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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

NOV 08 2004

IN THE MATTER OF:)
)
) 05-10
PROPOSED AMENDMENTS TO 35 ILL.) R04
ADM. CODE 302 AND 303) (Rulemaking Water)

STATE OF ILLINOIS
Pollution Control Board

NOTICE OF FILING

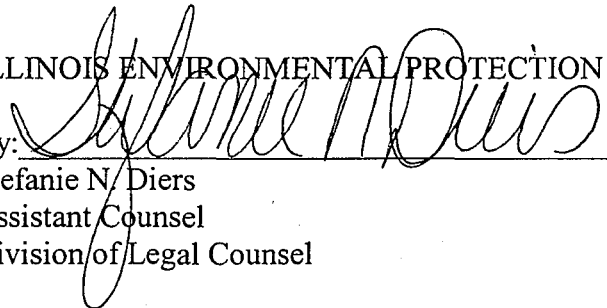
Dorothy Gunn, Clerk
Pollution Control Board
100 West Randolph Street
Suite 11-500
Chicago, Illinois

Legal Service
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, Illinois 62702-1271

Mathew Dunn
Illinois Attorney General's Office
Environmental Control Division
James R. Thompson Center
100 West Randolph Street
Chicago, Illinois 60601

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the
Pollution Control Board the **AGENCY REGULATORY PROPOSAL, MOTION FOR
ACCEPTANCE, and APPEARANCE** of the Illinois Environmental Protection Agency, a
copy of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By: 
Stefanie N. Diers
Assistant Counsel
Division of Legal Counsel

Dated: November 5, 2004

Illinois Environmental Protection Agency
1021 North Grand Avenue East
Springfield, Illinois 62794-9276
(217) 782-5544

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MOTION FOR ACCEPTANCE

NOW COMES the Illinois Environmental Protection Agency ("Illinois EPA"), by and through its attorney, Stefanie N. Diers, and pursuant to 35 Ill. Adm. Code 102.106, 102.200, and 102.202, moves the Illinois Pollution Control Board ("Board") accept for hearing the Illinois EPA's proposal for amendment to 35 Ill. Adm. Code Part 302 and 303. This regulatory includes:

1. Notice of Filing;
2. Appearance of Attorney for the Illinois Environmental Protection Agency;
3. Director Cipriano's Statement of Submittal;
4. Certification of Origination;
5. Statement of Reasons and Exhibits;
6. Agency Analysis of Economic and Budgetary Effects of Proposed Rulemaking;
7. Notice of Proposal and Proposed Amendments;
8. Computer disc containing Notice of Proposal and Proposed Amendments;
and
9. Proof of Service.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By 

Stefanie N. Diers

Assistant Counsel

Division of Legal Counsel

Dated: November 5, 2004

Illinois Environmental Protection Agency

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APPEARANCE

The undersigned, as one of its attorneys, hereby enters her **APPEARANCE** on
behalf of Respondent, Illinois Environmental Protection Agency.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By: 

Stefanie N. Diers
Assistant Counsel
Division of Legal Counsel

Dated: November 5, 2004

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IN THE MATTER OF:)
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PROPOSED AMENDMENTS TO 35 ILL.) R04-0510
ADM. CODE 302 AND 303) (Rulemaking Water)

AGENCY PROPOSAL OF REGULATIONS

Pursuant to Section 27 of the Illinois Environmental Protection Act (415 ILCS 5/27), the Illinois Environmental Protection Agency hereby moves the Illinois Pollution Control Board to adopt the attached proposed regulations.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By: _____

Renee Cipriano
Renee Cipriano
Director

Dated: November 5th, 2004

Illinois Environmental Protection Agency
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

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PROPOSED AMENDMENTS TO 35 ILL.) R04-
ADM. CODE 302 AND 303) (Rulemaking Water)

05-10

CERTIFICATION OF ORIGINATION

NOW COMES the Illinois Environmental Protection Agency to certify in accordance with 35 Ill. Adm. Code 102.202(h) that this proposal amends the most recent version of the Table of Contents to Part 302 and 303 as published on the Pollution Control Board's web site.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By: 

