deny NPDES Permits
- 309.106 Access to Facilities and Further Information
- 309.107 Distribution of Applications
- 309.108 Tentative Determination and Draft Permit
- 309.109 Public Notice
- 309.110 Contents of Public Notice of Application
- 309.111 Combined Notices
- 309.112 Agency Action After Comment Period
- 309.113 Fact Sheets
- 309.114 Notice to Other Governmental Agencies
- 309.115 Public Hearings on NPDES Permit Applications
- 309.116 Notice of Agency Hearing
- 309.117 Agency Hearing
- 309.118 Agency Hearing File
- 309.119 Agency Action After Hearing
- 309.120 Reopening the Record to Receive Additional Written Comment
- 309.141 Terms and Conditions of NPDES Permits
- 309.142 Water Quality Standards and Waste Load Allocation
- 309.143 Effluent Limitations
- 309.144 Federal New Source Standards of Performance
- 309.145 Duration of Permits
- 309.146 Authority to Establish Recording, Reporting, Monitoring and Sampling Requirements
- 309.147 Authority to Apply Entry and Inspection Requirements
- 309.148 Schedules of Compliance
- 309.149 Authority to Require Notice of Introduction of Pollutants into Publicly Owned Treatment Works
- 309.150 Authority to Ensure Compliance by Industrial Users with Sections 204(b), 307 and 308 of the Clean Water Act
- 309.151 Maintenance and Equipment
- 309.152 Toxic Pollutants
- 309.153 Deep Well Disposal of Pollutants (Repealed)
- 309.154 Authorization to Construct
- 309.155 Sewage Sludge Disposal
- 309.156 Total Dissolved Solids Reporting and Monitoring
- 309.157 Permit Limits for Total Metals
- 309.181 Appeal of Final Agency Action on a Permit Application
- 309.182 Authority to Modify, Suspend or Revoke Permits
- 309.183 Revision of Schedule of Compliance
- 309.184 Permit Modification Pursuant to Variance
- 309.185 Public Access to Information
- 309.191 Effective Date

SUBPART B: OTHER PERMITS

Section	
309.201	Preamble
309.202	Construction Permits
309.203	Operating Permits; New or Modified Sources
309.204	Operating Permits; Existing Sources
309.205	Joint Construction and Operating Permits
309.206	Experimental Permits
309.207	Former Permits (Repealed)
309.208	Permits for Sites Receiving Sludge for Land Application
309.221	Applications - Contents
309.222	Applications - Signatures and Authorizations
309.223	Applications - Registered or Certified Mail
309.224	Applications - Time to Apply
309.225	Applications - Filing and Final Action By Agency
309.241	Standards for Issuance
309.242	Duration of Permits Issued Under Subpart B
309.243	Conditions
309.244	Appeals from Conditions in Permits
309.261	Permit No Defense
309.262	Design, Operation and Maintenance Criteria
309.263	Modification of Permits
309.264	Permit Revocation
309.265	Approval of Federal Permits
309.266	Procedures
309.281	Effective Date
309.282	Severability

~~Appendix 309~~ APPENDIX A References to Previous Rules

AUTHORITY: Implementing Sections 13 and 13.3 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/13, 13.3 and 27].

SOURCE: Adopted in R71-14, at 4 PCB 3, March 7, 1972; amended in R73-11, 12, at 14 PCB 661, December 5, 1974, at 16 PCB 511, April 24, 1975, and at 28 PCB 509, December 20, 1977; amended in R73-11, 12, at 29 PCB 477, at 2 Ill. Reg. 16, p. 20, effective April 20, 1978; amended in R79-13, at 39 PCB 263, at 4 Ill. Reg. 34, p. 159, effective August 7, 1980; amended in R77-12B, at 41 PCB 369, at 5 Ill. Reg. 6384, effective May 28, 1981; amended in R76-21, at 44 PCB 203, at 6 Ill. Reg. 563, effective December 24, 1981; codified at 6 Ill. Reg. 7818; amended in R82-5, 10, at 54 PCB 411, at 8 Ill. Reg. 1612, effective January 18, 1984; amended in R86-44 at 12 Ill. Reg. ~~2495~~2495, effective January 13, 1988; amended in R88-1 at 13 Ill. Reg. 5993, effective April 18, 1989; amended in R88-21(A) at 14 Ill. Reg. 2892, effective February 13, 1990; amended in R91-5 at 16 Ill. Reg. 7339, effective April 27, 1992; amended in R95-22 at 20 Ill. Reg. 5526, effective April 1, 1996; amended in R99-8 at 23 Ill. Reg. 11287, effective August 26, 1999; amended in R02-11 at 27 Ill. Reg. 202, effective December 20, 2002; amended in ~~R07-03-919~~ at ~~31~~28 Ill. Reg. ~~7310~~, effective May 7, 2004; amended in R07-9 at 31 Ill. Reg. _____, effective _____.

SUBPART A: NPDES PERMITS

Section 309.103 Application - General

a) Application Forms

1) An applicant for a National Pollution Discharge Elimination System (NPDES) Permit shall file an application, in accordance with Section ~~309.223 hereof~~, 309.223, on forms provided by the Illinois Environmental Protection Agency (Agency). Such forms shall comprise the NPDES application forms promulgated by the U.S. Environmental Protection Agency for the type of discharge for which an NPDES Permit is being sought and such additional information as the Agency may reasonably require in order to determine that the discharge or proposed discharge will be in compliance with applicable state and federal requirements.

2) In addition to the above application forms, the Agency may require the submission of plans and specifications for treatment works and summaries of design criteria.

3) Effluent toxicity monitoring

A) In addition to the above application forms, the Agency may require, pursuant to Section 39 of the Act, the installation, use, maintenance and reporting of results from monitoring equipment and methods, including biological monitoring. The Agency may require, pursuant to Section 39 of the Act, effluent toxicity testing to show compliance with 35 Ill. Adm. Code 302.621 and 302.630. If this toxicity testing shows the effluent to be toxic, the Agency may require pursuant to Section 39 of the Act further testing and identification of the ~~toxicant(s)~~ toxicants pursuant to 35 Ill. Adm. Code 302.210(a).

B) The following POTWs shall provide the results of valid whole effluent biological toxicity testing to the Agency:

i) All POTWs with design influent flows equal to or greater than one million gallons per day;

ii) All POTWs with approved pretreatment programs or POTWs required to develop a pretreatment program pursuant to 35 Ill. Adm. Code 310.Subpart E;

C) In addition to the POTWs listed in subsection (a)(3)(B), the Agency may require other POTWs to submit the result of toxicity tests with their permit applications, based on consideration of the following factors.

i) The variability of the pollutants or pollutant parameters in the POTW effluent (based on chemical-specific information, the type of treatment facility, and types of industrial contributors);

ii) The dilution of the effluent in the receiving water (ratio of effluent flow to receiving stream flow);

iii) Existing controls on point or nonpoint sources, including total maximum daily load calculations for the waterbody segment and the relative contribution of the POTW;

iv) Receiving stream characteristics, including possible or known water quality impairment, and whether the POTW discharges to a coastal water, one of the Great Lakes, or a water designated as an outstanding natural resource; or

v) Other considerations (including but not limited to the history of toxic impact and compliance problems at the POTW), which the Agency determines could cause or contribute to adverse water quality impacts.

D) The POTWs required under ~~subsections~~subsection (a)(3)(B) or (a)(3)(C) to conduct toxicity testing shall use the methods prescribed at 35 Ill. Adm. Code 302.Subpart F. Such testing must have been conducted since the later of the last NPDES permit reissuance or permit modification pursuant to Section 309.182, 309.183 or 309.184 for any of the reasons listed at 40 CFR 122.62(a) (1994), as amended at 60 Fed. Reg. 33926 effective June 29, 1995, herein incorporated by reference (including no later amendments or editions).

