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STATE OF ILLINOIS  
Pollution Control Board

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

INTERIM PHOSPHORUS EFFLUENT )  
STANDARD, PROPOSED 35 ILL. ADM. ) R2004-026  
CODE 304.123(G-K) ) Rulemaking – Water  
)

NOTICE OF FILING

PLEASE TAKE NOTICE that the Environmental Law & Policy Center, Prairie Rivers Network and Sierra Club have filed the attached MEMORANDUM AND TESTIMONY OF ENVIRONMENTAL LAW & POLICY CENTER, PRAIRIE RIVERS NETWORK AND SIERRA CLUB IN SUPPORT OF THE ILLINOIS EPA RULE MAKING PROPOSAL.



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DATED: October 15, 2004

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**MEMORANDUM AND TESTIMONY OF ENVIRONMENTAL LAW & POLICY CENTER, PRAIRIE RIVERS NETWORK AND SIERRA CLUB IN SUPPORT OF THE ILLINOIS EPA RULE MAKING PROPOSAL**

INTRODUCTION:

Environmental Law & Policy Center of the Midwest (ELPC), Prairie Rivers Network and the Sierra Club strongly support the Illinois EPA proposal to establish an interim rule that will generally require monthly average permit limits of 1 mg/L total phosphorus for new or expanded discharges by major dischargers. The proposal is extremely modest and does not provide a long-term solution to the problem of nutrient pollution in Illinois waters and waters downstream of Illinois. Still, adoption of the proposal will serve to reduce the extent to which the problem gets worse during the next four years during which numeric nutrient water quality standards are developed and adopted.

Our submission in support of the proposal is in four parts.

Part I, the Pre-filed Testimony of Albert Ettinger, consists essentially of a legal memorandum explaining the legal and regulatory frameworks of the proposal. It will be seen that, while the proposed rule is extremely helpful in giving guidance to permit applicants and permit writers, adoption of the proposed rule would not have a major effect on Illinois law. Dischargers within the Great Lakes Basin have been required to meet the 1 mg/L limit for twenty years. Illinois dischargers less than 25 miles upstream of a lake or reservoir already must meet a

1 mg/L limit under 35 Ill. Adm. Code 304.123. More generally, given that it unquestionably is practicable for major dischargers to treat wastewater to a level of 1 mg/L or less total phosphorus, the Illinois antidegradation rule, 35 Ill. Adm. Code 302.105(c), already requires the permits that would be affected by the proposed rule to contain a limit as stringent as 1 mg/L. Still further, a phosphorus limit should also be required now for many dischargers under 35 Ill. Adm. Code 302.203 and 35 Ill. Adm. Code 302.206 and 35 Ill. Adm. Code 309.141.

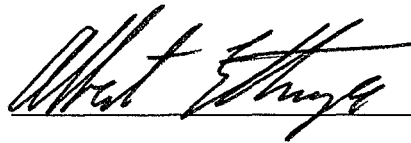
Part II of this petition is a description of the need for greater controls on phosphorus to protect Illinois waters. Professor Michael Lemke of the University of Illinois at Springfield explains the known effects of phosphorus pollution and the dangers of allowing unrestricted new loadings of phosphorus to be discharged to Illinois rivers, lakes and streams.

In Part III of this submission, Beth Wentzel, Watershed Scientist of Prairie Rivers Network, discusses existing efforts to control phosphorus pollution in Illinois and other states. It will be seen that the proposed monthly average limited of 1 mg/L can be reached affordably by Illinois dischargers and that in fact hosts of dischargers around the country are complying with much tighter limits. Moreover, many Illinois dischargers are already complying with phosphorus limits. In addition to discharges controlled by 35 Ill. Adm. Code 123 (a) and (b), many Illinois dischargers intending to have new or increased discharges have already agreed to average limits of 1 mg/L total phosphorus. This includes a number of dischargers that were identified at the hearing August 30 (Tr. 6) as being potentially affected by this proposal including McHenry, Plano, Manhattan, Minooka, Bloomingdale, and Lake in the Hills.

