

ILLINOIS POLLUTION CONTROL BOARD
January 19, 2006

IN THE MATTER OF:)
)
PROPOSED 35 ILL. ADM. CODE) R04-26
304.123(g), 304.123(h), 304.123(i), 304.123(j),) (Rulemaking - Water)
and 304.123(k))

Adopted Rule. Final Notice.

OPINION AND ORDER OF THE BOARD (by T.E. Johnson):

Today the Board adopts proposed phosphorus effluent standard regulations. These regulations set forth a phosphorus effluent limit of 1.0 milligram per liter (mg/L) as a monthly average that would apply to new or expanded discharges from treatment works with a design average flow (DAF) over 1.0 million gallons per day receiving municipal or domestic wastewater, or a total phosphorus effluent load of 25 lbs/day or more for treatment works other than those treating municipal or domestic wastewater.

The rules adopted here are substantively unchanged from those adopted in the Board's first-notice and second-notice opinion and orders. On September 15, 2005, the Board adopted the rule for second notice. The Board directed that the rule be submitted to the Joint Committee on Administrative Rules (JCAR) for second-notice review. JCAR considered the rule on November 15, 2005, and again on December 13, 2005. JCAR issued a certification and statement of objection to the rule on December 13, 2005. The following opinion will explain the proposal background, summarize the procedural history, discuss the economic reasonableness and technical feasibility of the rule, and respond to JCAR's objection.

BACKGROUND

On May 14, 2004, the Board received a rulemaking proposal from the Illinois Environmental Protection Agency (Agency). The Agency seeks to set an interim phosphorus effluent standard by adding five new subsections (g-k) to existing 35 Ill. Adm. Code 304.123. A motion for acceptance accompanied the proposal.

In its statement of reasons, the Agency asserts that it is in the process of developing the State numeric nutrient standards pursuant to its triennial water quality standards review. Pet. at 7. The Agency expects to file a nutrient standards petition with the Board in early 2007. Pet. at 8. In the interim, the Agency is proposing this effluent standard for phosphorus to limit higher concentrations of phosphorus that may result in detrimental levels of plant and algae growth. *Id.* The Agency requests that the interim effluent standard apply until the Board adopts a numeric water quality standard for phosphorus.

Two hearings were held before Board Hearing Officer John Knittle. The first hearing was held on August 30, 2004 (Tr.1), in Chicago. The second hearing was held on October 25,

2004, in Springfield (Tr.2). During those hearings the Board heard testimony from a number of witnesses. The Board received 17 public comments prior to proceeding to first notice.

On April 7, 2005, the Board found that the proposal was technically feasible and economically reasonable. The Board proceeded to first notice, and noted that additional comments on the proposal would be accepted.

The proposed amendments were published in the *Illinois Register* on May 6, 2005. *See* Ill. Reg. Vol. 29 Issue 19, p. 6200. The Illinois Association of Wastewater Agencies (IAWA) filed a public comment on June 20, 2005. On July 1, 2005, the Environmental Law & Policy Center, Prairie Rivers Network and Sierra Club (collectively ELPC) filed a response to the comments of IAWA. The Agency filed a comment on July 26, 2005.

In its second-notice opinion and order issued on September 15, 2005, the Board found that adoption of the Agency's proposed rule was warranted, and proposed the rulemaking for second-notice review by the JCAR.

JCAR REVIEW

JCAR considered the second-notice proposal at its November 15, 2005 meeting and voted to extend the second-notice period for an additional 45 days. JCAR considered the second-notice proposal again at its December 13, 2005 meeting and issued a formal certification and statement of objection to the proposed rulemaking. The complete text of the objection follows:

At its meeting on December 13, 2005, the Joint Committee on Administrative Rules objected to the Pollution Control Board's rulemaking titled Effluent Standards (35 Ill. Adm. Code 304; 25 Ill. Reg. 6200) because the rulemaking imposes an undue economic and regulatory burden on the affected wastewater treatment facilities by requiring those facilities to meet interim standards for phosphorus discharges. The EPA has committed to the USEPA to have numeric standards in place for nutrients, but not until in 2008. This additional time should allow affected entities more time to prepare for any costs associated with these standards.