4) All POTWs with approved pretreatment programs shall provide the following information to the Agency: a written technical evaluation of the need to revise local limits pursuant to 35 Ill. Adm. Code 310.210.

BOARD NOTE: Subsections (a)(3)(B) through (a)(4) are derived from 40 CFR 122.21(j) (~~19914~~-.1994).

b) Animal Waste Facilities

An applicant for an NPDES Permit in connection with the operation of an animal waste facility shall complete, sign, and submit an NPDES application in accordance with the provisions of 35 Ill. Adm. Code: Subtitle E, Chapter I.

c) Mining Activities

1) If, as defined by 35 Ill. Adm. Code 402.101, mining activities are to be carried out on a facility for which an NPDES Permit is held or required, the applicant must submit a permit application as required by 35 Ill. Adm. Code 403.103, 403.104 and 405.104. If the facility will have a discharge other than a mine discharge or non-point source mine discharge as defined by 35 Ill. Adm. Code 402.101, the applicant shall also submit an NPDES Permit application in accordance with Section 309.223 on forms supplied by the Agency.

2) As provided by 35 Ill. Adm. Code 403.101, except to the extent contradicted in 35 Ill. Adm. Code: Subtitle D, Chapter I, the rules contained in this Subpart apply only to 35 Ill. Adm. Code: Subtitle D, Chapter I NPDES Permits.

3) As provided by 35 Ill. Adm. Code 406.100, except to the extent provided in 35 Ill. Adm. Code: Subtitle D, Chapter I, the effluent ~~and water quality~~ standards of 35 Ill. Adm. Code ~~302, 303 and 304~~ are inapplicable to mine discharges and non-point source mine discharges.

d) New Discharges

Any person whose discharge will begin after the effective date of this Subpart A or any person having an NPDES Permit issued by the U.S. Environmental Protection Agency for an existing discharge which will substantially change in nature, or increase in volume or frequency, must apply for an NPDES Permit either:

1) No later than 180 days in advance of the date on which such NPDES Permit will be required; or

2) In sufficient time prior to the anticipated commencement of the discharge to insure compliance with the requirements of Section 306 of the Clean Water Act (CWA) (33 U.S.C. USC 1251 et seq), or with any other applicable water quality standards and applicable effluent standards and limitations.

e) Signatures

An application submitted by a corporation shall be signed by a principal executive officer of at least the level of vice president, or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the application form originates. In the case of a partnership or a sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively. In the case of a publicly owned facility, the application shall be signed by either the principal executive officer, ranking elected official, or other duly authorized employee.

(Source: Amended at 31 Ill. Reg. _____, effective _____)

JCAR350309-0713642r01

~~ILLINOIS REGISTER~~ _____

~~NOTICE OF PROPOSED AMENDMENT~~

~~POLLUTION CONTROL BOARD~~

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Deletions	18
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Style change	0
Format changed	0
Total changes	34

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

PART 309
PERMITS

SUBPART A: NPDES PERMITS

10	Section	
11	309.101	Preamble
12	309.102	NPDES Permit Required
13	309.103	Application – General
14	309.104	Renewal
15	309.105	Authority to Deny NPDES Permits
16	309.106	Access to Facilities and Further Information
17	309.107	Distribution of Applications
18	309.108	Tentative Determination and Draft Permit
19	309.109	Public Notice
20	309.110	Contents of Public Notice of Application
21	309.111	Combined Notices
22	309.112	Agency Action After Comment Period
23	309.113	Fact Sheets
24	309.114	Notice to Other Governmental Agencies
25	309.115	Public Hearings on NPDES Permit Applications
26	309.116	Notice of Agency Hearing
27	309.117	Agency Hearing
28	309.118	Agency Hearing File
29	309.119	Agency Action After Hearing
30	309.120	Reopening the Record to Receive Additional Written Comment
31	309.141	Terms and Conditions of NPDES Permits
32	309.142	Water Quality Standards and Waste Load Allocation
33	309.143	Effluent Limitations
34	309.144	Federal New Source Standards of Performance
35	309.145	Duration of Permits
36	309.146	Authority to Establish Recording, Reporting, Monitoring and Sampling Requirements
37		
38	309.147	Authority to Apply Entry and Inspection Requirements
39	309.148	Schedules of Compliance
40	309.149	Authority to Require Notice of Introduction of Pollutants into Publicly Owned Treatment Works
41		
42	309.150	Authority to Ensure Compliance by Industrial Users with Sections 204(b), 307 and 308 of the Clean Water Act
43		

44	309.151	Maintenance and Equipment
45	309.152	Toxic Pollutants
46	309.153	Deep Well Disposal of Pollutants (Repealed)
47	309.154	Authorization to Construct
48	309.155	Sewage Sludge Disposal
49	309.156	Total Dissolved Solids Reporting and Monitoring
50	309.157	Permit Limits for Total Metals
51	309.181	Appeal of Final Agency Action on a Permit Application
52	309.182	Authority to Modify, Suspend or Revoke Permits
53	309.183	Revision of Schedule of Compliance
54	309.184	Permit Modification Pursuant to Variance
55	309.185	Public Access to Information
56	309.191	Effective Date

57

58

SUBPART B: OTHER PERMITS

59

60 Section

61	309.201	Preamble
62	309.202	Construction Permits
63	309.203	Operating Permits; New or Modified Sources
64	309.204	Operating Permits; Existing Sources
65	309.205	Joint Construction and Operating Permits
66	309.206	Experimental Permits
67	309.207	Former Permits (Repealed)
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70	309.222	Applications – Signatures and Authorizations
71	309.223	Applications – Registered or Certified Mail
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73	309.225	Applications – Filing and Final Action By Agency
74	309.241	Standards for Issuance
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76	309.243	Conditions
77	309.244	Appeals from Conditions in Permits
78	309.261	Permit No Defense
79	309.262	Design, Operation and Maintenance Criteria
80	309.263	Modification of Permits
81	309.264	Permit Revocation
82	309.265	Approval of Federal Permits
83	309.266	Procedures
84	309.281	Effective Date
85	309.282	Severability

86

87 309.APPENDIX A References to Previous Rules

88

89 AUTHORITY: Implementing Sections 13 and 13.3 and authorized by Section 27 of the
 90 Environmental Protection Act [415 ILCS 5/13, 13.3 and 27].

91

92 SOURCE: Adopted in R71-14, at 4 PCB 3, March 7, 1972; amended in R73-11, 12, at 14 PCB
 93 661, December 5, 1974, at 16 PCB 511, April 24, 1975, and at 28 PCB 509, December 20, 1977;
 94 amended in R73-11, 12, at 29 PCB 477, at 2 Ill. Reg. 16, p. 20, effective April 20, 1978;
 95 amended in R79-13, at 39 PCB 263, at 4 Ill. Reg. 34, p. 159, effective August 7, 1980; amended
 96 in R77-12B, at 41 PCB 369, at 5 Ill. Reg. 6384, effective May 28, 1981; amended in R76-21, at
 97 44 PCB 203, at 6 Ill. Reg. 563, effective December 24, 1981; codified at 6 Ill. Reg. 7818;
 98 amended in R82-5, 10, at 54 PCB 411, at 8 Ill. Reg. 1612, effective January 18, 1984; amended
 99 in R86-44 at 12 Ill. Reg. 2495, effective January 13, 1988; amended in R88-1 at 13 Ill. Reg.
 100 5993, effective April 18, 1989; amended in R88-21(A) at 14 Ill. Reg. 2892, effective February
 101 13, 1990; amended in R91-5 at 16 Ill. Reg. 7339, effective April 27, 1992; amended in R95-22 at
 102 20 Ill. Reg. 5526, effective April 1, 1996; amended in R99-8 at 23 Ill. Reg. 11287, effective
 103 August 26, 1999; amended in R02-11 at 27 Ill. Reg. 202, effective December 20, 2002; amended
 104 in R03-19 at 28 Ill. Reg. 7310, effective May 7, 2004; amended in R07-9 at 31 Ill. Reg. _____,
 105 effective _____.