In Part IV of this submission to the Board, we propose and explain proposed language changes to the proposal. It will be recalled that legal and technical problems in the language used in the proposal were discussed in the hearing held August 30, 2004. We believe that our

proposed changes to the agency proposal address all of the substantive and drafting issues that were brought out in the hearing and make the proposal stronger and eliminate arguable inconsistencies between the currently proposed language and the requirements of the Clean Water Act and current Board rules.

Finally, it should be pointed out that there is a need for an expedited decision in this proceeding. Decisions regarding treatment plant design and permits have to be made on an ongoing basis and one of the major benefits of adoption of the proposal will be to force some dischargers to avoid making investments in equipment that will have to be retrofitted in a few years.



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**Pre-filed Testimony of Albert Ettinger**

I am Senior Staff Attorney at the Environmental Law & Policy Center of the Midwest (ELPC) and Water Issues Coordinator and General Counsel for the Illinois Chapter of the Sierra Club. In this proceeding I represent ELPC, the Sierra Club and Prairie Rivers Network. I have worked in Illinois on matters relating to water pollution and implementation of the federal Clean Water Act as counsel to the Sierra Club since 1982. I am also the principal author of the February 2, 2004 letter (Hearing Exhibit 3) that may have figured in development of the interim phosphorus proposal now before the Board although the proposal does not closely follow the recommendations made in the letter.

This testimony sets forth the legal principles that support the petition filed by the Illinois Environmental Protection Agency (IEPA). The testimony also provides the legal rationale for the suggestions of ELPC, Prairie Rivers Network and Sierra Club for improving some of the language of the IEPA proposal.

**Introduction**

The Agency's proposal for an interim monthly average phosphorus effluent limit of 1 mg/L for many new or increased discharges is fully merited, if not legally required, by existing law and regulations. The proposal fits well with other Illinois regulations that have been enacted by the Board to deal with similar situations. The proposed rule addresses several basic goals and requirements of the Clean Water Act and the Illinois Environmental Protection Act. In particular, the proposed effluent limitation generally will bring NPDES permits granted by IEPA closer to compliance with federal and state requirements that:

- permit limits control "all pollutants ... which will cause, have a potential to cause, or contribute to an excursion above any State water quality standard,

including State narrative criteria for water quality” 40 CFR §§ 122.44(d)(1)(i), see also, 35 Ill. Adm. Code 304.105,

- only allow new or increased loadings to Illinois waters if allowing such loadings is “necessary to accommodate important economic or social development.” 35 Ill. Adm. Code 302.105(c)(1).

Permits for new or increased discharges not containing a 1 mg/L monthly average limit for phosphorus generally violate both of these bedrock principles of NPDES permit writing. To see how this all fits together, it is helpful to review some of the history of the CWA and its implementation in Illinois.

**I. The Clean Water Act and Illinois law require that NPDES permits control pollutants that may cause or contribute to violations of water quality standards and prohibit allowing new pollution that has not been shown to be necessary.**

**A. The Clean Water Act**

Congress enacted the CWA, 33 U.S.C. §§ 1251-1386, in 1972 to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). The CWA prohibits any “point source” from discharging pollutants into waters of the United States unless the source obtains an NPDES permit. 33 U.S.C. §§ 1311(a), 1342. NPDES is the initials for the “National Pollutant Discharge Elimination System.” See 33 U.S.C. §1342 . The Act sets as a national goal that all discharges be eliminated by 1985. 33 U.S.C. §1251(a)(1). It was thought that, while the technology was developed and put in place to eliminate discharges, municipalities, companies and other persons needing to discharge were to obtain NPDES permits. Over time, NPDES limits were to be tightened until discharges were eliminated.<sup>1</sup>