Failure of the agency to respond within 90 days after receipt of the State of Objection shall constitute withdrawal of this proposed rulemaking. The agency's response will be placed on the JCAR agenda for further consideration. *See* Statement of Objection to Proposed Rulemaking, December 13, 2005.

The second-notice period commenced on October 7, 2005, and ended on December 17, 2005, when the Board received notification from JCAR that an objection was issued. *See* 5 ILCS 100/5-40(c) (2004); 35 Ill. Adm. Code 102.606. Other than the non-substantive comments suggested by JCAR, the Board received no comments during the second-notice period.

DISCUSSION

At second notice, the Board found that adoption of the proposal is warranted, and that the proposal was economically reasonable and technically feasible. JCAR stated that they objected to the proposal because the rulemaking imposes an undue economic and regulatory burden on the affected wastewater treatment facilities by requiring those facilities to meet interim standards for phosphorus discharges.

JCAR is a legislative oversight committee that may examine any proposed rule to determine whether the proposed rule is within the statutory authority upon which it is based; whether the rule is in proper form; and whether the notice that was given before its adoption was sufficient to give adequate notice of the purpose and effect of the rule. In addition, JCAR may consider whether the agency has considered alternatives to the rule that are consistent with the stated objects of both the applicable statutes and regulations and whether the rule is designed to minimize economic impact on small businesses. 5 ILCS 100/5-110(a) (2004).

If JCAR certifies its objections to the issuing agency within the second-notice period, that agency must either modify the proposed rule to meet JCAR's objections, withdraw the proposed rule in its entirety, or refuse to modify or withdraw the proposed rule. 5 ILCS 100/5-110(c) (2004).

If an agency refuses to modify or withdraw a proposed rule to remedy an objection by JCAR, that agency must notify JCAR in writing of its refusal and submit a notice of refusal to the Secretary of State. The notice must be published in the next available issue of the *Illinois Register*. If JCAR decides to recommend legislative action in response to an agency refusal, the JCAR "shall have drafted and introduced into either house of the General Assembly appropriate legislation to implement the recommendations of the Joint Committee." 5 ILCS 100/5-110(g) (2004).

The Board respectfully disagrees with JCAR's conclusions. The Board continues to believe that, based on the cost information in the record coupled with the fact that the proposed rule applies to only new or expanding larger facilities, affected facilities can incorporate the additional cost of phosphorus control in their overall expansion plans with an economically reasonable impact. Once again, it should be stressed that the proposed limit would apply to only new or expanded discharges from wastewater treatment plants with either a design average flow over 1.0 million gallons per day receiving municipal or domestic waste water, or a total phosphorus effluent load of 25 pounds per day or more for treatment works other than those treating municipal or domestic wastewater. Further, the 1.0 mg/L limit would not apply to a source that can demonstrate that phosphorus is not the limiting nutrient in the receiving water or that alternative phosphorus effluent limits are warranted by the aquatic environment in the receiving water. Thus, the Board finds that the implementation of the proposed phosphorus effluent standard will not impose an undue economic or regulatory burden.

Further, as the Board explained at second notice, while the findings of the nutrient control work group referenced by JCAR will help the Agency in developing scientifically justifiable

water quality standards for nutrients, effluent standards are somewhat different. An effluent standard is mainly intended to limit significant loading of a pollutant to a receiving stream giving consideration to availability of appropriate treatment technology and associated costs. While there is currently a water quality standard for phosphorous that applies to some waters of the State, the impact of the new effluent standard for phosphorus is designed to limit the phosphorus loading on the State waters.

As stated in the second-notice order, the Board believes it is prudent to control phosphorus discharge from larger treatment plants given the impact of such discharges on receiving streams. While non-point source contribution (agricultural drainage and runoff) is also a significant source of phosphorus loadings, the Board believes that control of phosphorus from non-point sources is not appropriate in this rulemaking.