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107

SUBPART A: NPDES PERMITS

108

109 **Section 309.103 Application – General**

110

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a) Application Forms

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- 1) An applicant for a National Pollution Discharge Elimination System (NPDES) Permit shall file an application, in accordance with Section 309.223 ~~hereof~~, on forms provided by the Illinois Environmental Protection Agency (Agency). Such forms shall comprise the NPDES application forms promulgated by the U.S. Environmental Protection Agency for the type of discharge for which an NPDES Permit is being sought and such additional information as the Agency may reasonably require in order to determine that the discharge or proposed discharge will be in compliance with applicable state and federal requirements.
- 2) In addition to the above application forms, the Agency may require the submission of plans and specifications for treatment works and summaries of design criteria.
- 3) Effluent toxicity monitoring
 - A) In addition to the above application forms, the Agency may

130 require, pursuant to Section 39 of the Act, the installation, use,
131 maintenance and reporting of results from monitoring equipment
132 and methods, including biological monitoring. The Agency may
133 require, pursuant to Section 39 of the Act, effluent toxicity testing
134 to show compliance with 35 Ill. Adm. Code 302.621 and 302.630.
135 If this toxicity testing shows the effluent to be toxic, the Agency
136 may require pursuant to Section 39 of the Act further testing and
137 identification of the toxicantstoxieant(s) pursuant to 35 Ill. Adm.
138 Code 302.210(a).

139
140 B) The following POTWs shall provide the results of valid whole
141 effluent biological toxicity testing to the Agency:

- 142
143 i) All POTWs with design influent flows equal to or greater
144 than one million gallons per day;
145
146 ii) All POTWs with approved pretreatment programs or
147 POTWs required to develop a pretreatment program
148 pursuant to 35 Ill. Adm. Code 310.Subpart E;

149
150 C) In addition to the POTWs listed in subsection (a)(3)(B), the
151 Agency may require other POTWs to submit the result of toxicity
152 tests with their permit applications, based on consideration of the
153 following factors.

- 154
155 i) The variability of the pollutants or pollutant parameters in
156 the POTW effluent (based on chemical-specific
157 information, the type of treatment facility, and types of
158 industrial contributors);
159
160 ii) The dilution of the effluent in the receiving water (ratio of
161 effluent flow to receiving stream flow);
162
163 iii) Existing controls on point or nonpoint sources, including
164 total maximum daily load calculations for the waterbody
165 segment and the relative contribution of the POTW;
166
167 iv) Receiving stream characteristics, including possible or
168 known water quality impairment, and whether the POTW
169 discharges to a coastal water, one of the Great Lakes, or a
170 water designated as an outstanding natural resource; or
171
172 v) Other considerations (including but not limited to the

173 history of toxic impact and compliance problems at the
174 POTW), which the Agency determines could cause or
175 contribute to adverse water quality impacts.
176

177 D) The POTWs required under subsections (a)(3)(B) or
178 (a)(3)(C) to conduct toxicity testing shall use the methods
179 prescribed at 35 Ill. Adm. Code 302.Subpart F. Such testing must
180 have been conducted since the later of the last NPDES permit
181 reissuance or permit modification pursuant to Section 309.182,
182 309.183 or 309.184 for any of the reasons listed at 40 CFR
183 122.62(a) (1994), as amended at 60 Fed. Reg. 33926 effective June
184 29, 1995, herein incorporated by reference (including no later
185 amendments or editions).
186

187 4) All POTWs with approved pretreatment programs shall provide the
188 following information to the Agency: a written technical evaluation of the
189 need to revise local limits pursuant to 35 Ill. Adm. Code 310.210.
190

191 BOARD NOTE: Subsections (a)(3)(B) through (a)(4) are derived from 40
192 CFR 122.21(j) (1994).
193

194 b) Animal Waste Facilities

195 An applicant for an NPDES Permit in connection with the operation of an animal
196 waste facility shall complete, sign, and submit an NPDES application in
197 accordance with the provisions of 35 Ill. Adm. Code: Subtitle E, Chapter I.
198

199 c) Mining Activities
200

201 1) If, as defined by 35 Ill. Adm. Code 402.101, mining activities are to be
202 carried out on a facility for which an NPDES Permit is held or required,
203 the applicant must submit a permit application as required by 35 Ill. Adm.
204 Code 403.103, 403.104 and 405.104. If the facility will have a discharge
205 other than a mine discharge or non-point source mine discharge as defined
206 by 35 Ill. Adm. Code 402.101, the applicant shall also submit an NPDES
207 Permit application in accordance with Section 309.223 on forms supplied
208 by the Agency.
209

210 2) As provided by 35 Ill. Adm. Code 403.101, except to the extent
211 contradicted in 35 Ill. Adm. Code: Subtitle D, Chapter I, the rules
212 contained in this Subpart apply only to 35 Ill. Adm. Code: Subtitle D,
213 Chapter I NPDES Permits.
214

215 3) As provided by 35 Ill. Adm. Code 406.100, except to the extent provided

216 in 35 Ill. Adm. Code: Subtitle D, Chapter I, the effluent ~~and water quality~~
217 standards of 35 Ill. Adm. Code ~~302, 303 and 304~~ are inapplicable to mine
218 discharges and non-point source mine discharges.
219

220 d) New Discharges

221 Any person whose discharge will begin after the effective date of this Subpart A
222 or any person having an NPDES Permit issued by the U.S. Environmental
223 Protection Agency for an existing discharge which will substantially change in
224 nature, or increase in volume or frequency, must apply for an NPDES Permit
225 either:
226

227 1) No later than 180 days in advance of the date on which such NPDES
228 Permit will be required; or
229

230 2) In sufficient time prior to the anticipated commencement of the discharge
231 to insure compliance with the requirements of Section 306 of the Clean
232 Water Act (CWA) (33 ~~USC~~U.S.C. 1251 et seq), or with any other
233 applicable water quality standards and applicable effluent standards and
234 limitations.
235

236 e) Signatures

237 An application submitted by a corporation shall be signed by a principal executive
238 officer of at least the level of vice president, or his duly authorized representative,
239 if such representative is responsible for the overall operation of the facility from
240 which the discharge described in the application form originates. In the case of a
241 partnership or a sole proprietorship, the application shall be signed by a general
242 partner or the proprietor, respectively. In the case of a publicly owned facility,
243 the application shall be signed by either the principal executive officer, ranking
244 elected official, or other duly authorized employee.
245

246 (Source: Amended at 31 Ill. Reg. _____, effective _____)

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>
302.102	Amend
302.208	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: For a more detailed discussion of these amendments, see the Board's September 20, 2007, opinion and order in docket R07-9: Triennial Review of Sulfate and Total Dissolved Solids Water Quality Standards: Proposed Amendments to 35 Ill. Adm. Code 302.102(b)(6), 302.102(b)(8), 302.102(b)(10), 302.208(g), 309.103(c)(3), 405.109(b)(2)(A), 409.109(b)(2)(B), 406.100(d); Repealer of 35 Ill. Adm. Code 406.203, 406.209, and Part 407; and Proposed New 35 Ill. Adm. Code 302.208(h). The amendments in this rulemaking propose changes to Parts 302, 309, 405, 406, and the repeal of Part 407 and the amendments to all of the Parts in this rulemaking should be read jointly. This rulemaking is intended to fulfill the requirement of the Federal Water Pollution Control Act, 33 USC §1251-1387, also known as the Clean Water Act (CWA), that states must triennially revise and update water quality standards to ensure that standards are protective of public health and welfare, enhance the quality of water and promote the purposes of the CWA. This update is known as a triennial water quality standards review.