Stefanie N. Diers
Assistant Counsel
Division of Legal Counsel

Dated: November 5, 2004

Illinois Environmental Protection Agency
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD NOV 08 2004

IN THE MATTER OF:)
)
PROPOSED AMENDMENTS TO 35 ILL.) R04-
CODE 302 AND 303) (Rulemaking Water)

STATE OF ILLINOIS
Pollution Control Board

STATEMENT OF REASONS

The Illinois Environmental Protection Agency ("Illinois EPA") hereby submits its Statement of Reasons for the above-captioned proceeding to the Illinois Pollution Control Board ("Board") pursuant to Section 27 of the Illinois Environmental Protection Act ("Act"), 415 ILCS 5/27 (2002), and 35 Ill. Adm. Code Section 102.200 and 102.202.

I. STATUTORY BASIS

This is a regulatory proposal submitted pursuant to Sections 27 and 28 of the Act. See 415 ILCS 5/27 and 28. It is not being proposed as an identical in substance, fast track or federally required rule. In addition, this proposal is being filed as a general (rather than emergency or preemptory) rulemaking pursuant to Section 5-40 of the Illinois Administrative Procedure Act. See 5 ILCS 100/5-40. Section 27 of the Act confers general substantive rulemaking authority on the Board. The contents of this regulatory proposal are within these general rulemaking powers.

Pursuant to the United States Environmental Protection Agency ("U.S. EPA"), Illinois does not have water quality standards for bacteria that comply with the requirements of Section 303(i) of the Clean Water Act. See 33 U.S.C. Section 1313; See also 40 C.F.R. Part 131. Section 303(i) of the Clean Water Act requires that no later than April 10, 2004, "each state having coastal recreation waters shall adopt and submit to the Administrator water quality criteria and standards for the coastal recreation waters of the

state for those pathogens indicators for which the Administrator has published criteria under section 304(A)". See 33 U.S.C. 1313 & 1314. This summer U.S. EPA proposed Water Quality Standards for Coastal and Great Lakes Recreation Waters. See 40 C.F.R. Part 131. If U.S. EPA's proposal for Water Quality Standards for Coastal and Great Lakes Recreation Waters is adopted as a final rule, the Federal water quality criteria will apply to Illinois' coastal recreation waters unless Illinois adopts bacteria standards for coastal recreation waters prior to the final adoption of U.S. EPA's proposal¹. Id.

Pursuant to Section 303 of the Clean Water Act, it is the primary responsibility of the states to set water quality standards for intrastate waters and submit changes to those standards to U.S. EPA for approval. See 33 U.S.C. Section 1313. Section 13(a) of the Environmental Protection Act specifies the rulemaking authority of the Board to adopt regulations which prescribe "Water quality standards specifying, among other things, the maximum short-term and long-term concentrations of various contaminants in the waters, and the minimum permissible concentrations of dissolved oxygen and other desirable matter in the waters, and the temperature of such waters." See 415 ILCS 5/13(a)(1).

Section 303 of the Clean Water Act also provides that water quality standards shall include the designated use or uses to be made of the water and water quality criteria necessary to protect those uses. See 33 U.S.C. Section 1313. The designated uses to be considered by the States in establishing water quality standards are specified in the Clean Water Act. Those designated uses are as follows: public water supplies, propagation of fish and wildlife, recreation, agriculture uses, industrial uses and navigation. Id. States are to review their water quality standards at least once every three years, and, if

¹ Pursuant to the Beach Act, coastal recreation waters are defined as : (1) Great Lakes; and (2) marine coastal waters (including coastal estuaries) that are designated under Section 303(c) by the state for the use of swimming, bathing, surfing, or similar activities. See 33 U.S.C. 1362.

appropriate, revise or adopt new standards. Id. Revisions and adopted new standards must be submitted to U.S. EPA and U.S. EPA must approve or disapprove any new or revised standards. Id.