The Board finds nothing in JCAR's objection or in a review of the record to alter its decision that the implementation of the proposed phosphorus effluent standard is economically reasonable and technically feasible. As noted, the Board did receive six non-substantive comments from JCAR. The Board has incorporated the suggested changes into the adopted proposal.

SUMMARY OF THE ADOPTED PROPOSAL

The adopted proposal sets forth a phosphorus effluent limit of 1.0 milligram per liter (mg/L) as a monthly average that would apply to new or expanded discharges from treatment works with a design average flow (DAF) over 1.0 million gallons per day receiving municipal or domestic wastewater, or a total phosphorus effluent load of 25 lbs/day or more for treatment works other than those treating municipal or domestic wastewater. However, if the source can demonstrate that phosphorus is not limiting nutrient in the receiving water or that alternative phosphorus effluent limits are warranted by the aquatic environment in the receiving water, the 1.0 mg/L limit would not apply.

Today's proposal differs in only one substantive manner than the proposal as set forth in its entirety in the Board's first-notice opinion and order – the addition of proposed language to ensure that the averaging rule exemption is available to permits issued under Section 304.104(g) as well as 304.104(b). This change was supported by IAWA, the EPLC and the Agency in post first-notice filings.

In response to testimony and questions at hearing, the Agency offered several changes to the original proposal in its post-hearing comments prior to first notice. In the first-notice opinion and order, the Board found that the changes to the proposal did not change the scope of the originally proposed language. The proposal that was published in the *Illinois Register* accepted the Agency's changes along with some clarifying changes drafted by Board.

Changes of note that were made in the Board's first-notice opinion and order include: (1) the addition of language in subsections (g)(1) and (g)(2) to clarify that treatment works receiving primarily municipal or domestic wastewater are not covered by subsections (b) through (f) of the proposal; (2) language in subsection (h) that provides that dischargers otherwise subject to the

requirement in (g) may choose to demonstrate that the treatment works in question is not causing the phosphorus issues in the receiving waters, and therefore should not be subject to a monthly average permit limit for total phosphorus of 1.0 mg/L; (3) a sentence allowing the Agency to consider site-specific information in deciding whether alternative phosphorus effluent limits are appropriate; (4) a change in the renumbered subsection (i) that provides that dischargers that comply with the requirements of (g) or (h) are not subject to additional phosphorus limitations that may be otherwise required by 35 Ill. Adm. Code 304.105 and 302.203; and (5) a new clause in the renumbered subsection (j) that the new water quality standards are not effective until approved by the United States Environmental Protection Agency (USEPA). Interim Phosphorus Effluent Standard, Proposed 35 Ill. Adm. Code 304.123(g-k), R04-26 slip op. at 20 (Apr. 7, 2005).

In addition, the Board defined what constitutes as a “new” or “expanded” discharge from treatment works at subsection (g)(3). A “new” discharge is defined as a discharge from treatment works constructed after the effective date of the proposed regulations, and an “expanded” discharge is defined as a discharge from an existing treatment works that would be greater than the flow rates permitted prior to the effective date of the proposed amendments. The Board deleted subsection (i) of the Agency’s proposal. Interim Phosphorus Effluent Standard, Proposed 35 Ill. Adm. Code 304.123(g-k), R04-26 slip op. at 20. (Apr. 7, 2005).

The Board has made additional non-substantive changes to the rule as suggested by JCAR, but will not summarize or delineate the entirety of the rule or the changes made by the Board. The Board’s order reflects the Board’s changes.

CONCLUSION

Based on the record before it, the Board finds that adoption of the Agency’s proposal is warranted.

ORDER

The Board directs the Clerk to file the following adopted rule with the Secretary of State for publication in the *Illinois Register* for final notice and adoption in the *Illinois Administrative Code*.