Specifically, the amendments to Part 302 propose deletion of the existing general use water quality standards for sulfate and total dissolved solids and the addition of two acute aquatic toxicity criterion equations for sulfate at specified ranges of hardness and chlorides in the proposed new Section 302.208(h). These equations allow for the calculation of site-specific sulfate standards based on water quality characteristics. In addition, the proposal includes a numeric chronic sulfate standard of 2000 mg/L applicable to areas where water is withdrawn or accessed for livestock watering. The amendments to Section 302.102 propose to allow mixing in certain low flow streams where adequate upstream dilution exists in the receiving stream at the time of discharge. However, the amendments allow mixing in no more than 50% of the flow for streams where the dilution ratio is less than 3 to 1.

- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: The regulatory proposal included the Illinois EPA's Technical Support

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

document, included with the Illinois EPA's original filing in this rulemaking, that relied on several published studies and reports. Copies of the reports that the Illinois EPA relied upon are available for review with the Pollution Control Board and are listed below.

Goodfellow, W.L., L.W. Ausley, D.T. Burton, D.L. Denton, P.B. Dorn, D.R. Grothe, M.A. Heber, T.J. Norberg-King, and J.H. Rodgers, Jr. 2000. Major ion toxicity in effluents: a review with permitting recommendations. *Environmental Toxicology and Chemistry*, 19:175-182.

Mount, D.R., D.D. Gulley, J.R. Hackett, T.D. Garrison, and J.M. Evans. 1997. Statistical models to predict the toxicity of major ions to *Ceriodaphnia dubia*, *Daphnia magna* and *Pimephales promelas* (Fathead Minnows). *Environmental Toxicology and Chemistry*, 16(10): 2009-2019.

Soucek, D.J. 2004a. Effects of hardness, chloride, and acclimation on the acute toxicity of sulfate to freshwater invertebrates. Illinois Natural History Survey. Final Report submitted to Illinois Environmental Protection Agency and Illinois Coal Association.

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NOTICE OF PROPOSED AMENDMENTS

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Loneragan, G.H., J.J. Wagner, D.H. Gould, F.B. Garry, and M.A. Thoren, 2001, Effects of water sulfate concentration on performance, water intake, and carcass characteristics of feedlot steers. Journal of Animal Science, 79:2941-2948.

Braul, L. and B. Kirychuk. 2001. Water Quality and Cattle. Prairie Farm Rehabilitation Office, Agriculture and Agri-Food Canada. Publication ENH- 1 11-2001-10.

Patterson, H.H., P.S. Johnson, E.H. Ward, and R.N. Gates. 2004. Effects of sulfates in water on performance of cow-calf pairs. Proceedings, Western Section, American Society of Animal Science. 55: 265-268.

Patterson, H.H., P.S. Johnson, T.R. Patterson, D.B. Young, and R. Haigh. 2002. Effects of water quality on performance and health of growing steers. Proceedings, Western Section, American Society of Animal Science. 53: 217-220.

- 7) Will this rulemaking replace any emergency rulemaking currently in effect? No
- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Does this rulemaking contain incorporations by reference? No
- 10) Are there any other proposed rulemakings pending on this Part? No
- 11) Statement of Statewide Policy Objectives: This proposed rule does not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805/3(b)].
- 12) 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 45 days after the date of publication in the *Illinois Register*. Comments should reference Docket R07-9 and be addressed to:

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

Clerk's Office
Illinois Pollution Control Board
100 W. Randolph St., Suite 11-500
Chicago, IL 60601

Interested persons may request copies of the Board's opinion and order by calling the Clerk's office at 312-814-3620, or may download copies from the Board's Web site at www.ipcb.state.il.us.

For more information contact hearing officer Marie Tipsord at 312/814-4925 or email at tipsordm@ipcb.state.il.us.

13) Initial Regulatory Flexibility Analysis:

- A) Types of small businesses, small municipalities and not for profit corporations affected: The amendments in this rulemaking could affect any small business, small municipality, and not-for-profit organization that has a permit to discharge wastes to waters of the State.
- B) Reporting, bookkeeping or other procedures required for compliance: The proposed amendments do not add any additional reporting or recordkeeping requirements beyond what is already established in the Board's rules.
- C) Types of Professional skills necessary for compliance: No professional skills beyond those currently required by the existing state and federal water pollution control regulations applicable to affected sources will be required.

14) Regulatory Agenda on which this rulemaking was summarized: July 2007

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

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENT

- 1) Heading of the Part: State and NPDES Permits
- 2) Code Citation: 35 Ill. Adm. Code 405
- 3) Section Number: 405.109 Proposed Action: Amend
- 4) Statutory Authority: Implementing Sections 12 and 13 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/12, 13, and 27]
- 5) A Complete Description of the Subjects and Issues Involved: For a more detailed discussion of these amendments, see the Board's September 20, 2007, opinion and order in docket R07-9: Triennial Review of Sulfate and Total Dissolved Solids Water Quality Standards: Proposed Amendments to 35 Ill. Adm. Code 302.102(b)(6), 302.102(b)(8), 302.102(b)(10), 302.208(g), 309.103(c)(3), 405.109(b)(2)(A), 409.109(b)(2)(B), 406.100(d); Repealer of 35 Ill. Adm. Code 406.203, 406.209, and Part 407; and Proposed New 35 Ill. Adm. Code 302.208(h). The amendments in this rulemaking propose changes to Parts 302, 309, 405, 406, and the repeal of Part 407 and the amendments to all of the Parts in this rulemaking should be read jointly. This rulemaking is intended to fulfill the requirement of the Federal Water Pollution Control Act, 33 USC §1251-1387, also known as the Clean Water Act (CWA), that states must triennially revise and update water quality standards to ensure that standards are protective of public health and welfare, enhance the quality of water and promote the purposes of the CWA. This update is known as a triennial water quality standards review.

Specifically, the amendments to Part 405 are conforming amendments that are intended to ensure that discharges from abandoned mine related facilities and mining activities are subject to the applicable Subtitle C water quality standards.

- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: The regulatory proposal included the Illinois EPA's Technical Support document, included with the Illinois EPA's original filing in this rulemaking, that relied on several published studies and reports. Copies of the reports that the Illinois EPA relied upon are available for review with the Pollution Control Board and are listed below.

Goodfellow, W.L., L.W. Ausley, D.T. Burton, D.L. Denton, P.B. Dorn, D.R. Grothe, M.A. Heber, T.J. Norberg-King, and J.H. Rodgers, Jr. 2000. Major ion toxicity in effluents: a review with permitting recommendations. *Environmental Toxicology and Chemistry*, 19:175-182.

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POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENT

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Braul, L. and B. Kirychuk. 2001. *Water Quality and Cattle*. Prairie Farm Rehabilitation Office, Agriculture and Agri-Food Canada. Publication ENH- 1 11-2001-10.

