ALCOA

OFFICIAL COMMENT

Alcoa

Warrick Operations
Highway 66
PO Box 10
Newburgh, IN 47629-0010 USA

January 19th, 2010

Dept. Of Environmental Management
Commissioner's Office

JAN 25 2010

CERTIFIED MAIL 7009 0800 0001 9091 0215

Indiana Department of Environmental Management
Office of Commissioner
100 North Senate Avenue, Rm IGCN 1301
Indianapolis, Indiana 46204

RE: Request for Time Extension for Comments on Anitdegradation Rule

Dear Mr. Easterly,

As previously submitted, the IMA (Indiana Manufacturers Association) requested an extension for the comment period associated with the second notice draft of the antidegradation rule. As previously mentioned the draft was issued just prior to the holidays. Alcoa-Warrick Operations typically slows down and most everyone is on vacation at that time of the year. This year was no different. Since we lost over two weeks of time to review the "minor" changes and the changes and issues, in our opinion, are significant, we request an additional 30 days to ensure that the correct data and comments can be submitted to the agency to ensure that the agency has an opportunity to receive and evaluate all of the information necessary for this rule.

Additionally, we are very disappointed that the agency views IMA as a single entity when in fact they are representing numerous facilities with varied manufacturing functions. My hope was that we would not need to make an additional request on top of the request already submitted.

Secondly, there are minor changes in some of the language that has a great impact on the interpretation and application of the rule. These items need the proper attention and evaluation and that is why we are requesting additional time.

If you have any questions, please feel free to contact me.

Sincerely,

Denny Wene
Senior Staff Environmental Engineer
Alcoa Warrick Operations
812-853-4625

BARNES & THORNBURG

Suite 4400
One North Wacker Drive
Chicago, Illinois 60606-2809 U.S.A.
(312) 357-1313
Fax (312) 759-5646

www.brlaw.com

January 29, 2010

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Avenue
MC 65-41
Indianapolis, Indiana 46204-2251

Re: Comments on LSA Document #08-764, Antidegradation Standards and Implementation Procedures

INTRODUCTION

On December 16, 2009, the Indiana Department of Environmental Management ("IDEM") published a second notice draft rule concerning antidegradation standards and implementation procedures ("Proposed Rule"). The notice indicated that comments must be provided to IDEM by January 30, 2010.

The Proposed Rule contains a number of revisions to the current Indiana water quality standards rules. Some of these revisions will result in more frequent issuance of permit limits, more stringent permit limits, significant changes in facility operations, and restrictions or even prohibitions on new and increased discharges. These changes will lead to enormous additional compliance costs, increases in taxes for Indiana residents and businesses, and adverse impacts on economic growth and employment in the State. Despite these significant impacts, we believe that there will be little environmental benefit from some of the new requirements. Therefore, we urge IDEM and the Board to consider, for each proposed regulatory change, whether the change is truly necessary and whether its benefits justify the resulting social and economic impacts.

We have attempted to perform a careful evaluation of each significant provision in the Proposed Rule. Based on that evaluation, these comments provide recommendations as to how the Proposed Rule should be revised before adoption by the Board. Where possible, we have tried to offer constructive suggestions as to how the Proposed Rule should be changed to address the legal, technical and policy concerns that we have raised. We urge IDEM and the Indiana Water Pollution Control Board ("Board") to seriously consider these recommendations as they move forward with this rulemaking.

ANTIDEGRADATION REQUIREMENTS

As part of the Proposed Rule, IDEM has included an extensive set of provisions that impose requirements on dischargers to waters that already have water quality that is better than applicable water quality standards, and impose additional requirements on dischargers to waters that have significant resource value. The Proposed Rule would have substantial adverse social and economic impacts, due to requirements that have no sound scientific basis. Moreover, the scope of the antidegradation rules is overly broad, and the antidegradation review process requires IDEM to make determinations concerning complicated social and economic factors, for which the agency is ill-equipped. As a result, implementation of the Proposed Rule has the potential to create substantial additional delays in the processing of permit applications and requests for permit modifications. These concerns are discussed in detail below, along with suggested changes that would ameliorate those impacts while still protecting the quality of Indiana's waters.

I. GENERAL COMMENTS

A. The Proposed Rule Imposes Requirements Beyond Those Needed To Meet Water Quality Standards.

As an initial matter, it is important to note one critical fact: antidegradation concerns waters that have water quality better than applicable water quality standards. For these waters, IDEM will impose additional requirements because the water constitutes an important resource that, for policy reasons, is deemed worthy of special protection. This is a policy judgment, not an environmental protection judgment, because water quality already is sufficiently protected by water quality standards. In making that policy judgment, IDEM and the Board must take a broad range of factors into account, including the adverse social and economic impacts from imposition of onerous antidegradation requirements.

B. Certain Provisions in the Proposed Rule Should Be Clarified.

IDEM should clarify the Proposed Rule in order to make antidegradation requirements easier for permit applicants to understand and for IDEM to implement. Specifically, the regulations more clearly should spell out: (1) when an applicant seeking permission for an increase in its discharge must submit an antidegradation demonstration; (2) the required content for such a demonstration; and (3) the legal standard by which the adequacy of the demonstration will be evaluated and any increase allowed. Clear regulations would provide a much-needed guide and certainty for industry, the public and IDEM.

Antidegradation review can be time-consuming and expensive. Such review also can introduce a substantial element of uncertainty into business planning and prediction as to what the outcome will be. Therefore, the Proposed Rule also should contain (1) an applicability

provision that uses a bright line trigger that necessitates a new or modified NPDES permit; and (2) a provision pertaining to the time for IDEM's rejection or approval of exemption applications. Those in the regulated community should be informed as quickly as possible whether IDEM accepts or rejects an exemption application, and need the certainty of knowing that there is a clear time period by which they can expect such a determination.

In addition, it is possible that those in the regulated community may encounter situations in which they will have a temporary increase due to maintenance issues or the installation of new equipment, which cause discharges within existing capacity and pursuant to an approved operation within the context of their permit. Requiring permittees to obtain confirmation from IDEM to be sure they are not triggering antidegradation review in such cases would be unduly burdensome for both the agency and the permittee. Similarly, there may be cases in which a permittee may have other types of short term, emergency use needs. We suggest that the Proposed Rule contain a provision to address this issue, in which the permittee may notify IDEM by telephone and provide the relevant information, with a follow-up written notification within five (5) business days.

Moreover, there is no clear provision in the Proposed Rule concerning projects already reviewed under the current antidegradation rule. For example, if a project has been reviewed and complies with the current antidegradation requirements, IDEM should not review it again under the Proposed Rule, even if that project has not been completed as of the date that the Proposed Rule is finalized. The Proposed Rule should be revised to include language that clarifies that projects reviewed under the old rule are not subject to a reopener once the Proposed Rule becomes effective.

II. 327 IAC 2-1.3-6: TRIGGER FOR ANTIDEGRADATION DEMONSTRATION

The Proposed Rule includes a trigger to conduct an antidegradation review when there is a new or increased loading of a pollutant of concern that results in "significant lowering of water quality" in the receiving water body. See Proposed Rule at § 2-1.3-6(a). There are some proposed discharges that will result in an increased loading of a pollutant of concern although there is no need for a new or modified NPDES permit limit. This approach should be modified so that an antidegradation review is required only when a new or increased discharge triggers the need for a new or modified NPDES permit limit and involves a significant lowering of water quality above a specified de minimis threshold.