II. REGULATORY PROPOSAL

A. Purpose and Effect of Regulatory Proposal

1. Background: Bacteria

On March 23, 2004 a letter was sent to U.S. EPA from Ms. Marcia Willhite, Bureau Chief for the Illinois EPA's Bureau of Water, confirming that Illinois EPA would propose *Escherichia coli* (E.coli) bacteria water quality standards for Lake Michigan beaches to the Illinois Pollution Control Board by September 30, 2004. (See Exhibit D).

The changes to the Lake Michigan standards are necessary in order to comply with Section 303(i) of the Clean Water Act, also known as the Beaches Environmental Assessment and Coastal Health Act. ("Beach Act"). See 33 U.S.C. Section 1313. The Beach Act applies to coastal recreational waters, which include Great Lakes waters and requires, among other things, a Clean Beaches Plan. The Clean Beaches Plan includes two major goals of promoting recreational water quality programs nationwide and creating scientific improvements that support timely recreational water monitoring and reporting. The Beach Act requires bacteria standards for the coastal recreation waters of the State for those pathogens and pathogen indicators for which the U.S. EPA Administrator has published criteria.

Also, Illinois EPA is proposing bacteria water quality standards for Illinois' portion of the Mississippi River. The proposed changes for Illinois' portion of the Mississippi River stem from an agreement initiated by U.S. EPA regarding negotiations

with the Sierra Club in June 2004. U.S. EPA seeks to have all states on the upper Mississippi River adopt E. coli standards. According to U.S. EPA, if a state does not follow through with its commitment to adopt E. coli standards for the Mississippi River, U.S. EPA will, if necessary, promulgate water quality standards for them. Illinois has committed to U.S. EPA it will initiate its rulemaking process to adopt E. coli standards by September 30, 2004.

In 1986, U.S. EPA published Ambient Water Quality Criteria for Bacteria-1986. This document contains U.S. EPA's current recommended water quality criteria for bacteria to protect people from gastrointestinal illness in recreational waters, i.e. water designated for primary contact recreation or similar full body contact uses. Primary contact recreation is typically defined by States to encompass activities that could be expected to result in the ingestion of or immersion in water, such as swimming, water skiing, surfing, kayaking, or any other activity where immersion in the water is likely. The main route of human exposure to illness-causing organisms in recreational water is through accidental ingestion of fecally contaminated water while engaging in these activities. U.S. EPA believes that E. coli is the best indicator organism for assessing the risk of acute gastrointestinal illnesses caused by the incidental ingestion of fecally contaminated recreational water body.

2. History of the Lake Michigan Basin Water Quality Standards and Existing Mississippi River Site Specific Water Quality Standards

The Lake Michigan Basin Water Quality Standard for fecal coliform has not been revised since December 24, 1997. No site-specific standards exist for the Mississippi River. Illinois' existing fecal coliform rules are not being revised with this proposal.

3. Regulatory Language of the Proposal: Proposed Bacteria Standard

The Illinois EPA is proposing to make three changes to the Lake Michigan Basin bacteria water quality standards. First, a definition will be provided for “designated bathing beach waters”. Second, the rule will only apply during the recreational season, May through October, since bacterial limits are intended to protect humans during whole body contact activities that occur only during the warmer months. Third, the rule will establish a geometric mean and single sample maximum for E-coli standards. U.S. EPA guidance pertaining to the National Criteria indicates that a geometric mean has the most direct relationship to risk over the course of the recreational season and a single sample maximum is the best value against which to compare individual measurements.

Proposed changes to 35 Ill. Adm. Code Part 302 are presented and explained below.

**TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE C: WATER POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
PART 302
WATER QUALITY STANDARDS**

SUBPART E: LAKE MICHIGAN BASIN WATER QUALITY STANDARDS

Section 302.501 Scope, Applicability and Definitions

“Designated Bathing Beach Waters” means any waters of the Lake Michigan Basin that during the recreational season of May through October, are heavily used for bathing, swimming, surfing or other similar water contact activities and may have a life guard or bathhouse facilities. These waters have public parking or other public facilities for beach access.

This definition is needed to describe the recreational season and to establish what is a “designated bathing beach”.

