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STATE OF ILLINOIS
Pollution Control Board

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
PROPOSED AMENDMENTS TO) R 02-19
AMMONIA NITROGEN STANDARDS) (Rulemaking-Water)
35 ILL. ADM. CODE 302.212, 302.213,)
AND 304.122)

PREFILED TESTIMONY OF ROBERT MOSHER

QUALIFICATIONS AND INTRODUCTION

My name is Robert Mosher and I am currently the Manager of the Water Quality Standards Section in the Division of Water Pollution Control at the Illinois Environmental Protection Agency ("Illinois EPA"). I have been with the Illinois EPA in excess of 16 years. Almost all of that time has been spent in my current capacity where my primary responsibility is the development and implementation of water quality standards. I have a Masters Degree in Zoology from Eastern Illinois University where I specialized in stream ecology.

My testimony will cover four topics. First, I will provide some background information concerning the instant proposal before the Illinois Pollution Control Board ("Board") and the Illinois EPA's involvement in the development of that proposal. Second, I will provide a testimony on the Illinois EPA's opinion regarding the general concepts contained in the Illinois Association of Wastewater Agency's ("IAWA") proposal. Third, I will provide some specific comments on recommended changes or corrections to IAWA's proposal. Finally, I will address the Illinois EPA's intentions for implementing this proposal if it is adopted by the Board.

BACKGROUND

As part of my duties as Manager of the Water Quality Standards Section, I served on the committee led by the United States Environmental Protection Agency (U.S. EPA) in the development of its new ammonia criteria which was finalized in 1999.¹ Along with other Illinois EPA staff members, I was also consulted by IAWA during the course of development of these regulations. Face-to-face meetings and telephone conferences were held with IAWA and Illinois EPA offered comments on several occasions to drafts of these proposed rules. Those comments have largely been incorporated into the proposal you see before you today. The Illinois EPA also forwarded IAWA's proposal to U.S. EPA Region V for its review prior to submittal to the Board. Our review of the final version submitted to the Board on January 17, 2002, finds that it substantially follows the 1999 National Criteria Document (NCD). The Illinois EPA believes that the NCD and this proposal represent the state-of-the art in ammonia water quality standards.

In addition to discussing the proposal for amending the ammonia water quality standard, Illinois EPA also held some discussions with IAWA about the types of changes that would be necessary to make to the Illinois EPA's implementation rules (found in 35 Ill. Adm. Code Part 355) if the Board's ammonia nitrogen regulations are amended as provided in IAWA's proposal. A rough draft was provided to IAWA of how we felt Part 355 would have to be amended if the Board were to adopt the draft of IAWA's proposal that was under discussion at that time. Some changes have been made to IAWA's proposal since this draft was made and those changes as well as any

¹ See, 1999 Update of Ambient Water Quality Criteria for Ammonia (referred to hereinafter as 1999 National Criteria Document).

other changes the Board makes to IAWA's proposal would have to be taken into account in developing final amendments to the Illinois EPA's existing Part 355.

IAWA'S PROPOSAL

A vital component of U.S. EPA's new NCD for ammonia is the protection of early life stages of aquatic life. In order to do so, stricter water quality standards are recommended when those life stages are present. The IAWA proposal also recognizes the importance of this goal by setting the summer season conservatively (March through October) in order to protect the vast majority of Illinois species. Where species exist that would have early life stages present during the November through February period, the new regulations would allow the Illinois EPA to apply protective standards at other times.

Based on IAWA's incorporation of Illinois EPA comments and adherence to the federal criteria in development of its proposal, the Illinois EPA is generally in support of this rulemaking. The Illinois EPA has several minor issues it would like to point out for the Record and for the Board's information in consideration of this proposal which are outlined below.

Statement of Reasons

The Illinois EPA would like to clarify several aspects of IAWA's Statement of Reasons in support of this rulemaking proposal that might otherwise lead to confusion on the part of the Board or the public. First, on page one of IAWA's Statement of Reasons, IAWA explains the provisions contained in the current and proposed 35 Ill. Adm. Code 302.212. IAWA's statement that the existing Section 302.212 "also contains standards for un-ionized ammonia, with calculations to determine acute and chronic

standards” is somewhat confusing. Statement of Reasons at 1. That section does contain standards for acute and chronic un-ionized ammonia nitrogen; however, the calculations are used to convert the un-ionized ammonia to total ammonia nitrogen.

In discussing the background information which led to the Board’s current ammonia nitrogen water quality standards, IAWA’s Statement of Reasons, IAWA states that “The rulemaking [R94-1(B), promulgating the existing ammonia water quality standards] was based on U.S. EPA’s then current NCD for ammonia, ‘Ambient Water Quality Criteria for Ammonia’ issued in 1984.” Statement of Reasons at 3. This statement is not entirely accurate. Although the Illinois EPA reviewed the NCD and the data set involved in order to develop the standard amended in December 1996, we relied on an approach that differed significantly from that in the 1984 NCD. We did not propose the use of a formula as did the NCD, but rather had simple winter and summer numeric values as the standards. We also added new toxicity studies to the existing database.