The current regulatory approach should be maintained, so that an antidegradation review is required when a new or increased discharge triggers the need for a new or modified NPDES permit limit due to a significant lowering of water quality above a de minimis allowance. The de minimis aspect below which antidegradation procedures do not apply should be kept as part of the applicability section. Using new or increased permit limits as the trigger clearly allows

facilities to continue their normal operational practices, which frequently rely on a significant margin of safety to ensure that normal operational variability does not result in permit violations. If IDEM does not revise the Proposed Rule to maintain this trigger for antidegradation review, the Proposed Rule should be revised to clarify that incursions into normal operational safety margins due to anticipated variability and other routine increases should not trigger review.

In addition, there currently is no description of the baseline year that the company is to use to assess the increases below de minimis, and no description of (1) how this would be tracked, and (2) who would be responsible for tracking it. In its response to Comments on the First Notice of Proposed Rulemaking, IDEM alluded to the notion that the unused loading capacity as of the date of the first request would be the baseline. See Summary Response to Comments from the First Notice Period at 15-16.

III. 327 IAC 2-1.3-2: DEFINITIONS

A. Applicability of Definitions

This section states that the definitions apply throughout draft new rule 327 IAC 2-1.3, and to 327 IAC 2-1 (water quality standards for waters outside the Great Lakes system), and 327 IAC 2-1.5 (water quality standards for Great Lakes system waters). However, both 327 IAC 2-1 and 327 IAC 2-1.5 contain a set of definitions, and many of the definitions in this section are duplicative of those definitions. Therefore, the definitions in this section should apply only to Proposed Rule 327 IAC 2-1.3.

B. (9) "CERCLA"

This definition identifies the federal statute by providing a code citation (42 U.S.C. 9601 to 9675) and amendment date (October 11, 1996). CERCLA has been amended since October 11, 1996. The Proposed Rule should be updated to reflect more recent amendments.

C. (10) "Clean Water Act" or "CWA"

This definition identifies the federal statute by providing a code citation (33 U.S.C. 1251 *et seq.*) and amendment date (October 11, 1996). The CWA has been amended since October 11, 1996. The Proposed Rule should be updated to reflect more recent amendments.

D. (13) "Community"

This definition provides that "community" means "a general collective term to describe the varieties of aquatic species and associated organisms living together in a waterbody." That definition applies to the use of the term in several provisions of the rule. However, the definition does not apply to how the term is used in other provisions, such as:

327 IAC 2-1.3-6 (b)(15)(E) *Community* housing needs.
327 IAC 2-1.3-6 (b)(15)(G) The impact on the *community* tax base.

(Emphasis added). In these two sample provisions, "community" refers to the human population in the area in which the proposed activity will take place. To avoid confusion, these two provisions should be revised so that a term other than "community" is used. An appropriate substitute term would be "area in which the receiving waters are located."

E. (15) "Degradation"

It is unclear why it is necessary to define this term as it concerns this rulemaking, because the balance of the Proposed Rule sets forth the antidegradation standards and implementation procedures that apply to all waters. Therefore, this term should be removed from the definition.

F. (47) "RCRA"

This definition identifies the federal statute by providing a code citation (42 U.S.C. 6901 to 6992k) and amendment date (October 19, 1996). RCRA was not amended on October 19, 1996; it was amended on March 23, 1996. The Proposed Rule should be updated to reflect the correct date and any more recent amendments.

G. (57) "Threatened or endangered species"

This definition includes species listed pursuant to the federal Endangered Species Act, as well as the following Indiana listings:

(B) Species listed as state threatened or endangered by the Indiana department of natural resources under IC 14-22-34;

(C) Species designated as state threatened or endangered species in the January 22, 1997, database for endangered, threatened, rare and special concern species maintained by the Indiana natural heritage data center, division of nature preserves, department of natural resources.

The antidegradation rule should not contain any special provisions concerning federal or state threatened or endangered species. Such treatment is unnecessary and inappropriate, because protection of threatened and endangered species already is taken into consideration in the adoption of water quality criteria and in permitting actions. Therefore, the definition of threatened and endangered species should be deleted.

In addition, only the federal listings have been properly adopted after notice and comment. Species that are listed only on an informal or internal agency list, such as the database

maintained by the Indiana Natural Heritage Data Center, have not been subjected to the full array of public participation procedures, which is necessary before they can serve as the basis for enforceable permit requirements.

H. (58) "Tier I criteria"

This definition references the procedures in 327 IAC 2-1-8.2 for waters outside of the Great Lakes system. However, Method 3 in that rule provision is actually a Tier II value equivalent method. Thus, the definition should be revised to make clear that it only applies to Methods 1 and 2 in 327 IAC 2-1-8.2.

I. (59) "Tier II values"

As is explained in detail later in these comments, antidegradation requirements should not be applied to Tier II values. Thus, this definition should be deleted.

J. (71) "Whole effluent toxicity"

This definition provides that "whole effluent toxicity" means the "aggregate toxic effect of an effluent measured directly by a toxicity test." This definition should be clearly linked to toxicity test methods in the 40 C.F.R. Part 136 methodologies, so that the definition is not so broad as to include toxicity tests that are more specific to the testing of pure chemicals in support of assessing generational impacts. Only the 40 C.F.R. Part 136 methodologies generate data that properly may be interpreted in the context of a wastewater discharge and receiving water ecosystem. The definition should be revised as follows:

> "Whole effluent toxicity" means the aggregate toxic effect of an effluent measured directly by a toxicity test performed in accordance with approved methodologies under 40 C.F.R. Part 136.

IV. 327 IAC 2-1.3-3: ANTIDEGRADATION STANDARDS

A. The Exemption For CWA § 316(a) Alternative Thermal Effluent Limits Should Be Applied To All Waters.

The provision in Proposed Rule 327 IAC 2-1.3-3(e) concerning alternative thermal effluent limitations pursuant to CWA § 316(a) should be applied to all waters. Currently, the provision states that it specifically does not apply to ONRWs. There is no reason for limiting this provision to waters other than ONRWs. This provision is based upon the federal antidegradation regulation in 40 C.F.R. § 131.12(a)(4), which is not limited in application to waters that are not specially designated waters. Currently, there are no ONRWs in Indiana, which is a further reason to delete this exclusion.

It is unclear how IDEM would implement antidegradation review in cases in which it decides to provide alternative effluent limitations. CWA § 316(a) allows permitting authorities to issue alternative thermal effluent limitations upon a demonstration that such limitations will "assure the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in and on that body of water." This process results in thermal limits that are based on an evaluation of the aquatic life designated use, rather than limits based upon the numeric criteria for temperature. Therefore, the antidegradation implementation procedures set forth in the Proposed Rule would not be applicable to alternative effluent limitations. The Proposed Rule provision should be revised so that it applies to all waters.

In addition, the response to comments contained in the second notice indicates that the process for granting CWA § 316(a) variances does not satisfy antidegradation requirements. This is inconsistent with the Proposed Rule at 327 IAC 2-1.3-3(e), and should be revised.