Section 302.505 ~~Fecal Coliform~~ Bacteria

Bacteria standards apply during the months of May through October:

- a) Based on a minimum of five samples taken over not more than a 30-day period, fecal coliform (~~STORET Number 31616~~) must not exceed a geometric mean of 20 per 100 mL in the Open Waters of Lake Michigan as defined in Section 302.501. The remaining waters of the Lake Michigan Basin must not exceed a geometric mean of 200 per 100 ml, nor shall more than 10% of the samples during any 30 day period exceed 400 per 100 mL; and
- b) Based on a minimum of five samples taken over not more than a thirty day period, *Escherichia coli* (E. coli) must not exceed a geometric mean of 126 cells per 100 mL or a single sample maximum of 235 cells per 100 mL in the Open Waters of Lake Michigan and in all Designated Bathing Beach Waters of the Lake Michigan Basin. In other waters of the Lake Michigan Basin, a minimum of five samples taken over not more than a thirty day period may not exceed a geometric mean of E. coli of 126 cells per 100 ml or a single sample maximum of 298 cells per 100 mL.

This subsection imposes an E. coli standard in addition to the fecal coliform standard in the Lake Michigan Basin. The E. coli standard of a geometric mean of 126 cells per 100 mL and single sample maximum of 235 cells per 100 mL must be met in the open waters of Lake Michigan and in all Designated Bathing Beach Waters of the Lake Michigan Basin. The single sample maximum of 235 cells per 100 mL was chosen to recognize the fact that Open Waters and Designated Bathing Beaches should be afforded the highest level of protection based on the frequency of use. The single sample maximum of 298 cells per 100mL was chosen to recognize that other waters of Lake Michigan need to be protected, but do not need to be protected to the same extent of more frequently used waters. Also, the reference to a STORET number in the existing rule is deleted because U.S. EPA no longer maintains the former system of parameter codes to identify the specific substance regulated.

Illinois EPA is proposing to make four additions to the Water Use Designations and Site Specific Water Quality Standards. Illinois EPA is proposing to add an E. coli

standard to the existing fecal coliform standard for Illinois' portion of the Mississippi River.

Proposed changes to 35 Ill. Adm. Code Part 303 are presented and explained below.

**TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE C: WATER POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
PART 303
WATER USE DESIGNATIONS AND SITE SPECIFIC WATER QUALITY
STANDARDS**

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

Section 303.334 Mississippi River North E. coli

In addition to the standards of Section 302.209, the main stem Mississippi River from the Wisconsin border to the Rock River shall meet the following E. coli standard. During the months May through October, based on a minimum of five samples taken over not more than a thirty day period, *Escherichia coli* (E. coli) must not exceed a geometric mean of 126 cells per 100 mL or a single sample maximum of 298 cells per 100 mL.

Section 303.344 Mississippi River North Central E. coli

In addition to the standards of Section 302.209, the main stem Mississippi River from the Rock River to the Illinois River shall meet the following E. coli standard. During the months May through October, based on a minimum of five samples taken over not more than a thirty day period, *Escherichia coli* (E. coli) must not exceed a geometric mean of 126 cells per 100 mL or a single sample maximum of 298 cells per 100 mL.

Section 303.354 Mississippi River South Central E. coli

In addition to the standards of Section 302.209, the main stem Mississippi River from the Illinois River to the Kaskaskia River shall meet the following E. coli standard. During the months May through October, based on a minimum of five samples taken over not more than a thirty day period, *Escherichia coli* (E. coli) must not exceed a geometric mean of 126 cells per 100 mL or a single sample maximum of 298 cells per 100 mL.

Section 303.364 Mississippi River South E. coli

In addition to the standards of Section 302.209, the main stem Mississippi River from the Kaskaskia River to the Ohio River shall meet the following E. coli standard. During the

months May through October, based on a minimum of five samples taken over not more than a thirty day period, *Escherichia coli* (E. coli) must not exceed a geometric mean of 126 cells per 100 mL or a single sample maximum of 298 cells per 100 mL.