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

PART 304
EFFLUENT STANDARDS

SUBPART A: GENERAL EFFLUENT STANDARDS

Section
304.101 Preamble

304.102	Dilution
304.103	Background Concentrations
304.104	Averaging
304.105	Violation of Water Quality Standards
304.106	Offensive Discharges
304.120	Deoxygenating Wastes
304.121	Bacteria
304.122	Total Ammonia Nitrogen (as N: STORET number 00610)
304.123	Phosphorus (STORET number 00665)
304.124	Additional Contaminants
304.125	pH
304.126	Mercury
304.140	Delays in Upgrading (Repealed)
304.141	NPDES Effluent Standards
304.142	New Source Performance Standards (Repealed)

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

Section	
304.201	Wastewater Treatment Plant Discharges of the Metropolitan Water Reclamation District of Greater Chicago
304.202	Chlor-alkali Mercury Discharges in St. Clair County
304.203	Copper Discharges by Olin Corporation
304.204	Schoenberger Creek: Groundwater Discharges
304.205	John Deere Foundry Discharges
304.206	Alton Water Company Treatment Plant Discharges
304.207	Galesburg Sanitary District Deoxygenating Wastes Discharges
304.208	City of Lockport Treatment Plant Discharges
304.209	Wood River Station Total Suspended Solids Discharges
304.210	Alton Wastewater Treatment Plant Discharges
304.211	Discharges From Borden Chemicals and Plastics Operating Limited Partnership Into an Unnamed Tributary of Long Point Slough
304.212	Sanitary District of Decatur Discharges
304.213	PDV Midwest Refining, L.L.C. Refinery Ammonia Discharge
304.214	Mobil Oil Refinery Ammonia Discharge
304.215	City of Tuscola Wastewater Treatment Facility Discharges
304.216	Newton Station Suspended Solids Discharges
304.218	City of Pana Phosphorus Discharge
304.219	North Shore Sanitary District Phosphorus Discharges
304.220	East St. Louis Treatment Facility, Illinois-American Water Company
304.221	Ringwood Drive Manufacturing Facility in McHenry County
304.222	Intermittent Discharge of TRC

SUBPART C: TEMPORARY EFFLUENT STANDARDS

Section

- 304.301 Exception for Ammonia Nitrogen Water Quality Violations (Repealed)
 304.302 City of Joliet East Side Wastewater Treatment Plant
 304.303 Amerock Corporation, Rockford Facility