B. Parties Who Have Received A CWA § 316(a) Variance Should Not Be Required To Undergo Antidegradation Review.

In addition, the Proposed Rule should be revised to provide that antidegradation review is not required for agency-approved variances. All variance applications must include a review of both the types of technology capable of treating the pollutant of concern and the social and economic costs of installing and operating each type of technology. This review is very similar to the technology review and demonstration of social or economic importance that is required for antidegradation review.

In fact, the United States Environmental Protection Agency ("U.S. EPA") recommends that States use the same process for reviewing social and economic impacts for variances and antidegradation review. *See* Interim Economic Guidance for Water Quality Standards Workbook, EPA 823/B-95-002 (March 1, 1995). Thus, if IDEM has granted a variance to a discharger, it makes sense that the discharger should not also need to complete an antidegradation demonstration. A CWA § 316(a) demonstration affirmatively satisfies antidegradation requirements; thus, no additional review beyond the demonstration that the party already has obtained the variance should be required.

V. 327 IAC 2-1.3-4: EXEMPTIONS FROM THE ANTIDEGRADATION DEMONSTRATION REQUIREMENTS

A. General Support For Exemptions From the Antidegradation Requirements.

As part of the Proposed Rule, IDEM has specified that certain types of discharges are exempt from antidegradation demonstration requirements. We support the inclusion of these provisions, which will help ensure that the anti-degradation process stays focused on significant

actions and does not discourage worthwhile projects. However, we believe that the exemption provisions should be refined.

B. Support For De Minimis Exemptions.

NPDES permits are not issued unless the proposed discharge is treated with appropriate technology and complies with water quality standards. However, the Proposed Rule goes beyond assuring that the discharges are safe – by requiring review of changes in water quality that may result from increased or new discharges, even though those changes would not cause any violation of water quality standards.

Antidegradation review imposes significant additional costs on the regulated community and ultimately on their customers. Those costs are principally the additional time and expense involved in complying with the antidegradation requirements. Where the effect of a new or increased discharge on the environment is insignificant (*i.e.*, is less than the de minimis threshold), there is no benefit to requiring this commitment of time and money by the public, the regulated community, and government agencies. Requiring extensive review of insignificant or inconsequential discharges that clearly will remain below the water quality standards is punitive to industry without offering any meaningful added protection to human health or the environment.

Senate Enrolled Act 431 (2000) ("SEA 431") requires the Board to adopt a rule for outstanding state resource waters ("OSRWs") that includes a de minimis quantity of additional pollutant load for which a new or increased permit limit is required and below which antidegradation procedures do not apply. This de minimis concept should be extended to all high quality waters.

SEA 431 addressed, among other things, antidegradation implementation procedures for OSRWs. In particular, it amended IC 13-18-3-2 to require the Board to adopt antidegradation implementation procedures that include the following:

> (l)...(1) A definition of significant lowering of water quality that includes a de minimis quantity of additional pollutant load;
>
> (A) for which a new or increased permit is required; and
>
> (B) below which antidegradation implementation procedures do not apply.

See SEA 431, § 17, codified at IC 13-18-3-2-(l)(1).

This language unambiguously requires a de minimis level for OSRWs. This de minimis level is triggered when a discharger needs a new or increased permit limit. If the new or

increased discharge is below the de minimis level, the antidegradation implementation procedures do not apply to the discharge. Although the provisions of SEA 431 do not expressly apply to high quality waters that are not designated as OSRWs, it only makes sense to extend the de minimis concept in SEA 431 to all high quality waters. Otherwise, the antidegradation implementation procedures for regular high quality waters would be more stringent than the requirements for OSRWs.

U.S. EPA's final water quality guidance for the Great Lakes system provided antidegradation implementation procedures for bioaccumulative chemicals of concern ("BCCs") only. These procedures do not include a de minimis level. However, in the Supplementary Information Document ("SID") for the Great Lakes rules, U.S. EPA specifically stated that "[f]or non-BCCs, States and Tribes may include de minimis provisions in their antidegradation policy....De minimis provisions provide a means for States and Tribes to differentiate between actions that will likely result in an increased loading of a pollutant to a receiving water that is likely to have a significant impact on water quality and those that are unlikely to do so and focus review efforts on actions that will degrade water quality. It is reasonable to assume the loading increases of non-BCCs that will use less than ten percent of the remaining assimilative capacity in a water body will have a negligible effect on ambient water quality." *See* SID at 208.

In addition, in an August 10, 1995 U.S. EPA Memorandum entitled, "Tier 2 Antidegradation Reviews and Significance Thresholds" ("1995 Memorandum"), U.S. EPA recognized that it has afforded the states and tribes some discretion in determining what constitutes a significant lowering of water quality, and has accepted a range of approaches to defining a "significance threshold" over which full antidegradation review is required:

> This issue was considered at great length in the process of developing the Water Quality Guidance for the Great Lakes. Relying upon input offered during a four-year open public process involving environmental groups, industry representatives, and other experts, with numerous opportunities for public input, the directors of the Great Lakes states and EPA technical experts reached consensus on a significance threshold of ten percent (10%) of the available assimilative capacity, coupled with a cumulative cap. They determined that this threshold represented a reasonable balance between the need of the regulatory agencies to limit the number of actions involving non-BCCs (bioaccumulative chemicals of concern) that are subject to the detailed antidegradation demonstration requirements, and the need to protect and maintain water quality. They believed that any individual decision to lower water quality for non-BCCs that is limited to 10 percent of the available assimilative capacity represents minimal risk to the receiving water and is fully consistent with the objectives and goals of the Clean Water Act. A ten percent (10%) value is well within the range of values for significance thresholds that EPA has approved in other states as well. EPA considers this approach to

be workable and protective in identifying those significant lowerings of water quality that should receive full tier 2 antidegradation review...."

See 1995 Memorandum at 2.

IDEM's current antidegradation implementation procedures for high quality waters in the Great Lakes system provide a de minimis of ten percent of unused loading capacity, as long as at least ten percent (10%) of total loading capacity remains unused. See 327 IAC 5-2-11.3(b)(1)(B)(ii)(AA). Other states provide a similar de minimis exemption:

Ohio: "any net increase in the discharge of a regulated pollutant that is less than ten percent of the wasteload allocation to maintain water quality standards calculated using total maximum daily load procedures, provided that proposed lowering of water quality does not exceed eighty percent of the wasteload allocation...." This provision does not apply to BCCs in the Great Lakes system. Ohio Administrative Rule 3745-1-05(D)(1)(b)(i).

Michigan: "[i]ncreased loadings of a pollutant which do not involve a BCC and which use less than 10% of the unused loading capacity that exists at the time of the request." Michigan Rule 323.1098(9)(c).

Kentucky: "permit renewals and modifications that result in less than a twenty (20) percent increase in pollutant loading from the previously permitted pollutant loading [are exempt from implementation procedures for high quality waters]." 401 KAR 5:030(2)(b)(1)(e).

Wisconsin: "expected levels in the receiving water of the indicator parameters as a result of the proposed new or increased discharge" do not exceed "[t]he assimilative capacity multiplied by one-third for all indicator parameters except dissolved oxygen; or [t]he sum of the existing level multiplied by one-third for dissolved oxygen." Wisconsin Administrative Code NR 207.05(2)(d).