These four sections are added to impose additional bacteria requirements applicable to the Mississippi River. These sections impose an E. coli standard for the Mississippi River in addition to the fecal coliform standard that must be met in all General Use Waters. The E. coli standard of a geometric mean of 126 cells per 100 mL and a single sample maximum of 298 cells per 100 mL must be met in the Mississippi River. The single sample maximum corresponds to Moderate Full Body Contact Recreation degree of swimming use. The single sample maximum of 298 cells per 100 mL was chosen since the Mississippi River does not have the frequency of use as intense as a Designated Beach Area. Other Mississippi River States already have or will be expected to adopt similar standards for their portion of the river.

B. Facts in Support.

Basis for Bacteria Standards.

In 1986, U.S. EPA published Ambient Water Quality Criteria for Bacteria-1986. This document contains U.S. EPA's current recommended water quality criteria to protect individuals from gastrointestinal illness in recreational waters. The main route of exposure to illness-causing organisms in recreational waters is through accidental ingestion of fecally contaminated water while engaging in activities that could be expected to result in ingestion or immersion in water. U.S. EPA conducted epidemiological studies and evaluated the use of several organisms as indicators, including fecal coliform, E. coli and enterococci. U.S. EPA recommended the use of E.coli for fresh recreational waters because levels of these organisms were more accurate

predictors of acute gastrointestinal illness levels than levels of fecal coliform. In U.S. EPA's epidemiological studies, E-coli exhibited the strongest correlation to swimming-associated gastroenteritis in fresh waters. According to U.S. EPA, fecal coliform bacteria is sometimes detected where fecal contamination is absent, possibly resulting in inaccurate assessments of recreational safety.

C. Technical Feasibility and Economic Justification

1. Technical Feasibility

Illinois EPA does not anticipate new technology requirements by this rulemaking.

2. Economic Justification

As no additional regulatory actions or treatment will be established by this proposal, it will not have a negative impact on any existing sources.

D. Affected Facilities and Outreach

Facilities discharging pollutants could be indirectly affected by this proposed rule since water quality standards are used in determining water quality based effluent limits in National Pollutant Discharge Elimination System (NPDES) permits.

Beach managers and businesses in beach areas also may be indirectly affected by this proposed rule since water quality standards are used in making decisions regarding beach advisories and closures. However, since the Illinois Department of Public Health already uses the E. coli standard to regulate designated bathing beaches, no actual new impact is likely.

On September 14, 2004, Illinois EPA sent copies of the draft regulatory proposal to:

Illinois Rural Water Association
Illinois-American Water Company

MWRDGC
Illinois Municipal League
IERG
Environmental Law and Policy
Sierra Club, Illinois Chapter
Prairie Rivers Network
Illinois Department of Natural Resources
Illinois Association of Wastewater Agencies
U.S. Fish and Wildlife
U.S. EPA, Region V
Lake Michigan Federation

On September 21, 2004, the Illinois EPA sent copies of the draft regulatory proposal to the Illinois Department of Public Health.

III. Synopsis of Testimony

Scott Twait is from the Water Quality Standards Unit in the Bureau of Water. Mr. Twait's testimony will address the basis for proposing these changes to the Lake Michigan Basin and Mississippi River. Mr. Twait will explain the geometric mean and single sample maximum proposed by Illinois EPA.

Illinois EPA has requested that a representative from U.S. EPA be present at the hearing before the Illinois Pollution Control Board to answer technical questions about Illinois EPA's proposal.

IV. Supporting Documents

- Exhibit A: U.S. EPA, 1986, Ambient Water Quality Criteria for Bacteria-19986. U.S. Environmental Protection Agency. EPA-440/5-84-002.
- Exhibit B: Beaches and Environmental Assessment and Coastal Heath Act
- Exhibit C: 40 CFR Part 131 Water Quality Standards for Coastal and Great Lakes Recreation Water; Proposed Rule
- Exhibit D: Letter of March 23, 2004 from Illinois EPA to Ms. JoLynn of USEPA

Exhibit E: Letter of June 25, 2004 from U.S. EPA to Ozark Chapter of the Sierra Club

Exhibit F: November 2003 Draft Implementation Guidance for Ambient Water Quality Criteria for Bacteria

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By 

Stefanie N. Diers
Assistant Counsel
Division of Legal Counsel

Date: November 5, 2004
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