Appendix A References to Previous Rules

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

SOURCE: Filed with the Secretary of State January 1, 1978; amended at 2 Ill. Reg. 30, p. 343, effective July 27, 1978; amended at 2 Ill. Reg. 44, p. 151, effective November 2, 1978; amended at 3 Ill. Reg. 20, p. 95, effective May 17, 1979; amended at 3 Ill. Reg. 25, p. 190, effective June 21, 1979; amended at 4 Ill. Reg. 20, p. 53, effective May 7, 1980; amended at 6 Ill. Reg. 563, effective December 24, 1981; codified at 6 Ill. Reg. 7818; amended at 6 Ill. Reg. 11161, effective September 7, 1982; amended at 6 Ill. Reg. 13750, effective October 26, 1982; amended at 7 Ill. Reg. 3020, effective March 4, 1983; amended at 7 Ill. Reg. 8111, effective June 23, 1983; amended at 7 Ill. Reg. 14515, effective October 14, 1983; amended at 7 Ill. Reg. 14910, effective November 14, 1983; amended at 8 Ill. Reg. 1600, effective January 18, 1984; amended at 8 Ill. Reg. 3687, effective March 14, 1984; amended at 8 Ill. Reg. 8237, effective June 8, 1984; amended at 9 Ill. Reg. 1379, effective January 21, 1985; amended at 9 Ill. Reg. 4510, effective March 22, 1985; peremptory amendment at 10 Ill. Reg. 456, effective December 23, 1985; amended at 11 Ill. Reg. 3117, effective January 28, 1987; amended in R84-13 at 11 Ill. Reg. 7291, effective April 3, 1987; amended in R86-17(A) at 11 Ill. Reg. 14748, effective August 24, 1987; amended in R84-16 at 12 Ill. Reg. 2445, effective January 15, 1988; amended in R83-23 at 12 Ill. Reg. 8658, effective May 10, 1988; amended in R87-27 at 12 Ill. Reg. 9905, effective May 27, 1988; amended in R82-7 at 12 Ill. Reg. 10712, effective June 9, 1988; amended in R85-29 at 12 Ill. Reg. 12064, effective July 12, 1988; amended in R87-22 at 12 Ill. Reg. 13966, effective August 23, 1988; amended in R86-3 at 12 Ill. Reg. 20126, effective November 16, 1988; amended in R84-20 at 13 Ill. Reg. 851, effective January 9, 1989; amended in R85-11 at 13 Ill. Reg. 2060, effective February 6, 1989; amended in R88-1 at 13 Ill. Reg. 5976, effective April 18, 1989; amended in R86-17(B) at 13 Ill. Reg. 7754, effective May 4, 1989; amended in R88-22 at 13 Ill. Reg. 8880, effective May 26, 1989; amended in R87-6 at 14 Ill. Reg. 6777, effective April 24, 1990; amended in R87-36 at 14 Ill. Reg. 9437, effective May 31, 1990; amended in R88-21(B) at 14 Ill. Reg. 12538, effective July 18, 1990; amended in R84-44 at 14 Ill. Reg. 20719, effective December 11, 1990; amended in R86-14 at 15 Ill. Reg. 241, effective December 18, 1990; amended in R93-8 at 18 Ill. Reg. 267, effective December 23, 1993; amended in R87-33 at 18 Ill. Reg. 11574, effective July 7, 1994; amended in R95-14 at 20 Ill. Reg. 3528, effective February 8, 1996; amended in R94-1(B) at 21 Ill. Reg. 364, effective December 23, 1996; expedited correction in R94-1(B) at 21 Ill. Reg. 6269, effective December 23, 1996; amended in R97-25 at 22 Ill. Reg. 1351, effective December 24, 1997; amended in R97-28 at 23 Ill. Reg. 3512, effective February 3, 1998; amended in R98-14 at 23 Ill. Reg. 687, effective December 31, 1998; amended in R02-19 at 26 Ill. Reg. 16948, effective November 8, 2002; amended in R02-11 at 27 Ill. Reg. 194, effective December 20, 2002; amended in R04-26 at 30 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL EFFLUENT STANDARDS

Section 304.123 Phosphorus (STORET number 00665)

- a) No effluent discharge within the Lake Michigan Basin shall contain more than 1.0 mg/l of phosphorus as P.
- b) No effluent from any source which discharges to a lake or reservoir with a surface area of 8.1 hectares (20 acres) or more, or to any tributary of such a lake or reservoir whose untreated waste load is 2500 or more population equivalents, and which does not utilize a third-stage lagoon treatment system as specified in subsections 304.120(a) and (c), shall exceed 1.0 mg/l of phosphorus as P; however, this subsection shall not apply where the lake or reservoir, including any side channel reservoir or other portion thereof, on an annual basis exhibits a mean hydraulic retention time of 0.05 years (18 days) or less.
- c) Pursuant to Section 28.1 of the Environmental Protection Act (Act) [415 ILCS 5/28.1], the owner or operator of any source subject to subsection (b) of this Section may apply for an adjusted standard. In addition to the proofs specified in Section 28.1(c) of the Act 415 ILCS 5/28.1(c), such application shall, at a minimum, contain adequate proof that the effluent resulting from grant of the adjusted standard will not contribute to cultural eutrophication, unnatural plant or algal growth or dissolved oxygen deficiencies in the receiving lake or reservoir. For purposes of this subsection (c), such effluent shall be deemed to contribute to such conditions if phosphorus is the limiting nutrient for biological growth in the lake or reservoir, taking into account the lake or reservoir limnology, morphological, physical and chemical characteristics, and sediment transport. However, if the effluent discharge enters a tributary at least 40.25 kilometers (25 miles) upstream of the point at which the tributary enters the lake or reservoir at normal pool level, such effluent shall not be deemed to contribute to such conditions if the receiving lake or reservoir is eutrophic and phosphorus from internal regeneration is not a limiting nutrient.
- d) For the purposes of this Section the term "lake or reservoir" shall not include low level pools constructed in free flowing streams or any body of water which is an integral part of an operation which includes the application of sludge on land.
- e) Compliance with the limitations of subsection (b) of this Section shall be achieved by the following dates:
 - 1) Sources with the present capability to comply shall do so on the effective date of this Section;
 - 2) All other sources shall comply as required by NPDES permit.

f) For purposes of this Section, the following terms shall have the meanings specified:

- 1) "Dissolved oxygen deficiencies" means the occurrence of a violation of the dissolved oxygen standard applicable to a lake or reservoir.