Colorado: For BCCs, "less than 10 percent of the existing total load to that portion of the segment impacted by the discharge for critical constituents; provided, [sic] that the cumulative impact of increased loadings from all sources shall not exceed 10 percent of the baseline total load established for the portion of the segment impacted by the discharge...." For non-BCCs, "less than 15 percent of the baseline available increment, provided that the cumulative increase in concentration from all sources shall not exceed 15 percent of the baseline available increment...." Colorado Administrative Regulation 31.8(3)(c)(i) and (ii).

Based on U.S. EPA guidance and other state regulations, we recommend that IDEM allow de minimis increases of less than ten percent of total loading capacity to both high quality waters and OSRWs.

C. Specific Comments on the Proposed Rule's DeMinimis/Cumulative Cap Provisions.

The Proposed Rule includes de minimis/cumulative cap provisions for high quality waters that are significantly different from the current provisions in the implementation procedures for the Great Lakes system, 327 IAC 5-2-11.3 ("current rule"). The current rule defines the de minimis/cumulative cap based upon unused loading capacity and total loading capacity.

Specifically, if as a result of a deliberate activity, a discharger requests a new permit limit or modified permit limit, and the increased limit (as mass) is less than 10 percent of the unused loading capacity and at least 10 percent of the total loading capacity ("TLC") remains unused after the increase, then the increase is considered a de minimis lowering of water quality. Thus, the activity and modified or new permit limit is not subject to the antidegradation demonstration requirements.

The current rule establishes a clear threshold based on the capacity that, cumulatively, ever could be allocated to effluent mass increases as 10 percent of TLC has to remain unused. That is, as multiple requests or multiple dischargers request small increases to discharge limits, the cumulative cap is:

90% TLC – Background Level = Cumulative Effluent Cap

As the TLC is based upon water quality criterion and the applicable stream design flow, the mass to remain unused is constant unless effluent load or background load changes dramatically.

In contrast to the current rule, the Proposed Rule defines the de minimis/cumulative cap based on only unused loading capacity. As in the current rule, for high quality waters the de minimis increase to a limit (or to a new limit) has to be less than or equal to 10 percent of the existing unused loading capacity, determined at the time of the specific proposed new or increased loading of the pollutant of concern.

The cumulative cap provision in the Proposed Rule is different than the one in the current rule. The current rule provides that at least 10 percent of the total loading capacity must remain unused; the Proposed Rule states that at least 75 percent of the unused loading capacity must remain unused. See Proposed Rule at 327 IAC 2-1.3-4(b)(1)(A)(i)(DD). OSRWs have similar issues, but a more stringent cumulative cap of 97.5 percent. See Proposed Rule at 327 IAC 2-1.3-4(b)(1)(B)(i)(DD).

IDEM indicated that it intended to substantially reduce the cumulative cap for high quality waters, based on the opinion in *Ohio Valley Environmental Coalition v. Horinko*, 279 F. Supp. 2d 732 (S.D. W.Va. Huntington Division 2003). That case concerned U.S. EPA's

approval of West Virginia's antidegradation rules. As it concerns de minimis/cumulative cap, the court determined that the administrative record supported U.S. EPA's approval of West Virginia's de minimis provision; however, the administrative record did not support U.S. EPA's approval of West Virginia's cumulative cap.

It should be noted that *Horinko* only is binding upon U.S. EPA as it concerns its review and approval of West Virginia's antidegradation rules. Furthermore, the court did not prohibit U.S. EPA from approving state rules that allow a de minimis lowering without an antidegradation demonstration. Rather, the court simply determined that U.S. EPA did not adequately justify its decision to approve West Virginia's approach concerning the cumulative cap. The additional observations the court made concerning the size of the cumulative cap were dicta – remarks that are irrelevant to the court's actual holding in the case. Thus, it is inappropriate to take those remarks out of context, especially to the extent of using them as the basis for making a significant change to the de minimis/cumulative cap provisions that currently apply to high quality waters.

In addition, the courts also have recognized that U.S. EPA has afforded the states and tribes some discretion in determining what constitutes a significant lowering of water quality. U.S. EPA has accepted a range of approaches to defining a "significance threshold" over which a full antidegradation review is required. This issue was considered at length in the process of developing the Water Quality Guidance for the Great Lakes. Relying on input offered during a four-year open public process involving environmental groups, industry representatives, and other experts, with numerous opportunities for public input, the directors of the eight Great Lakes states and U.S. EPA technical experts reached a consensus on a significance threshold value of ten percent (10%) of the available assimilative capacity, coupled with a cumulative cap. A ten percent (10%) value is within the range of values for significance thresholds that U.S. EPA has approved in other states. *See Kentucky Waterways Alliance v. Johnson*, No. 06-5614 (6th Cir. 2008) (holding that the 10 percent de minimis value in Kentucky's antidegradation regulations was acceptable).

IDEM has not presented data or information to show that the current de minimis/cumulative cap provisions are not satisfactory for managing antidegradation standard requirements with respect to minor increases to permit limits. In fact, the application of the cumulative cap and the definition of that cap in the current rule is appropriate and justifiable.

The de minimis allowance of 10 percent of unused loading capacity should be established as the default allowance, and the Proposed Rule should clarify that simple loading capacity calculations will be sufficient to demonstrate that a discharger qualifies under the de minimis provisions.

In addition, we recommend that the Proposed Rule also provide for the ability to establish an alternative de minimis threshold (similar to the Indiana rule providing a default mixing zone, but also allowing dischargers to seek alternate mixing zones). An alternative de minimis threshold would be appropriate under several circumstances in which it can be shown that a different value or method of determination would still result in a de minimis lowering. The following analyses and studies are examples of techniques to develop an alternative de minimis threshold in lieu of the default 10 percent de minimis value:

1. Correlation of the proposed increased effluent load to instream concentration response relative to water quality criteria. This involves determining how a de minimis increase would impact receiving stream water quality as measured by a relative change to the water quality criteria. The correlation would show how a small change in water quality criteria (originally designed to protect 95 percent of aquatic life) would still conservatively protect the indigenous organisms.

2. Incorporation of the non-conservative fate of a constituent of concern. For example, the nitrogen series decay can be integrated into a de minimis assessment for ammonia. A de minimis loading of greater than 10 percent may be kinetically reduced to less than 10 percent within the antidegradation segment of the receiving water.

3. Use of alternative receiving water design flows for effluent dominated waters. If the de minimis loading is discharged to a zero flow receiving water (i.e., 7Q10 = 0), than an alternative flow must be generated to determine the initial total loading capacity and subsequent remaining unused loading capacity. This alternative flow may be of the form of an upper level statistic (99th percentile, etc.) of the effluent flow itself or other representative flow during average receiving water flow conditions (either continuous or intermittent). Wet weather conditions and corresponding receiving water flow may also be analyzed.

4. Use of an alternative statistic for background concentration. Based on instream monitoring data, a background concentration statistic other than average/mean/median may be more appropriate considering the frequency of detection and the magnitude of detection relative to water quality criteria.

The Proposed Rule should provide a cumulative cap of 10 percent of the total loading capacity, consistent with the current rule. The following information can be used to demonstrate that this cumulative cap is consistent with a de minimis allowance. Several conservative assumptions already are applied to the determination of the cumulative de minimis cap of 10 percent of the total loading capacity that must remain unused. These assumptions include:

3. Use of alternative receiving water design flows for effluent dominated waters. If the de minimis loading is discharged to a zero flow receiving water (i.e., 7Q10 = 0), than an alternative flow must be generated to determine the initial total loading capacity and subsequent remaining unused loading capacity. This alternative flow may be of the form of an upper level statistic (99th percentile, etc.) of the effluent flow itself or other representative flow during average receiving water flow conditions (either continuous or intermittent). Wet weather conditions and corresponding receiving water flow may also be analyzed.