CWA requires dischargers to comply with both “technology-based” and “water quality-based” limitations on pollutant discharges. Permit limitations on the quantity and types of

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<sup>1</sup> Adler, R.W., Landman, J.C. and Cameron, D.M., *The Clean Water Act 20 Years Later*, Island Press (1993) p. 137-39; Rodgers, Jr., W.H., *Environmental Law*, Second Edition (1994) pp. 361-62.

pollution permitted are to be set according to either technology-based effluent limits or water quality standard based limits, whichever is more stringent. 33 U.S.C. § 1311(b)(1)(C); *see also* Rodgers, Jr., W.H., Environmental Law, Second Edition (1994) p. 352.

Technology-based effluent rules (also known as “effluent limitation guidelines”) are based on the greatest degree of effluent reduction economically achievable for a particular industry. EPA has promulgated nationwide technology-based effluent guidelines for many industries, *see* 40 C.F.R. Parts 405 to 499. When there is no applicable effluent limitation guideline, the permitting authority must exercise “best professional judgment” to set technology standards for each permit on a case-by-case basis. 33 U.S.C. § 1342(a)(1)(B); 40 C.F.R. § 125.3(c). Publicly owned treatment works are to meet effluent limits attainable through the application of “secondary treatment” 33 U.S.C. §§1311(b) which was to be specified by U.S. EPA “within sixty days of October 19, 1972, (and from time to time thereafter).” (33 U.S.C. § 1314(d)(a)). Federal regulations, long overdue for reconsideration, define “secondary treatment.” 40 CFR §133.102

Water quality-based standards set the water quality goals for specific water bodies, 40 C.F.R. § 131.2. Water quality standards shall provide whenever possible “the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water.” 33 U.S.C. § 1251(a)(2); 40 C.F.R. §§ 130.3, 131.2. At a minimum, water quality standards must include: (1) the designated use or uses of a water body (e.g., safe to drink, safe to swim, safe for aquatic life, safe for fish consumption); (2) the water quality criteria necessary to protect the designated use or uses (expressed as a narrative or numeric standard); and (3) an “antidegradation policy” consistent with 40 C.F.R. § 131.12. *See* 40 C.F.R. § 131.6. Further, “in designating uses of a water body and the appropriate criteria for those uses, the State shall take

into consideration the water quality standards of downstream waters and shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters.” 40 CFR §131.10(b).

No NPDES permit may be granted that allows discharges that may cause or contribute to violations of water quality standards. 40 CFR §122.44(d), which implements CWA Section 301(b)(1)(C), explicitly requires that NPDES permits include restrictions “necessary to achieve water quality standards ... including State narrative criteria.” American Paper Institute v. U.S. Environmental Protection Agency, 996 F.2d 346, 350 (D.C. Cir. 1993). Permit “[l]imitations must control all pollutants or pollutant parameters (either conventional, nonconventional or toxic pollutants) which ... are or may be discharged at a level which will cause, have a reasonable potential to cause, or contribute to an excursion above any State water quality standard, including state narrative criteria for water quality.” 40 CFR §122.44(d)(1)(i); see also, 40 CFR 122.4(d) and (i). Not only must permit limits protect standards in the waters immediately below the discharge point, standards must be protected in waters far downstream of the discharge, even in another state. Arkansas v. Oklahoma, 503 U.S. 91, 107 (1992).