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- 7) Will this rulemaking replace any emergency rulemaking currently in effect? No
- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Does this rulemaking contain incorporations by reference? No
- 10) Are there any other proposed rulemakings pending on this Part? No
- 11) Statement of Statewide Policy Objectives: This proposed rule does not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805/3(b)].
- 12) 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 45 days after the date of publication in the Illinois Register. Comments should reference Docket R07-9 and be addressed to:

Clerk's Office
Illinois Pollution Control Board
100 W. Randolph St., Suite 11-500
Chicago, IL 60601

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POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENT

For more information contact hearing officer Marie Tipsord at 312/814-4925 or email at tipsordm@ipcb.state.il.us.

13) Initial Regulatory Flexibility Analysis:

- A) Types of small businesses, small municipalities and not for profit corporations affected: The amendment in this rulemaking could affect any small business, small municipality, and not-for-profit organization that has a permit to discharge mine related wastes to waters of the State.
- B) Reporting, bookkeeping or other procedures required for compliance: The proposed amendment does not add any additional reporting or recordkeeping requirements beyond what is already established in the Board's rules.
- C) Types of Professional skills necessary for compliance: No professional skills beyond those currently required by the existing state and federal water pollution control regulations applicable to affected sources will be required.

14) Regulatory Agenda on which this rulemaking was summarized: July 2007

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

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE D: MINE RELATED WATER POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD

PART 405
STATE AND NPDES PERMITS

Section

- 405.100 Preamble
 - 405.101 Special Conditions: Agency Guidance Document
 - 405.102 Standard for Permit Issuance or Certification
 - 405.103 Permit Modification When New Regulations are Adopted
 - 405.104 Permit Applications
 - 405.105 Surface Drainage Control
 - 405.106 Refuse Disposal
 - 405.107 Experimental Permits for Refuse Disposal
 - 405.108 Permit for Use of Acid-producing Mine Refuse
 - 405.109 Abandonment Plan
 - 405.110 Cessation, Suspension or Abandonment
 - 405.111 Emergency Procedures To Control Pollution
 - 405.112 Mine Entrances
 - 405.113 Permit ~~Area~~Appendix A~~References~~Area
- 405.APPENDIX A References to Previous Rules

AUTHORITY: Implementing Sections 12 and 13 and authorized by Section 27 of the Environmental Protection Act ~~+(415 ILCS 5/12, 13, and 27-(2006)).~~]

SOURCE: Adopted in R76-20, R77-10, 39 PCB 196, at 4 Ill. Reg. 34, p. 164, effective August 7, 1980; codified at 5 Ill. Reg. 8527; amended in R83-6A at 8 Ill. Reg. 13267, effective July 16, 1984; amended in R07-9 at 31 Ill. Reg. , effective .

Section 405.109 Abandonment Plan

- a) A state or NPDES permit shall include an abandonment plan as a condition.
- b) An abandonment plan shall be incorporated into the permit by reference if it:
 - 1) Includes a time schedule establishing that the abandonment plan will be executed and completed within a reasonable time after abandonment considering any potential adverse impact on the environment pending completion of the plan and the amount of time required to carry out the steps in the plan; one year is assumed to be a reasonable time unless the operator demonstrates that a longer time is reasonable; and
 - 2) Shows that the mine related facilities and mining activities will be abandoned so as not to cause a violation of the Act or this Chapter.

~~A) If the plan includes a discharge which will remain after abandonment which will not meet the requirements of 35 Ill. Adm. Code 406.202, and if the permit included water quality based conditions under 35 Ill. Adm. Code 406.203 during active mining, the discharge shall be deemed to meet 35 Ill. Adm. Code 406.202 with respect to total dissolved solids, chloride, sulfate, iron and manganese if it will meet the requirements of 35 Ill. Adm. Code 406.106 and 406.203(c)(1) and (c)(2); or~~

~~B) If the plan includes impoundments which will remain after abandonment and which will not meet the water quality standards of 35 Ill. Adm. Code 302.204 or 302.208, with respect to total dissolved solids, chloride, sulfate, iron, manganese and pH, such fact shall not prevent approval of the plan if the impoundment will meet the requirements of 35 Ill. Adm. Code 406.106 and 406.203(e) (1) and (e) (2).~~

c) If the abandonment plan does not meet the standard of paragraph subsection (b) the Agency may either deny the permit or issue it with an abandonment plan modified by conditions subject to Section 405.101.

d) The time limit provided by paragraph subsection (b) (1) is inapplicable to abandonment plans for surface coal mines which are approved as reclamation plans under the Surface Coal Mining Land Conservation and Reclamation Act, ~~(Ill. Rev. Stat. 1983, ch. 96 1/2, par. 7902.03).~~ [225 ILCS 720].

e) Any abandonment plan constituting a substantial change from the permitted abandonment plan is a revised abandonment plan.

f) A permittee shall apply for a new or revised or supplemental NPDES or ~~state~~State permit prior to implementation of a revised abandonment plan within the time limits provided by 35 Ill. Adm. Code 403.104(c).

~~g) An abandonment plan incorporated into a permit pursuant to showing under 35 Ill. Adm. Code 406.203 shall include conditions pursuant to 35 Ill. Adm. Code 406.203(e) (1) and (e) (2).~~

(Source: Amended at 31 Ill. Reg. _____, effective _____)

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~~NOTICE OF PROPOSED AMENDMENT~~

~~POLLUTION CONTROL BOARD~~

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Insertions	11	
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Total changes	27	

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

5 PART 405
6 STATE AND NPDES PERMITS
7

8 Section

- 9 405.100 Preamble
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11 405.102 Standard for Permit Issuance or Certification
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18 405.109 Abandonment Plan
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20 405.111 Emergency Procedures To Control Pollution
21 405.112 Mine Entrances
22 405.113 Permit Area
23 405.APPENDIX A References to Previous Rules

24
25 AUTHORITY: Implementing Sections 12 and 13 and authorized by Section 27 of the
26 Environmental Protection Act [415 ILCS 5/12, 13, and 27].
27

28 SOURCE: Adopted in R76-20, R77-10, 39 PCB 196, at 4 Ill. Reg. 34, p. 164, effective August
29 7, 1980; codified at 5 Ill. Reg. 8527; amended in R83-6A at 8 Ill. Reg. 13267, effective July 16,
30 1984; amended in R07-9 at 31 Ill. Reg. _____, effective _____.
31

32 **Section 405.109 Abandonment Plan**
33

- 34 a) A state or NPDES permit shall include an abandonment plan as a condition.
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36 b) An abandonment plan shall be incorporated into the permit by reference if it:
37
38 1) Includes a time schedule establishing that the abandonment plan will be
39 executed and completed within a reasonable time after abandonment
40 considering any potential adverse impact on the environment pending
41 completion of the plan and the amount of time required to carry out the
42 steps in the plan; one year is assumed to be a reasonable time unless the
43 operator demonstrates that a longer time is reasonable; and