4. Use of an alternative statistic for background concentration. Based on instream monitoring data, a background concentration statistic other than average/mean/median may be more appropriate considering the frequency of detection and the magnitude of detection relative to water quality criteria.

The Proposed Rule should provide a cumulative cap of 10 percent of the total loading capacity, consistent with the current rule. The following information can be used to demonstrate that this cumulative cap is consistent with a de minimis allowance. Several conservative assumptions already are applied to the determination of the cumulative de minimis cap of 10 percent of the total loading capacity that must remain unused. These assumptions include:

1. Use of chronic water quality criteria to calculate the total loading capacity.

2. Use of low flow (i.e., 7Q10) for receiving water when calculating total loading capacity.

3. Use of a maximum permit limit for current effluent loading, if available.

4. Use of a maximum monthly average flow to calculate current effluent load, if the discharge does not have a permit limit.

5. Conservative nature of effluent for all constituents.

These assumptions are cumulative, that is, they are applied simultaneously. Therefore, the probability of impact due to a de minimis increase is reduced geometrically (multiplication) as the assumptions "overlap."

For example, the cumulative cap of 10 percent total loading capacity remaining unused can be interpreted as allowing cumulative de minimis effluent loading increases up to 90 percent of the total loading minus the background load. Under assumption #2 above, if the ratio of the median receiving water flow to the corresponding 7Q10 flow is 7:1 (typical for variety of Indiana receiving waters as indicated from USGS gauging station data), the de minimis loading increase on an average basis approximates as 90% / 7 = 13%. Applying assumption #4

simultaneously, if the ratio of the average effluent flow to maximum monthly average flow is 2:1 (arbitrary), then the de minimis loading increase on an average basis would further reduce to 13% ÷ 2 = 7%. Additional assumptions above would further reduce the de minimis loading based on average, typical conditions. This example illustrates the general nature (not particular calculation techniques) of cumulative conservative assumptions for the current de minimis loading cap, further supporting the retention of the cap in the proposed antidegradation rules.

The de minimis/cumulative cap provisions for OSRWs are far more stringent than the corresponding provisions for high quality waters. Such more stringent provisions do not comply with the requirements of SEA 431, which provide that OSRWs are subject to the same antidegradation requirements as high quality waters, plus an additional overall improvement requirement. IC 13-18-3-2(l) provides in relevant part:

> For a water body designated as an outstanding state resource water, the board shall provide by rule procedures that will ...
>
> (2) allow for increases and additions in pollutant loadings from an existing or new discharge if:
>
> (A) there will be an overall improvement in water quality for the outstanding state resource water as described in this section; and
>
> (B) the applicable requirements of 327 IAC 2-1-2(1) and 327 IAC 2-1-2(2) and 327 IAC 2-1.5-4(a) and 327 2-1.5-4(b) are met.

The 327 IAC sections referenced in this provision are the antidegradation requirements for all waters (Tier 1) and high quality waters (Tier 2). Application of this provision clearly requires that the OSRW antidegradation requirements, including specification of de minimis/cumulative cap provisions, should be the same as those for high quality waters. Therefore, the Proposed Rule should be revised so that the de minimis/cumulative cap provisions recommended in our previous comments on high quality waters also apply to OSRWs.

There is no technical or scientific basis for the requirement that the proposed net increase in the loading of a pollutant of concern is less than or equal to one percent (1%) of the existing unused loading capacity determined at the time of the specific proposed new or increased loading of the pollutant of concern. Similarly, there is no technical or scientific basis for the benchmark unused loading capacity figure of 97.5 percent -- the amount of unused loading capacity that must remain after new/increased discharges are allowed. See Proposed Rule § 2-1.3-4(b)(1)(B)(i)(CC). Based on the conservative nature of the assumptions underlying current antidegradation requirements, a ten percent de minimis level and ensuring that ten percent of

loading capacity remains after all increases are considered should be sufficient to protect both high quality waters and OSRWs. EPA agreed when it adopted the Great Lakes Initiative, which applied to all high quality waters, including the Great Lakes themselves. In addition, the only rationale provided by IDEM appears to be an analogy to Clean Air Act ("CAA") increments for Prevention of Significant Deterioration ("PSD"). However, there is no relationship between different PSD areas and waterbodies designated as high quality or OSRW, and no indication that what may be a sound scientific basis for CAA emission rules can be transferred without further analysis to wastewater discharges. IDEM should continue applying the de minimis and cumulative cap levels that EPA approved for all high quality waters, including OSRWs.

D. Antidegradation Review Should Not Be Required For WET and pH.

Proposed Rule § 2-1.3-4 sets forth procedures for determining whether a new or increased loading of a pollutant of concern is exempt from the antidegradation demonstration requirements. However, the Proposed Rule contains no appropriate provisions regarding WET and pH. WET and pH are non-conservative parameters, for which it is simply not feasible to construct procedures for anti-degradation review (for example, mass loading cannot be calculated for WET and pH). Therefore, the water quality criteria are the only valid reference point to use in assessing water impacts with respect to these parameters. The Proposed Rule should clearly provide that WET and pH shall not be subject to antidegradation review.

E. Antidegradation Review Should Not Be Required For TRC.

Similarly, total residual chlorine ("TRC") should not be subject to antidegradation review, but the Proposed Rule does not contain any appropriate provision regarding TRC. IDEM imposes effluent limitations for dischargers that use chlorine for disinfection or zebra mussel control. The concentration of water quality based effluent limits ("WQBELs") are below the level of quantification and often below the level of detection. Therefore, it is not possible to determine mass loading for TRC in a discharge. Moreover, TRC dissipates quickly, and the background concentration in the receiving water will always be zero. Thus, there is no loading capacity, either unused or total. As a result, it is not possible or necessary to construct antidegradation review procedures for TRC. The Proposed Rule should provide that TRC shall not be subject to antidegradation review.

F. Determining Total Loading Capacity When There is No Numeric Water Quality Standard.

The Proposed Rule does not address how to determine total loading capacity in cases where there is (1) a narrative water quality standard but no corresponding numeric water quality criteria; and (2) an existing or proposed limit derived from either technology-based effluent

limits (i.e., BAT, BPT, etc.) or Best Professional Judgment (i.e., historical performance, etc.). Many conventional pollutants such as BOD, COD and TSS apply these two scenarios in permits and the methods described in 327 IAC 2-1.3-4(b)(1)(A)(i)(BB) and (CC) to generate water quality criteria are not appropriate for these surrogate parameters where toxicity response information cannot be created. This is a similar problem for high quality waters that are also OSRWs, as described in 327 IAC 2-1.3-4(b)(1)(B)(i)(BB) and (CC).

IDEM should clarify the Proposed Rule to provide specific requirements for these types of situations or, more appropriately, state that the permittee would be exempt from antidegradation review and would not have to make an antidegradation demonstration for those parameters that do not have corresponding numeric water quality criteria at the time of the request for increase. Alternatively, IDEM could include a procedure that a permittee could follow to make a showing that there will be no significant impact (i.e., de minimis lowering of water quality) to a receiving water where there is no numeric standard.