Naturally, given that the CWA seeks to restore water quality and eliminate discharges the circumstances in which new pollution is to be allowed are strictly limited. Thus, a key element of water quality standards is antidegradation policy. An antidegradation policy is “a policy requiring that state standards be sufficient to maintain existing beneficial uses of navigable waters, preventing their further degradation.” *PUD No. 1 of Jefferson County v. Washington Dep’t of Ecology*, 511 U.S. 700, 705 (1994). Each state must adopt an antidegradation policy consistent with 40 C.F.R. § 131.12, which creates overlapping “tiers” of protection. 40 C.F.R. §131.12. At the base, Tier 1 requires the maintenance and protection of “[e]xisting instream



water uses.” 40 C.F.R. § 131.12(a)(1). Tier 2 adds another layer of protection for water quality by providing that levels of water quality better than that needed to meet standards and protect existing uses, “*shall* be maintained and protected” unless “allowing lower water quality is *necessary* to accommodate *important* economic or social development in the area in which the waters are located.” 40 CFR 131.12(a)(2)(emphasis added).<sup>2</sup>

**B. Illinois Law follows the Clean Water Act.**

Illinois has adopted the Clean Water Act requirements into its own laws and regulations. One of the provisions of the Illinois Environmental Protection Act is a statement that it is the policy of the General Assembly that the Pollution Control Board and IEPA administer the Clean Water Act in a manner consistent with Illinois administering the NPDES permitting system. 415 ILCS 5/11(a)(7), (b). see also, Peabody Coal Co. v. Pollution Control Bd., 36 Ill. App. 5, 344 N.E.2d 279, 285 (5<sup>th</sup> Dist. 1976)(Illinois statutes and regulations should be read to accord with the Clean Water Act. ); 415 ILCS 5/13(b) (Board rules shall be consistent with the Clean Water Act).<sup>3</sup>

Following the Environmental Protection Act, the Board has established water quality standards and effluent rules that seek, as a minimum, to comply with the requirements of the Clean Water Act. In Part 302 of its regulations, the Board has established numeric and narrative water quality standards that, with some exceptions, track federal criteria or that deviate from federal criteria only in ways that are supported by a sound scientific rationale. It has adopted antidegradation standards that meet federal requirements. 35 Ill. Adm. Code 302.105.

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<sup>2</sup> Tier 3 adds a third and highest layer of protection for Outstanding National Resource Waters (“ONRWs”), for waters designated by a state as waters of “exceptional recreational or ecological significance.” 40 C.F.R. § 131.12(a)(3).

The Board has also adopted rules for the issuance of NPDES permits that are designed with the goal, among other goals, of complying with the Clean Water Act. Most obviously, 35 Ill. Adm. Code 309.141 requires that Agency issued permits comply with the technology based effluent limits required by the Clean Water Act and any other limits required by federal law. Further, 35 Ill. Adm. Code 304.105 requires that any effluent or combination of effluents be regulated to insure that there is compliance with all applicable water quality standards in all receiving or downstream waters that may be affected by the discharge. see In the Matter of: Petition of Commonwealth Edison Company for Adjusted Standard from 35 Ill. Adm. Code 302.211(d) and (e), AS 96-10 (PCB, October 3, 1996)

In addition, in Part 304 the Board has created a number of effluent rules. Some of these effluent rules track federally-mandated effluent rules. For example, the current phosphorus rule, insofar as it requires that "No effluent discharge within the Lake Michigan Basin shall contain more than 1.0 mg/L of phosphorus as P," (35 Ill. Adm. 304.123(a)) is a required federal rule established as a result of the Great Lakes Water Quality Agreement of 1978. Under the Great Lakes Water Quality Agreement, all dischargers in the basins of Lake Huron, Lake Michigan and Lake Superior discharging more than more than 1 million gallon per day have had to meet a limit of 1 mg/L for phosphorus. (Exhibit A)

Other of the effluent rules in Part 304, like the current IEPA phosphorus proposal, are hybrid rules designed with both technological treatment capabilities and protection of water quality standards in mind. For example, the current phosphorus rule, insofar as it controls discharges to lake and reservoirs (35 Ill. Adm. Code 304.123(b)), was adopted by the Board, following consideration of the cost of phosphorus treatment and the effects of phosphorus on