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- 2) Shows that the mine related facilities and mining activities will be abandoned so as not to cause a violation of the Act or this Chapter;
 - A) ~~If the plan includes a discharge which will remain after abandonment which will not meet the requirements of 35 Ill. Adm. Code 406.202, and if the permit included water quality based conditions under 35 Ill. Adm. Code 406.203 during active mining, the discharge shall be deemed to meet 35 Ill. Adm. Code 406.202 with respect to total dissolved solids, chloride, sulfate, iron and manganese if it will meet the requirements of 35 Ill. Adm. Code 406.106 and 406.203(c)(1) and (c)(2); or~~
 - B) ~~If the plan includes impoundments which will remain after abandonment and which will not meet the water quality standards of 35 Ill. Adm. Code 302.204 or 302.208, with respect to total dissolved solids, chloride, sulfate, iron, manganese and pH, such fact shall not prevent approval of the plan if the impoundment will meet the requirements of 35 Ill. Adm. Code 406.106 and 406.203(c)(1) and (c)(2).~~
- c) If the abandonment plan does not meet the standard of subsection~~paragraph~~ (b) the Agency may either deny the permit or issue it with an abandonment plan modified by conditions subject to Section 405.101.
- d) The time limit provided by subsection~~paragraph~~ (b)(1) is inapplicable to abandonment plans for surface coal mines which are approved as reclamation plans under the Surface Coal Mining Land Conservation and Reclamation Act [225 ILCS 720], (Ill. Rev. Stat. 1983, ch. 96½, par. 7902.03).
- e) Any abandonment plan constituting a substantial change from the permitted abandonment plan is a revised abandonment plan.
- f) A permittee shall apply for a new or revised or supplemental NPDES or State~~state~~ permit prior to implementation of a revised abandonment plan within the time limits provided by 35 Ill. Adm. Code 403.104(c).
- g) ~~An abandonment plan incorporated into a permit pursuant to showing under 35 Ill. Adm. Code 406.203 shall include conditions pursuant to 35 Ill. Adm. Code 406.203(e)(1) and (e)(2).~~

(Source: Amended at 31 Ill. Reg. _____, effective _____)

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- 1) Heading of the Part: Mine Waste Effluent and Water Quality Standards
- 2) Code Citation: 35 Ill. Adm. Code 406
- 3)

<u>Section Numbers:</u>	<u>Proposed Action:</u>
406.100	Amend
406.203	Repeal
406.209	Repeal
- 4) Statutory Authority: Implementing Sections 12 and 13 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/12, 13, and 27]
- 5) A Complete Description of the Subjects and Issues Involved: For a more detailed discussion of these amendments, see the Board's September 20, 2007, opinion and order in docket R07-9: Triennial Review of Sulfate and Total Dissolved Solids Water Quality Standards: Proposed Amendments to 35 Ill. Adm. Code 302.102(b)(6), 302.102(b)(8), 302.102(b)(10), 302.208(g), 309.103(c)(3), 405.109(b)(2)(A), 409.109(b)(2)(B), 406.100(d); Repealer of 35 Ill. Adm. Code 406.203, 406.209, and Part 407; and Proposed New 35 Ill. Adm. Code 302.208(h). The amendments in this rulemaking propose changes to Parts 302, 309, 405, 406, and the repeal of Part 407 and the amendments to all of the Parts in this rulemaking should be read jointly. This rulemaking is intended to fulfill the requirement of the Federal Water Pollution Control Act, 33 USC Sections 1251-1387, also known as the Clean Water Act (CWA), that states must triennially revise and update water quality standards to ensure that standards are protective of public health and welfare, enhance the quality of water and promote the purposes of the CWA. This update is known as a triennial water quality standards review.

Specifically, the amendments to Part 406 propose changes to clarify that mine related discharges are now subject to the Board's general water quality standards. In conformance with the other amendments in the general R07-9 rulemaking, the amendments to Part 406 propose to repeal the total dissolved solids standards in Section 406.203. The Board is proposing to repeal Section 406.209 as that Section becomes obsolete with the repeal of Section 406.203.
- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: The regulatory proposal included the Illinois EPA's Technical Support document, included with the Illinois EPA's original filing in this rulemaking, that relied on several published studies and reports. Copies of the reports that the Illinois EPA relied upon are available for review with the Pollution Control Board and are listed below.

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POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

Publication No. 3-A, p. 548.

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Braul, L. and B. Kirychuk. 2001. Water Quality and Cattle. Prairie Farm Rehabilitation Office, Agriculture and Agri-Food Canada. Publication ENH- 1 11-2001-10.

Patterson, H.H., P.S. Johnson, E.H. Ward, and R.N. Gates. 2004. Effects of sulfates in water on performance of cow-calf pairs. *Proceedings, Western Section, American Society of Animal Science*. 55: 265-268.

Patterson, H.H., P.S. Johnson, T.R. Patterson, D.B. Young, and R. Haigh. 2002. Effects of water quality on performance and health of growing steers. *Proceedings, Western Section, American Society of Animal Science*. 53: 217-220.

- 7) Will this rulemaking replace any emergency rulemaking currently in effect? No
- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Does this rulemaking contain incorporations by reference? No
- 10) Are there any other proposed rulemakings pending on this Part? No
- 11) Statement of Statewide Policy Objectives: This proposed rule does not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805/3(b)].
- 12) 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 45 days after the date of publication in the *Illinois Register*. Comments should reference Docket R07-9 and be addressed to:

Clerk's Office
Illinois Pollution Control Board
100 W. Randolph St., Suite 11-500

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

Chicago, IL 60601

Interested persons may request copies of the Board's opinion and order by calling the Clerk's office at 312-814-3620, or may download copies from the Board's Web site at www.ipcb.state.il.us.

For more information contact hearing officer Marie Tipsord at 312/814-4925 or email at tipsordm@ipcb.state.il.us.

13) Initial Regulatory Flexibility Analysis:

- A) Types of small businesses, small municipalities and not for profit corporations affected: The amendments in this rulemaking could affect any small business, small municipality, and not-for-profit organization that has a permit to discharge mine related wastes to waters of the State.
- B) Reporting, bookkeeping or other procedures required for compliance: The proposed amendments do not add any additional reporting or recordkeeping requirements beyond what is already established in the Board's rules.
- C) Types of Professional skills necessary for compliance: No professional skills beyond those currently required by the existing state and federal water pollution control regulations applicable to affected sources will be required.

14) Regulatory Agenda on which this rulemaking was summarized: July 2007

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

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE D: MINE RELATED WATER POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD

PART 406
MINE WASTE EFFLUENT AND WATER QUALITY STANDARDS

SUBPART A: EFFLUENT STANDARDS

Section	
406.100	Preamble
406.101	Averaging
406.102	Sampling, Reporting and Monitoring
406.103	Background Concentrations
406.104	Dilution
406.105	Commingling of Waste Streams
406.106	Effluent Standards for Mine Discharges
406.107	Offensive Discharges
406.108	Non-Pointpoint Source Mine Discharges
406.109	Effluent Standards for Coal Mine Discharge from Reclamation Areas
406.110	Alternate Effluent Standards for Coal Mine Discharges During Precipitation Events

SUBPART B: WATER QUALITY STANDARDS

Section	
406.201	Temporary Exemption from Section 406.105 (Repealed)
406.202	Violation of Water Quality Standards
406.203	TDS Related Permit Conditions (Repealed)
406.204	Good Mining Practices
406.205	Contact with Disturbed Areas
406.206	Retention and Control of Exposed Waters
406.207	Control of Discharge Waters
406.208	Unconventional Practices
406.209	Expiration of Former Exemptions (Repealed)

~~Appendix A~~ References ~~406.~~ APPENDIX A References to Previous Rules

AUTHORITY: Implementing Sections 12 and 13 and authorized by Section 27 of the Environmental Protection Act ~~([415 ILCS 5/12, 13, 13 and 27-(2006))].~~

SOURCE: Adopted in R76-20, R77-10, 39 PCB 196, at 4 Ill. ~~Reg.~~ Reg. 34, p. 164, effective August 7, 1980; codified at 5 Ill. Reg. 8527; emergency amendment in R83-6B at 7 Ill. Reg. 8386, effective July 5, 1983, for a maximum of 150 days; amended in R83-6B at 7 Ill. Reg. 14510, effective October 19, 1983; amended in R83-6A at 8 Ill. Reg. 13239, effective July 16, 1984; amended in R84-29 at 11 Ill. Reg. 12899, effective July 27, 1987; amended in R07-9 at ~~31~~ Ill. Reg. ~~Reg.~~ Reg. ~~—~~ —, effective —.