G. Antidegradation Requirements Should Not Be Applied To Tier II Values; Alternatively, A Qualitative Trigger Should Be Used For Substances With Tier II Values For Purposes Of Requiring An Antidegradation Review.

The Proposed Rule extends its application to parameters for which a Tier II value can be calculated. We are very concerned about this treatment of Tier II values. Under the rules that apply to dischargers in the Great Lakes system, IDEM may develop a Tier II value based on as little as one test of water fleas (*daphnids*) and application of extremely large "uncertainty factors." These values will change over time – as more data is developed, IDEM will reevaluate its database, and also apply smaller uncertainty factors to take into account the greater amount of data. Thus, different dischargers, whose permits are reviewed at different times, will likely be faced with different Tier II values for the same exact substance.

In this circumstance, the antidegradation trigger level for the first discharger could be much smaller than for subsequent facilities, and the first discharger may have to go through antidegradation review while other, later dischargers will not be subject to those requirements, even though they are all discharging the same substance at the exact same level. This is an arbitrary, unfair system that bears no rational relationship to the actual environmental impact of facility activities.

Therefore, we believe that the antidegradation review process should not apply to substances that have Tier II values. At a minimum, IDEM should not apply numeric trigger levels. Instead, there should be a qualitative test, such as "significant impact on water quality." That would allow IDEM to assess the likely effect of the substance, without the result depending

solely on when the discharger has submitted its application and which uncertainty factor is currently appropriate for use in a Tier II value.

A qualitative trigger level would be especially appropriate for use in assessing whether to apply antidegradation review to major cations and anions, such as calcium, sodium, potassium, magnesium, manganese, carbonate, bicarbonate, phosphate and sulfate. Under previous versions of the Proposed Rules, these substances were subject to the Tier II value process. As a result, IDEM will derive very stringent Tier II values for the cations and anions, and when a discharger submits a request to increase its discharge of one of those materials, it will be very likely to trigger antidegradation review, because the trigger levels for review will be very small. However, this process does not consider the fact that evaluating toxicity of these substances is a complex matter. There are substantial differences in toxicity among the major ions (some ions present very little toxicity), and there will be differing responses of aquatic organisms depending on the ionic composition of waters. When evaluating the toxicity of a major ion, one must consider the toxicity effects of the opposing ion as well as the ionic balance of the solution. Application of strict numeric trigger levels in antidegradation review does not allow for evaluation of any of those factors. Therefore, if the cations and anions are to be subject to antidegradation review, the trigger level should be qualitative, such as "significant impact on water quality," so the appropriate factors can be considered.

H. Concentration Limits Are Not Appropriate In All Situations.

If IDEM imposes both a mass limit and a concentration limit, this provision should not be imposed outside the Great Lakes Basin. This provision was taken from the State's GLI rules. The State's GLI rules do not impose this rule outside the Great Lakes Basin. It is a significant change from the current rules, and IDEM has provided no reason why the current rules are inadequate.

If, despite the above comment, IDEM retains the mass/concentration requirement, then it at least needs to provide exemptions for situations in which application of this requirement would be either environmentally counterproductive or unnecessary. For instance, concentration limits can act as a disincentive to water conservation practices. Water conservation methods will often increase the concentration of a pollutant in a discharge, even when the total mass of the pollutant is decreased. Therefore, the requirement for a mass limit should not be applied in cases where it would discourage or prevent water conservation practices.

There are other situations in which application of both mass and concentration limits would clearly be unnecessary to protect water quality. For example, if the amount of the facility's effluent flow is very small in relation to the stream flow, then compliance with a mass

The State's GLI rules do not impose this rule outside the Great Lakes Basin. It is a significant change from the current rules, and IDEM has provided no reason why the current rules are inadequate.

If, despite the above comment, IDEM retains the mass/concentration requirement, then it at least needs to provide exemptions for situations in which application of this requirement would be either environmentally counterproductive or unnecessary. For instance, concentration limits can act as a disincentive to water conservation practices. Water conservation methods will often increase the concentration of a pollutant in a discharge, even when the total mass of the pollutant is decreased. Therefore, the requirement for a mass limit should not be applied in cases where it would discourage or prevent water conservation practices.

There are other situations in which application of both mass and concentration limits would clearly be unnecessary to protect water quality. For example, if the amount of the facility's effluent flow is very small in relation to the stream flow, then compliance with a mass limit should ensure that the waterbody would not be impaired on a concentration basis. Therefore, IDEM should not be required to apply a concentration limit in that case.

CONCLUSION

We have many significant concerns with the Proposed Rule. We believe that these concerns must be addressed before the rulemaking moves forward, and that incorporation of our suggested changes will result in an antidegradation rule that is workable and appropriate to protect the quality of Indiana's waters and meet all federal requirements for antidegradation review.

We appreciate the opportunity to comment on the Proposed Rule. If you have any questions concerning these comments, please feel free to contact me.

Very truly yours,

Fredric P. Andes

FPA/mr
583714.1

Exemption 6
Exemption 6

LSA Document #08-764 (Antidegradation)
Mary Ann Stevens, Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Avenue
MC 65-41
Indianapolis, IN 46204-2251

OFFICIAL COMMENT

1/14/10

Dear Ms. Stevens:

Lake Michigan deserves the highest level of protection from new or increased pollution. Indiana's protective rule must be STRONG to protect water quality as the Clean Water Act intended. I am writing to you to express my views on this matter, and to strongly urge you to make every effort to protect the beauty that is Lake Michigan -- it's what's best about Chicago, in my opinion.

Thank you for your time and attention in this matter.

Very truly yours,

Exemption 6

Exemption 6 (former IN resident, and always a lover of the environment)

Exemption 6
Exemption 6

OFFICIAL COMMENT January 14, 2010

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens, Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave.
MC 65-41
Indianapolis, Indiana 46204-2251.

Subject: Appendix 1 listing Atlantic bluefin, CITES, FWS-R9-IA-2009-N176, 96300-1671-0000 FY09R4

Dear Ms. Stevens:

Lake Michigan deserves the highest level of protection from new or increased pollution. Indiana's proposed rule must be strengthened to protect water quality as the Clean Water Act intended.

The federally mandated water quality rule proposed for Indiana, still falls short of protecting Lake Michigan. Introduced in 2008 and since vetted at four public meetings, the draft rule contradicts the intent of federal anti-degradation laws, which are meant to protect water quality while working to comply with existing standards.

Instead, Indiana's rule would trigger an anti-degradation review only when a new or increased discharge would increase the level of a pollutant to the degree it poses a potentially "detrimental effect" on lake uses.

Other concerns:

* The rule includes several unjustified exemptions, and excludes phosphorus, sediment and other key pollutants for which no thresholds exist from protective provisions -- even though these pollutants are known to harm water quality.

* The rule exempts so-called "de minimis" – or low-level -- new pollution discharges from a federal requirements that the pollution is a necessary byproduct of important local economic or social benefit.

The result: Using the methods proposed in the draft rule, state regulators could permit multiple new low-level discharges of a pollutant that together have a significant

cumulative impact on Lake Michigan's water quality, without any evidence that the additional pollution is justified.

Please strengthen the federally mandated rule, which sets a limit for how much new pollution can be discharged to Lake Michigan and other waterways in the state.