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<sup>3</sup> If the Illinois Environmental Protection Act is interpreted or implemented by Illinois in such a manner that it does not fully implement the letter and policies of the Clean Water Act, Illinois could lose the ability to administrate

lakes, to protect lakes from algal growth and other harmful effects that would cause a violation of the water quality standards. See In the Matter of: Proposed Amendment to Phosphorus Effluent Standard, No. 87-6 1990 Ill. Env. Lexis 419 (April 12, 1990)

The Part 304 rules provide rules for permit writers that allow easy formulation of permit limits. In the view of ELPC, Prairie Rivers Network and Sierra Club, these rules have been abused in cases where, following the effluent rules but not other portions of the Board rules, IEPA permit writers put looser limits in permits when more stringent limits were actually required to protect water quality standards.<sup>4</sup> However, it is certainly better that such hybrid effluent limit rules, developed with technological and water quality considerations in mind, be used to set some limits on controllable pollution than that there be no limits at all.

**II. Limits on the Discharge of Phosphorus are needed to prevent violations of Illinois water quality standards and comply with antidegradation requirements.**

**A. Controls are needed to prevent violations of the water quality standards regarding offensive conditions, pH and dissolved oxygen.**

For reasons that are described in greater detail in the testimony of Professor Michael Lemke, controls on phosphorus pollution are needed to prevent conditions in Illinois waters that violate Illinois water standards. Generally, U.S. EPA has described the damage caused by excess nutrients, stating:

Human health problems can be attributed to nutrient enrichment. One serious human health problem associated with nutrient enrichment is the formation of trihalomethanes (THMs). Trihalomethanes are carcinogenic compounds that are

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NPDES permitting in Illinois. See 40 C.F.R. 123.63.

<sup>4</sup> For example, it is now clear from certain TMDL studies that the effluent limits of 35 Ill. Adm. Code 304.120 for deoxygenating wastes are far from adequate to protect Illinois waters from violations of the dissolved oxygen standards. By using 35 Ill. Adm. Code 304.120 as a quick and dirty approach to placing controls in permits needed to prevent violations of DO standards, IEPA in some important cases is permitting pollution that is causing DO violations. Because there are DO modeling tools that would enable IEPA to do a better job, such as the venerable Streeter Phelps model, IEPA is not justified in solely relying on 304.120. Still, the situation is better with IEPA using 304.120 to place some limits on deoxygenating wastes than it would be if, finding it hard to calculate limits for such pollution, IEPA did not put NPDES controls on it at all.

produced when certain organic compounds are chlorinated and bromated as part of the disinfection process in a drinking water facility. Trihalomethanes and associated compounds can be formed from a variety of organic compounds including humic substances, algal metabolites and algal decomposition products. The density of algae and the level of eutrophication in the raw water supply has been correlated with the production of THMs.

\* \* \*

Nutrient impairment can cause problems other than those related to human health. One of the most expensive problems caused by nutrient enrichment is the increased treatment required for drinking water... Adverse ecological effects associated with nutrient enrichment include reductions in dissolved oxygen (DO) and the occurrence of HABs (harmful algal blooms). High algal and macrophyte biomass may be associated with severe diurnal swings in DO and pH in some water bodies. Low DO can release toxic metals from sediments contaminating habitats of local aquatic organisms. In addition, low DO can cause increased availability of toxic substances like ammonia and hydrogen sulfide, reducing acceptable habitat for most aquatic organisms, including valuable game fish. Decreased water clarity (increased turbidity) can cause loss of macrophytes and creation of dense algal mats. Loss of macrophytes and enrichment may alter the native composition and species diversity of aquatic communities.<sup>5</sup>

In addition, nutrients, particularly phosphorus, can cause high pH levels which themselves can be harmful to aquatic life. Walter K. Dodds, Freshwater Ecology, Academic Press (2002) p. 341-42. Phosphorus can also contribute to blue green algae growth that create a variety of toxins. Ind. Dept. of Env. Mgt., Water Column Fall 2001 Vol. 13 No. 4 (Exhibit B)

Illinois waters that have been monitored for impairments that could have been caused by phosphorus pollution show that phosphorus is already having a major effect on Illinois waters even without addition of further loading of phosphorus that the Agency proposal is designed to moderate. The IEPA water quality report for 2004 shows that over 100,000 acres of the under 150,000 acres of Illinois lakes monitored by IEPA were impaired by "Excessive algal growth/Chlorophyll a" (Exhibit C).