The Illinois EPA would also like to clarify another statement made by IAWA in the Statement of Reasons in which they state “To IAWA’s knowledge, no party has obtained relief using the EMW [Effluent Modified Waters] provision.” Statement of Reasons at 4. The Illinois EPA applied the EMW provision in the Board’s rules to a number of facilities between the time of the adoption of the standard and the development of Agency implementation rules in Part 355. Since the adoption of the Agency rules, and implementation of the application process to receive an EMW, no facility has received an EMW designation.

Regulatory Proposal

IAWA's regulatory proposal proposes changes to three sections of the Board's regulations: 35 Ill. Adm. Code 302.212, 302.213, and 304.122. The Board correctly has altered the caption on IAWA's proposal to reflect the specific sections IAWA proposes to amend. The Illinois EPA would also like to suggest some other minor changes or corrections to the language of IAWA's regulatory proposal.

In Section 302.212(b), IAWA has stricken the parenthetical "(as N: STORET Number 00612)." For clarification and to retain consistency with the rest of the Section, Illinois EPA recommends that this phrase be retained; however, the STORET number should be changed from 00612 to 00610 (the proper STORET number for total ammonia).

In Section 302.212(b), the word "Exceedance" should be changed to "Attainment" to conform to the wording of subsection 302.212(c).

Section 302.212(b) should also be clarified to indicate that all equations in this Section result in a standard expressed as a concentration of mg/L. This can be done by inserting the phrase "in mg/L" at the end of the first sentence of this subsection.

Section 302.212(c)(1) should be changed to read "The acute standard of total ammonia nitrogen (in mg/L) shall" to conform to the wording of the rest of the subsection.

In Sections 302.212(c)(2) and (3), the Illinois EPA recommends that the Board consider changing the word "determined" to "evaluated." The basis for this recommendation is to indicate that Subsection (d) is used to evaluate attainment of the standards whereas subsection (b) determines the value of the standards.

In Section 302.212(d), the phrase “at any particular time” should be replaced with “measured at the time of each ammonia sample.” This change is necessary to clarify that ammonia, pH and temperature measurements must be taken simultaneously in order to determine attainment of the water quality standard.

Upon further review of IAWA’s proposal, Illinois EPA felt that the second sentence of Section 302.212(e) was confusing. This sentence should be rewritten to read: “During any period of the winter season that early life stages are present, and where the Winter water quality standard does not provide adequate protection for these organisms, the water body shall meet the Summer water quality standard.” The Illinois EPA believes this clarifies the intent of this provision without changing the meaning of IAWA’s proposal.

In a Board Note at the conclusion of Section 302.212 and in Section 302.Appendix C, IAWA indicates that its proposal contains a chart (as is contained in the Board’s existing regulations) for the total ammonia water quality standards for various temperatures and pH combinations. No such chart or table has been included in IAWA’s rulemaking proposal.

Part 355

As an attachment to its regulatory proposal, IAWA has included draft amendments to Part 355 of the Agency’s regulations for informational purposes. With regards to this draft, IAWA states that “Based on discussions with the Illinois EPA, it is IAWA’s understanding that Illinois EPA will proceed with rulemaking for these draft rules.” Statement of Reasons at 2. It is the Illinois EPA’s position that Part 355 is not a subject of this proceeding and until the Board adopts a change to the current ammonia

rules, the Illinois EPA can only speculate on what changes may or may not be necessary to its current rules to implement such a change. Clearly, if the Board eliminates the Effluent Modified Waters concept from its current rules, the Illinois EPA rules on that subject will become obsolete. It is the Illinois EPA's intention to modify its implementation rules for ammonia nitrogen contained in Part 355 to conform with whatever rules the Board adopts in this proceeding. Until the Board completes this process, the Illinois EPA is unwilling to commit to adoption of any specific set of rules.

Although we have pointed out several areas for clarification or minor changes to IAWA's proposal and supporting documentation, the Illinois EPA is in agreement with this rulemaking proposal and finds it to be consistent with the federal ammonia criteria. This concludes my pre-filed testimony. I will be happy to address any questions during the hearing regarding these comments and other issues involving the Illinois EPA's role in administering ammonia standards.

By:  _____

Robert Mosher

March 1, 2002

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STATE OF ILLINOIS

COUNTY OF SANGAMON

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PROOF OF SERVICE

I, the undersigned, on oath state that I have served the attached **PREFILED TESTIMONY OF ROBERT MOSHER** upon the person to whom it is directed, by placing a copy in an envelope addressed to:

Please see attached service list.

and mailing it from Springfield, Illinois on **March 1, 2002** with sufficient postage affixed as indicated above.

Nancy J D Lampert

SUBSCRIBED AND SWORN TO BEFORE ME
this 1st day of March 2002

Cynthia L. Wolfe
Notary Public



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R02-19

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