Sincerely,

[redacted]

Exemption 6

[redacted]

OFFICIAL COMMENT

January 15, 2010

Exemption 6

[redacted]

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens, Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave.
MC 65-41
Indianapolis, Indiana 46204-2251
Fax Number: (317) 233-5517

Dear Ms. Stevens,

I am writing to tell you my concern over the federally mandated water quality rule proposed for Indiana, which I believe falls short of adequately protecting Lake Michigan's water quality. I urge Indiana instead to improve the proposed antidegradation rule in order to uphold the highest level of protection for Lake Michigan's water quality. Lake Michigan is my backyard, I spend my summer swimming in the lake, I drink the water, and enjoy the wildlife. For these reasons and many more, I care deeply about this valuable resource. The water quality rule currently proposed for Indiana would prompt an antidegradation review only when the level of a pollutant poses a "detrimental effect"; this is a reactionary measure with harmful consequences rather than a preventative measure as the Clean Water Act intends. The water quality rule proposed for Indiana also includes several important exemptions such as the exclusion of phosphorus, sediment, and other significant pollutants known to impair water quality. In addition, it permits low-level pollution discharges for new pollutants, which combined can have significant consequences on water quality.

The current water quality rule proposed for Indiana is not acceptable as it prevents progress in improving water quality for Lake Michigan and I strongly encourage you to propose a more effective rule that upholds the highest level of protection for Lake Michigan's water quality. Thank you for your time.

Sincerely,

Exemption 6

[illegible]

Comments on IDEM's 2nd Notice Draft Rule (Antidegradation) from Environmental Coalition

January 29, 2010

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens
Rules Development Branch
Office of Legal Council
Indiana Department of Environmental Management
100 North Senate Avenue
MC 65-41
Indianapolis, IN 46204-2251
mstevens@idem.in.gov

Thomas Easterly
Commissioner, Office of the Commissioner
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204-2251
teasterl@idem.in.gov

Bruno Pigott
Assistant Commissioner
Office of Water Quality
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204-2251
bpigott@idem.in.gov

Martha Clark Mettler
Deputy Assistant Commissioner
Office of Water Quality
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204-2251
mclark@idem.in.gov

Dear Ms. Stevens, Mr. Easterly, Mr. Pigott, and Ms. Mettler:

You have requested comments on IDEM's draft antidegradation rule ("Draft Rule") in your second notice of comment period for the antidegradation rulemaking posted on December 16, 2009, LSA Document # 08-764. The Alliance for the Great Lakes, Conservation Law Center, Environmental Law and Policy Center, Hoosier Environmental Council, Natural Resources Defense Council, and Sierra Club Hoosier Chapter offer the following comments pursuant to IDEM's second notice. These organizations either have members in Indiana and

surrounding states who will be directly affected, and potentially injured, by the implementation of Indiana's antidegradation rules, or they represent such organizations. They are also affected by the continuing failure of Indiana to adopt antidegradation rules that comply with the Clean Water Act.

Our organizations have been involved in antidegradation policy development efforts in Indiana for many years. We have participated throughout IDEM's workshop and rulemaking process initiated in 2007 and submitted formal comments to IDEM dated April 9, 2008, June 23, 2008, October 15, 2008, November 13, 2008, and May 7, 2009. These comments should be considered part of the administrative record and should be read together with the present comments for the full position of the undersigned environmental organizations.

The purpose of a state antidegradation program, and the key principle of antidegradation policy, is to maintain and protect existing water quality, even where that water quality is better than applicable water quality criteria. The United States Environmental Protection Agency (EPA) Region VIII Guidance states this principle directly:

> Antidegradation recognizes that existing water quality has inherent value worthy of protection. Thus, unlike other aspects of water quality standards that are directed toward attainment of fully-protective levels of water quality (as defined by the applicable criteria), the purpose of antidegradation is to maintain and protect *existing* levels of water quality.[1]

Another way of stating this principle is with reference to the available assimilative (loading) capacity of a waterbody.[2] EPA views the assimilative capacity of a waterbody as "a valuable natural resource."[3] In order to protect this valuable resource, federal law requires states to "develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy." 40 C.F.R. §131.12(a). States must submit these policies and procedures to EPA for review and approval consistent with federal law. 40 C.F.R. §131.6.

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[1] U.S. EPA Region VIII Guidance: Antidegradation Implementation (August 1993), Page iii (emphasis added).

[2] Assimilative capacity can be defined as the amount of loading of a particular pollutant into a waterbody that can be allowed while at the same time protecting uses of the waterbody and assuring that the new or increased loading does not cause or contribute to a violation of water quality standards.

[3] Ephraim King, Director Office of Science and Technology, U.S. EPA, in guidance letter to Water Management Division Directors dated August 10, 2005.

As explained in detail in the body of these comments, the Draft Rule is not consistent with the Clean Water Act and is not properly approvable by EPA. The following bullet points summarize some of the major points from our detailed comments.

- The Draft Rule covers only pollutants that will have a "potentially detrimental effect on the designated or existing uses," which is equivalent to asking whether the discharge will have a "reasonable potential" to violate established state water quality criteria. See 327 IAC 2-1.3-2(43). Applying antidegradation only where a pollutant may have a "detrimental effect" so defined fails to protect the assimilative capacity of receiving waters (i.e. the increment of water quality that is better than the levels necessary for protecting designated uses) and therefore violates 40 C.F.R. §131.12(a)(2). This definition will also apparently exempt from antidegradation controls increased discharges of nitrogen, phosphorus, sediment and other important pollutants that currently lack numeric water quality criteria in Indiana, even though these pollutants are well-known as major causes of impairment of Indiana water bodies and water bodies downstream from Indiana, including the Gulf of Mexico.
- The Draft Rule allows dischargers to avoid a full analysis of alternative treatment techniques by accepting limits based on a number of conditions labeled as "BADCT." See 327 IAC 2-1.3-2(3) and 327 IAC 2-1.3-6(d)(1). Even assuming that such an approach might be acceptable in theory, the current proposal if adopted would allow much unnecessary new pollution, in clear conflict with 40 C.F.R. §131.12(a)(2).
- The Draft Rule fails to comply with EPA policy and recent court decisions regarding "de minimis" discharges. In the current version, dischargers can avoid antidegradation review by demonstrating "insignificant" impact on loading capacity. See 327 IAC 2-1.3-4(b). The calculations are complicated and will be difficult and expensive to implement. Furthermore, the current draft's de minimis procedures conflict with the legal requirement that a de minimis exception – if appropriate at all – should only apply "when the burdens of regulation yield a gain of trivial or no value." See *Kentucky Waterways Alliance v. Johnson*, 540 F.3d 466, 483, 491 (6th Cir. 2008). As in the Kentucky case, IDEM here has failed to carry its burden of justifying why the scenarios described in the draft rule are "truly de minimis" based on an "assessment of particular circumstances" in the record. *Id.* at 491.