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<sup>5</sup> U.S. Environmental Protection Agency, Nutrient Criteria, Technical Guidance Manual, Rivers and Streams, EPA - 822-B-00-002 (July 2000) (pp. 4-5, citations omitted).

IEPA does not really study, or studies only indirectly, adverse river conditions likely to be caused by phosphorus pollution.<sup>6</sup> Nonetheless, IEPA in its 2004 water quality report has listed phosphorus as a potential cause of impairments of numerous river miles, including sections of the Illinois, Wood and Mississippi Rivers, which are, of course, downstream of numerous Illinois dischargers of phosphorus and other sources of phosphorus. (Exhibit C)<sup>7</sup> However, recent studies show that algal blooms are causing violations of DO and pH standards in dammed pools in the Fox River. See Victor Santucci Jr. and Stephen R. Gephard, Fox River Fish Passage Feasibility Study, <http://www.co.kane.il.us/kcstorm/dams/fishpssg/final.pdf>, pp. 42-54. (Exhibit D) Earlier with regard to the Fox River, the Illinois Natural History Survey wrote of the effect of elevated phosphorus levels on the Fox:

High nutrient inputs and still-water environments created by the numerous channel dams situated along the entire main stem of the Fox River in Illinois promote excessive algal growths. Very high phosphorus levels appear to promote and sustain massive algal blooms along the Fox River. ...

Pronounced algal growth will continue to produce fluctuating DO levels behind the low channel dams unless significant reduction in phosphorus levels occurs.<sup>8</sup>

By creating algal blooms and blooms of cyanobacteria (a.k.a. "blue green algae"), nutrients cause a host of problems for Illinois drinking water, recreational uses and aquatic life.

Phosphorus is known to cause violation of at least three Illinois water quality standards:

- 302.203 which states that "Water of the State shall be free from sludge or bottom deposits, floating debris, visible oil, odor, plant or algal growth, color or turbidity of other than natural origin,"

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<sup>6</sup> IEPA does not measure excessive algal growth in rivers or streams and, as the Board has heard in R04-25, does not normally measure dissolved oxygen levels at the time of day at which violations of the DO standards are likely to be found.

<sup>7</sup> There is also evidence that phosphorus, as well as nitrogen, is contributing to the "dead zone" in the Gulf of Mexico. (Exhibit E)

<sup>8</sup> Illinois State Water Survey, Considerations in Water Use Planning for the Fox River, Contract Report 586 (September 1995) pp. 100, 104, 113, 120,122. (Exhibit F)

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- 302.204 which provides that pH shall be within the range of 6.5 to 9.0 except for natural causes, and
- 302.206 Dissolved Oxygen.

Although it is well aware that phosphorus discharges can cause or contribute to violations of the three water quality standards in Illinois waters, IEPA does not now generally limit phosphorus discharges on the grounds that Illinois does not currently have numeric nutrient standards. However, issuing permits that ignore the effect of nutrients on algal growth, dissolved oxygen levels and pH does not comply with the federal and state requirements that NPDES permits control all pollutants that may cause or contribute to a violation of state numeric or narrative water quality standards.

IEPA has now proposed a 1 mg/L effluent limit for new or increased discharges of phosphorus.<sup>9</sup> This would basically be a step toward limiting the extent to which the problems caused by phosphorus in Illinois waters and waters downstream of Illinois will get worse during the period that numeric phosphorus standards are developed.