SUBPART A: EFFLUENT STANDARDS

Section 406.100 Preamble

a) Part 406 applies to mine discharges and non-point source mine discharges as defined by Section 402.101.

b) Other discharges, including sanitary sewers, are regulated under Subtitle C, Chapter I: Water Pollution.

c) A facility which has another discharge will be subject to both Subtitle C and Subtitle D. Subtitle D governs mining activities, including mine discharges and non-point source mine discharges. Subtitle C governs other discharges.

d) Except to the extent provided in this Part 406, ~~Parts 302, 303 and Part~~ 304 of ~~subtitle~~ Subtitle C is ~~are~~ inapplicable to mine discharges and non-point source mine discharges.

(Source: Amended at 31 Ill. Reg. _____, effective _____)

SUBPART B: WATER QUALITY STANDARDS

Section 406.203 TDS Related Permit Conditions (Repealed)

~~a) This Section sets forth procedures by which water quality based permit conditions for total dissolved solids, chloride, sulfate, iron and manganese may be established by the Agency for coal mine discharges. These procedures apply instead of Section 406.202 whenever a permit applicant elects to proceed under this Section. A permittee must comply with water quality based permit conditions for total dissolved solids, chloride, sulfate, iron and manganese established pursuant to this Section instead of Section 406.202. Public hearings may be required pursuant to 35 Ill. Adm. Code 309.115.~~

~~b) An applicant may elect to proceed under this Section by providing the required information as part of a new or renewed or supplemental state or NPDES permit application.~~

~~c) The Agency shall establish permit conditions under this Section if all of the following conditions are met:~~

~~1) The applicant proves to the Agency that the discharge will not cause an adverse effect on the environment in and around the receiving stream, by either:~~

~~A) Demonstrating that the discharge will contain a concentration less than or equal to 3500 mg/l sulfate and 1000 mg/l chloride, or,~~

~~B) Through actual stream studies.~~

~~2) The applicant proves to the Agency that the discharge will not adversely affect any public water supply, and~~

~~3) The applicant proves to the Agency that it is utilizing good mining practices designed to minimize discharge of total dissolved solids, chloride, sulfate iron and manganese.~~

~~d) The Agency may promulgate under 35 Ill. Adm. Code 405.101(c) a code of good mining practices consistent with the definition in Section 406.204. Compliance with the code of good mining practices shall be prima facie evidence that the applicant is utilizing good mining practices within the meaning of paragraph (c)(3).~~

~~e) Whenever the Agency issues a permit based on this Section, it shall include such conditions as may be necessary to ensure that:~~

- ~~1) There is no adverse effect on the environment in and around the receiving stream;~~
- ~~2) The discharge does not adversely affect any public water supply; and~~
- ~~3) The permittee utilizes good mining practices designed to minimize discharge of total dissolved solids, chloride, sulfate, iron and manganese.~~
- ~~f) Whenever the Agency issues a permit pursuant to this Section, it may include as a condition a requirement that the permittee submit to the Agency effluent data for total dissolved solids, chloride, sulfate, iron and manganese.~~

(Source: Repealed at 31 Ill. Reg. _____, effective _____)

Section 406.209 Expiration of Former Exemptions (Repealed)

- ~~a) Exemptions from the water quality standards granted prior to the effective date of Section 406.203 shall continue until any of the following events occurs:~~
 - ~~1) Any State or NPDES permit for the facility expires, or is revoked, renewed or reissued;~~
 - ~~2) Any State or NPDES permit for the facility is modified, unless the Agency expressly continues the exemption pending review pursuant to paragraph (b);~~
 - ~~3) An application period set pursuant to paragraph (b) expires with no application having been received;~~
 - ~~4) The Agency grants or denies a permit under Section 406.203; or~~
 - ~~5) January 1, 1987, the final date for continuation of former exemptions.~~
- ~~b) The Agency may require applications for review pursuant to Section 406.203 by notifying individual permittees and setting a date for application not less than 15 months after the date notice is given.~~
- ~~e) If an appeal to the Board is filed, exemptions continue until the Board enters a final order disposing of the appeal.~~

(Source: Repealed at 31 Ill.

Reg. _____, effective _____)

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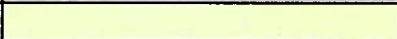
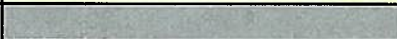
ILLINOIS REGISTER

NOTICE OF PROPOSED AMENDMENT

~~POLLUTION CONTROL BOARD~~

Document comparison done by DeltaView on Thursday, September 27, 2007 2:59:15 PM

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Document 2	file:///I:/Input/35-406-JCARr01.doc
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<u>Insertion</u>	
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Statistics:	
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Insertions	13
Deletions	41
Moved from	0
Moved to	0
Style change	0
Format changed	0
Total changes	54

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

5 PART 406
6 MINE WASTE EFFLUENT AND WATER QUALITY STANDARDS
7

8 SUBPART A: EFFLUENT STANDARDS
9

10 Section

- 11 406.100 Preamble
12 406.101 Averaging
13 406.102 Sampling, Reporting and Monitoring
14 406.103 Background Concentrations
15 406.104 Dilution
16 406.105 Commingling of Waste Streams
17 406.106 Effluent Standards for Mine Discharges
18 406.107 Offensive Discharges
19 406.108 Non-point Source Mine Discharges
20 406.109 Effluent Standards for Coal Mine Discharge from Reclamation Areas
21 406.110 Alternate Effluent Standards for Coal Mine Discharges During Precipitation
22 Events
23

24 SUBPART B: WATER QUALITY STANDARDS
25

26 Section

- 27 406.201 Temporary Exemption from Section 406.105 (Repealed)
28 406.202 Violation of Water Quality Standards
29 406.203 TDS Related Permit Conditions (Repealed)
30 406.204 Good Mining Practices
31 406.205 Contact with Disturbed Areas
32 406.206 Retention and Control of Exposed Waters
33 406.207 Control of Discharge Waters
34 406.208 Unconventional Practices
35 406.209 Expiration of Former Exemptions (Repealed)
36

37 406.APPENDIX A References to Previous Rules
38

39 AUTHORITY: Implementing Sections 12 and 13 and authorized by Section 27 of the
40 Environmental Protection Act [415 ILCS 5/12, 13 and 27].
41

42 SOURCE: Adopted in R76-20, R77-10, 39 PCB 196, at 4 Ill. Reg. 34, p. 164, effective August
43 7, 1980; codified at 5 Ill. Reg. 8527; emergency amendment in R83-6B at 7 Ill. Reg. 8386,

44 effective July 5, 1983, for a maximum of 150 days; amended in R83-6B at 7 Ill. Reg. 14510,
45 effective October 19, 1983; amended in R83-6A at 8 Ill. Reg. 13239, effective July 16, 1984;
46 amended in R84-29 at 11 Ill. Reg. 12899, effective July 27, 1987; amended in R07-9 at 31 Ill.
47 Reg. _____, effective _____.

48
49 **SUBPART A: ~~GENERAL EFFLUENT AND WATER QUALITY STANDARDS~~**

50
51 **Section 406.100 Preamble**

- 52
- 53 a) Part 406 applies to mine discharges and non-point source mine discharges as
54 defined by Section 402.101.
 - 55
 - 56 b) Other discharges, including sanitary sewers, are regulated under Subtitle C,
57 Chapter I: Water Pollution.
 - 58
 - 59 c) A facility which has another discharge will be subject to both Subtitle C and
60 Subtitle D. Subtitle D governs mining activities, including mine discharges and
61 non-point source mine discharges. Subtitle C governs other discharges.
 - 62
 - 63 d) Except to the extent provided in this Part 406, ~~Part Parts 302, 303 and 304 of~~
64 ~~Subtitlesubtitle C is~~are inapplicable to mine discharges and non-point source mine
65 discharges.