(BOARD NOTE: Dissolved Oxygen standards for general use waters are set forth at 35 Ill. Adm. Code 302.206; Dissolved Oxygen standards for secondary contact or indigenous aquatic life waters are set forth at 35 Ill. Adm. Code 302.405.)

- 2) "Euphotic zone" means that region of a lake or reservoir extending from the water surface to a depth at which 99% of the surface light has disappeared or such lesser depth below which photosynthesis does not occur.
- 3) "Eutrophic" means a condition of a lake or reservoir in which there is an abundant supply of nutrients, including phosphorus, accounting for a high concentration of biomass.
- 4) "Eutrophication" means the process of increasing or accumulating plant nutrients in the water of a lake or reservoir. Cultural eutrophication is eutrophication attributable to human activities.
- 5) "Internal regeneration" means the process of conversion of phosphorus or other nutrients in sediments of a lake or reservoir from the particulate to the dissolved form and the subsequent return of such dissolved forms to the euphotic zone.
- 6) "Limiting nutrient" means a substance which is limiting to biological growth in a lake or reservoir due to its short supply or unavailability with respect to other substances necessary for the growth of organisms.
- 7) "Unnatural plant or algal growth" means the occurrence of a violation of the unnatural sludge standard applicable to a lake or reservoir with respect to such growth.

(BOARD NOTE: Unnatural sludge standards for general use waters are set forth at 35 Ill. Adm. Code 302.203; unnatural sludge standards for secondary and indigenous aquatic life waters are set forth at 35 Ill. Adm. Code 302.403.)

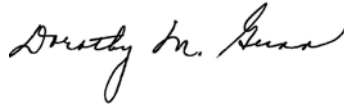
g) Except as provided in subsection (h) of this Section, any new or expanded discharges into General Use waters from the following treatment works not covered by subsections (b) through (f) of this Section, are subject to monthly average permit limits for total phosphorus of 1 mg/ l:

- 1) Treatment works with a Design Average Flow of 1.0 million gallons per day or more receiving primarily municipal or domestic wastewater; or
- 2) Any treatment works, other than those treating primarily municipal or domestic wastewater, with a total phosphorus effluent load of 25 pounds per day or more.
- 3) For purposes of this subsection:
 - A) A new discharge means a discharge from a treatment works constructed after December 15, 2005.
 - B) An expanded discharge means a discharge from any existing treatment works that would be greater than the flowrates permitted prior to December 15, 2005.
- h) Discharges qualifying under subsections (g)(1) and (g)(2) of this Section may not be subject to the requirements of subsection (g) of this Section provided the discharger demonstrate that phosphorus from treatment works is not the limiting nutrient in the receiving water. The Agency may impose alternative phosphorus effluent limits where the supporting information shows that alternative limits are warranted by the aquatic environment in the receiving stream.
- i) No additional phosphorus limitations are required pursuant to Sections 304.105 and 35 Ill. Adm. Code 302.203 for the discharges that comply with the requirements of subsection (g) or (h) of this Section.
- j) The provisions of subsections (g), (h), and (i) of this Section apply until such time as the Board adopts a numeric water quality standard for phosphorus and the adopted standard is approved by the U.S. EPA.
- k) The averaging rules under subsections (a)(2) and (a)(3) of Section 304.104 do not apply to permit limits established pursuant to subsection (g) or (h) of this Section.

(Source: Amended at 30 Ill. Reg. _____, effective _____)

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on January 19, 2006, by a vote of 4-0.

A handwritten signature in cursive script that reads "Dorothy M. Gunn".

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board