Even for limiting the extent to which things will get worse during the interim, the IEPA proposal is a very modest step. In a similar situation in which it was known that phosphorus was harming the Great Lakes but the exact extent of the controls needed were unknown, the United States and Canada agreed on 1 mg/L phosphorus limits on both new and existing dischargers to the Lake Michigan basin and on a 0.5 mg/L limit for new and existing dischargers to Lake Erie

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<sup>9</sup> Section 39(a) of the Illinois Environmental Protection Act clearly places the burden on the applicant to offer "proof" that its proposed permit "will not cause the a violation of this Act or of regulations thereof." Permits that allow discharges that may cause or contribute to violations of water quality standards violate 40 CFR 122.44(d) and the Illinois regulations that incorporate those federal requirements. 35 Ill. Adm. Code 309.141. Accordingly, the Agency should not grant NPDES permits for discharges without proof by the applicant that the discharge will not cause or contribute to violations of state dissolved oxygen standards and other standards.

and Lake Ontario. In areas of the country where nutrients are being seriously addressed, limits well below 0.5 mg/L are common. (see Testimony of Beth Wentzel) Moreover, given that the U.S. EPA 2000 and 2001 criteria documents for nutrients suggest that Illinois numeric phosphorus standards should be under .08 mg/L, an effluent limit of 1.0 mg/L should be seen as a very conservative step even by those with hopes that the final Illinois water quality standards will be a substantial multiple of the U.S. EPA criteria.

**B. Antidegradation requires that new or increase discharges be limited to 1 mg/L of phosphorus or less.**

The Agency's proposal is limited to new or increased discharges. Such discharges are already subject to antidegradation regulations. Under the antidegradation regulations, lowering of water quality may only be allowed if it is necessary to accommodate important economic or social development. 40 CFR 131.12; 35 Ill. Adm. Code 302.105(c). Treatment alternatives must be considered. See 35 Ill. Adm. Code 302.105(f)(1)(D) because a lowering of water quality is not necessary if it can practicably be avoided.

As stated by 35 Ill. Adm. Code 105(c)(2)(B)(iii), before a new or increased loading may be allowed all "technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading" must be incorporated. U.S. EPA in its Water Quality Standards Handbook (4<sup>th</sup> Edition 1994) explained:

[Lowering water quality is allowed]only in a few extraordinary circumstances where the economic and social need for the activity clearly outweighs the benefit of maintaining water quality above that required for "fishable/swimmable" water, and both cannot be achieved. The burden of demonstration on the individual proposing such activity will be very high. In any case, moreover, the existing use must be maintained and the activity shall not preclude the maintenance of a "fishable swimmable" level of water quality protection. (p. 4-7)

New or increased discharges of phosphorus, then, are only permissible to the extent it is necessary for dischargers to discharge more than a monthly average of 1 mg/L of phosphorus. It is clear, however, that it is never necessary for the dischargers covered by the proposed IEPA effluent limit to discharge more than 1 mg/L phosphorus. As detailed in the testimony of Beth Wentzel, dischargers throughout the Great Lakes Basin, very large numbers of dischargers across the country and numerous Illinois dischargers have met such limits, in some cases for decades, without stifling their economic or social development. Particularly as limited to relatively large dischargers, the Agency proposal adds little to existing antidegradation requirements and adoption of the Agency proposal by the Board will not create significant new legal requirements for Illinois dischargers. The main role of the new effluent rule will be to clarify for permit writers and permit applicants that phosphorus limits at least as tight as 1 mg/L will be required. (see August 30, 2004 Tr. 54-55).

### **Conclusion**

The IEPA phosphorus effluent limit proposal in general is supported by the provisions of the Clean Water Act and the Illinois Environmental Protection Act. In further testimony, language is proposed that would improve the proposal by clarifying its language and assuring that it cannot be read to violate the basic federal and state rules that NPDES permits must comply with the antidegradation policy and cannot allow discharge of pollutants that would cause or contribute to the violation of numeric or narrative water quality standards.