66
67 (Source: Amended at 31 Ill. Reg. _____, effective _____)

68
69 **SUBPART B: WATER QUALITY STANDARDS**

70
71 **Section 406.203 TDS Related Permit Conditions (Repealed)**

- 72
- 73 a) ~~This Section sets forth procedures by which water quality based permit conditions~~
74 ~~for total dissolved solids, chloride, sulfate, iron and manganese may be~~
75 ~~established by the Agency for coal mine discharges. These procedures apply~~
76 ~~instead of Section 406.202 whenever a permit applicant elects to proceed under~~
77 ~~this Section. A permittee must comply with water quality based permit~~
78 ~~conditions for total dissolved solids, chloride, sulfate, iron and manganese~~
79 ~~established pursuant to this Section instead of Section 406.202. Public hearings~~
80 ~~may be required pursuant to 35 Ill. Adm. Code 309.115.~~
 - 81
 - 82 b) ~~An applicant may elect to proceed under this Section by providing the required~~
83 ~~information as part of a new or renewed or supplemental state or NPDES permit~~
84 ~~application.~~
 - 85
 - 86 e) ~~The Agency shall establish permit conditions under this Section if all of the~~

87 following conditions are met:
88

89 1) The applicant proves to the Agency that the discharge will not cause an
90 adverse effect on the environment in and around the receiving stream, by
91 either:

92
93 A) Demonstrating that the discharge will contain a concentration less
94 than or equal to 3500 mg/l sulfate and 1000 mg/l chloride; or,

95
96 B) Through actual stream studies.
97

98 2) The applicant proves to the Agency that the discharge will not adversely
99 affect any public water supply; and

100
101 3) The applicant proves to the Agency that it is utilizing good mining
102 practices designed to minimize discharge of total dissolved solids,
103 chloride, sulfate iron and manganese.
104

105 d) The Agency may promulgate under 35 Ill. Adm. Code 405.101(e) a code of good
106 mining practices consistent with the definition in Section 406.204. Compliance
107 with the code of good mining practices shall be prima facie evidence that the
108 applicant is utilizing good mining practices within the meaning of paragraph
109 (e)(3).
110

111 e) Whenever the Agency issues a permit based on this Section, it shall include such
112 conditions as may be necessary to ensure that:

113
114 1) There is no adverse effect on the environment in and around the receiving
115 stream;

116
117 2) The discharge does not adversely affect any public water supply; and

118
119 3) The permittee utilizes good mining practices designed to minimize
120 discharge of total dissolved solids, chloride, sulfate, iron and manganese.
121

122 f) Whenever the Agency issues a permit pursuant to this Section, it may include as a
123 condition a requirement that the permittee submit to the Agency effluent data for
124 total dissolved solids, chloride, sulfate, iron and manganese.
125

126 (Source: Repealed at 31 Ill. Reg. _____, effective _____)
127

128 **Section 406.209 Expiration of Former Exemptions (Repealed)**
129

- 130 a) ~~Exemptions from the water quality standards granted prior to the effective date of~~
131 ~~Section 406.203 shall continue until any of the following events occurs:~~
132
133 1) ~~Any State or NPDES permit for the facility expires, or is revoked,~~
134 ~~renewed or reissued;~~
135
136 2) ~~Any State or NPDES permit for the facility is modified, unless the Agency~~
137 ~~expressly continues the exemption pending review pursuant to paragraph~~
138 ~~(b);~~
139
140 3) ~~An application period set pursuant to paragraph (b) expires with no~~
141 ~~application having been received;~~
142
143 4) ~~The Agency grants or denies a permit under Section 406.203; or~~
144
145 5) ~~January 1, 1987, the final date for continuation of former exemptions.~~
146
147 b) ~~The Agency may require applications for review pursuant to Section 406.203 by~~
148 ~~notifying individual permittees and setting a date for application not less than 15~~
149 ~~months after the date notice is given.~~
150
151 e) ~~If an appeal to the Board is filed, exemptions continue until the Board enters a~~
152 ~~final order disposing of the appeal.~~
153

154 (Source: Repealed at 31 Ill. Reg. _____, effective _____)

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED REPEALER

- 1) Heading of the Part: Compliance and Effective Dates
- 2) Code Citation: 35 Ill. Adm. Code 407
- 3)

<u>Section Numbers:</u>	<u>Proposed Action:</u>
407.101	Repeal
407.102	Repeal
407.103	Repeal
407.104	Repeal
407.APPENDIX A	Repeal
- 4) Statutory Authority: Authorized by Section 27 and implementing Sections 12 and 13 of the Illinois Environmental Protection Act [415 ILCS 5/12, 13, and 27]
- 5) A Complete Description of the Subjects and Issues Involved: For a more detailed discussion of these amendments, see the Board's September 20, 2007, opinion and order in docket R07-9: Triennial Review of Sulfate and Total Dissolved Solids Water Quality Standards: Proposed Amendments to 35 Ill. Adm. Code 302.102(b)(6), 302.102(b)(8), 302.102(b)(10), 302.208(g), 309.103(c)(3), 405.109(b)(2)(A), 409.109(b)(2)(B), 406.100(d); Repealer of 35 Ill. Adm. Code 406.203, 406.209, and Part 407; and Proposed New 35 Ill. Adm. Code 302.208(h). The amendments in this rulemaking propose changes to Parts 302, 309, 405, 406, and the repeal of Part 407 and the amendments to all of the Parts in this rulemaking should be read jointly. This rulemaking is intended to fulfill the requirement of the Federal Water Pollution Control Act, 33 USC §1251-1387, also known as the Clean Water Act (CWA), that states must triennially revise and update water quality standards to ensure that standards are protective of public health and welfare, enhance the quality of water and promote the purposes of the CWA. This update is known as a triennial water quality standards review.

The Board is proposing to repeal Part 407, as it serves no purpose in the issuance of NPDES permits for mine related facilities and mining activities.
- 6) Will this rulemaking replace any emergency rulemaking currently in effect? No
- 7) Does this rulemaking contain an automatic repeal date? No
- 8) Does this rulemaking contain incorporations by reference? No
- 9) Are there any other proposed rulemakings pending on this Part? No



POLLUTION CONTROL BOARD

NOTICE OF PROPOSED REPEALER

- 10) Statement of Statewide Policy Objectives: This proposed repealed rule does not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805/3(b)].
- 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 45 days after the date of publication in the *Illinois Register*. Comments should reference Docket R07-9 and be addressed to:

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Illinois Pollution Control Board
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For more information contact hearing officer Marie Tipsord at 312/814-4925 or email at tipsordm@ipcb.state.il.us.

- 12) Initial Regulatory Flexibility Analysis:
- A) Types of small businesses, small municipalities and not for profit corporations affected: The repeal of this rule could affect any small business, small municipality, and not-for-profit organization that has a permit to discharge coal mine wastewater to waters of the State.
- 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: July 2007

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

PCB

35 ILLINOIS ADMINISTRATIVE CODE 407

SUBTITLE D

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE D: MINE RELATED WATER POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD

PART 407
COMPLIANCE AND EFFECTIVE DATES (REPEALED)

SOURCE: Repealed in R07-9 at 31 Ill. Reg. _____, effective _____.