- The Draft Rule contains a number of exemptions that have not and cannot be justified in the record. See 327 IAC 2-1.3-4(b)(4). In order to approve Indiana's rules, EPA would need to provide detailed technical analysis of the combined effect of all of these exemptions and determine whether all of the "Tier-2-review exemptions together permit significant degradation." *Kentucky Waterways,* 540 F.3d at 492. IDEM has presented no evidence that any of the four "exemptions," as a class of loadings, will have a de minimis impact upon the water quality of the impacted waters or are necessary to accommodate important social or economic development.
- The Draft Rule fails to clarify how antidegradation reviews will be conducted for general permits aside from a generic statement that "the department shall complete an antidegradation review of the rules of the board that authorize NPDES general permits." 327 IAC 2-1.3-1(c)(1). This language fails to ensure that activities permitted under general permits will cause only de minimis new pollution, and there is nothing in the record to show that the general permits will individually and cumulatively allow only de minimis pollution.
- The Draft Rule focuses narrowly on NPDES permits and fails to adequately address how the requirements of 40 C.F.R. §131.12 will be implemented for activities conducted pursuant to other circumstances, such as CWA §404 permits or §401 certifications.
- The Draft Rule exemptions for "short-term and temporary" lowering of water quality fail to address the fact that "short-term" discharges may still be unacceptable if they are of a sufficient magnitude to impact existing uses or significantly impact assimilative capacity. See 327 IAC 2-1.3-4(a) and 327 IAC 2-1.3-4(b)(3)(C).
- The Draft Rule inappropriately requires that "substantial weight" to be given to "any applicable determination by a governmental entity." See 327 IAC 2-1.3-6(c)(1). If construed to require IDEM to give special deference to governmental bodies whose purpose is not implementation of the CWA, this provision unlawfully delegates CWA authority and undermines the federal requirement for the delegated entity (here IDEM) to make decisions on NPDES permits after allowing full public participation in the decision.

We organize our comments at the first level by section of the Draft Rule: 327 IAC 2-1.3-1 through 327 IAC 2-1.3-8, and 327 IAC 5-2-11.2. Sections are headed by Roman numerals.

Within rule sections are section subdivisions, in their order of appearance in the Draft Rule. Section subdivisions are headed by capital letters. Each comment on a subdivision is preceded by an introduction, and if appropriate and helpful, is followed by a set of questions to help IDEM respond to our comments as well as suggested language to replace Draft Rule language. Within the comments we state where IDEM's choices are likely to be inconsistent with the Clean Water Act, EPA guidance, or Indiana law, and where IDEM's choices are ambiguous or unclear and thus are likely to frustrate efficient implementation. We have attached an amended version of the Draft Rule incorporating our suggested language as Attachment A.

We request that IDEM, as required by federal law, provide detailed responses to these comments and questions so that all parties are able to plan their activities with certainty and so that U.S. EPA has an adequate record for its review of the proposed antidegradation implementation procedures under 33 U.S.C. §1313(c)(3). EPA's minimum public participation procedures for the revision of water quality standards require the State to provide specific responses to public comments, which are then made part of the record for EPA's evaluation. (*See* 40 C.F.R. Part 25). One of the objectives of these requirements is "[t]o assure that government action is as responsive as possible to public concerns." (40 C.F.R. §25.3). Further, it is imperative that IDEM not adopt procedures that will lead to unnecessary controversy in the future and that EPA not be asked to approve procedures that could be construed or implemented in a manner that is inconsistent with the Clean Water Act. Moreover, such clarity is also necessary to allow EPA to draft properly its decision document regarding the procedures which will have to address these issues.

I. SECTION 1: 327 IAC 2-1.3-1 APPLICABILITY OF ANTIDEGRADATION STANDARDS AND IMPLEMENTATION PROCEDURES.

A. 327 IAC 2-1.3-1(b): Applicability of rule

INTRODUCTION

Draft Section 1(b) states as follows:

> Except as provided under section 4 of this rule, the antidegradation implementation procedures established by this rule apply to a proposed new or increased loading of a pollutant of concern to a surface water of the state.

COMMENTS

Draft Section 1(b) includes some situations and excludes others. The inclusions should be much broader than the exclusions. To be consistent with the Clean Water Act, the antidegradation implementation procedures should apply to all regulatory decisions that result in new or increased loadings of pollutants, whether or not the new or increased loadings are associated with a new, renewed, or modified NPDES permit limit. IDEM recognized this in its responses to comments from its first comment period for the antidegradation rulemaking:

> The draft rule includes a trigger to conduct an antidegradation review when there is a new or increased loading of a pollutant of concern that results in a significant lowering of water quality in the receiving water body. There are some proposed discharges that will result in an increased loading of a pollutant of concern although there is no need for a new or modified NPDES permit limit. When those proposed discharges will result in a significant lowering of water quality, IDEM believes, an antidegradation review is warranted. The trigger proposed in the draft rule allows for an antidegradation review when there is increased loading that will significantly lower water quality, whether or not there is a need for a new or modified NPDES permit limit. [4]

Draft Section 1(b) expressly narrows the scope of entry into the rule to exclude the so-called "exemptions" located in Draft Section 4. For example, Section 4(b)(2)(A) exempts from Section 6 of the rule new or increased loadings of a pollutant "within the existing capacity and processes that are covered by an existing applicable permit." Section 4(b)(2)(A) exemption would presumably not apply to situations where there is no existing permit; where there is a change in existing capacity and processes covered by the permit; or otherwise where a new, renewed, or modified permit limit is required for the new or increased loading.

Draft Section 1(b) is incomplete, however. In addition, Section 1(b) should include pollutant loadings from projects requiring CWA §401 water quality certifications for federal permits, such as Coast Guard Section 10 permits, Federal Energy Regulatory Commission permits, and U.S. Army Corps of Engineers Section 404 permits. IDEM omits mention of CWA §401 certification from Section 1(b) (and from the Draft Rule entirely), even though antidegradation clearly applies to §401 certifications. It is IDEM's stated position that "in most cases, the avoidance and

[4] IDEM Second Notice of Comment Period, LSA Document #08-764, DEVELOPMENT OF NEW RULES AND AMENDMENTS TO RULES CONCERNING ANTIDEGRADATION STANDARDS AND IMPLEMENTATION PROCEDURES, December 16, 2009, page 5.

minimization and mitigation necessary to satisfy the CWA 401 certification and 404 permit requirements will also satisfy antidegradation demonstration requirements."[5] But there is no indication in the record that IDEM has attempted to show that there is any truth to that blanket statement. As with general permits, if IDEM wants to exempt individual §401 certifications from antidegradation review, it must formally show in the administrative record that all such certifications will satisfy antidegradation demonstration requirements. EPA should not accept IDEM's claim without an analysis of whether the §401 certification process satisfies the antidegradation demonstration.

Questions

- Where in the record has IDEM shown with any formal analysis that the avoidance and minimization and mitigation necessary to satisfy the CWA §401 certification and §404 permit requirements will also satisfy antidegradation demonstration requirements? If not, why not? If so, where can the public obtain a copy of this analysis?

Suggested Rule Language

(b) Except as provided under section 4 of this rule, the antidegradation implementation procedures established by this rule apply to a proposed new or increased loading of a pollutant of concern to a surface water of the state, including but not limited to new or increased loadings authorized by NPDES permits, section 401 certifications, and section 404 permits.

B. 327 IAC 2-1.3-1(c): General permits

INTRODUCTION

Draft Section 1(c) states as follows:

(c) For activities covered by an NPDES general permit authorized by rule, the following apply:
(1) The department shall complete an antidegradation review of the rules of the board that authorize NPDES general permits.
(2) The board may modify those rules for purposes of antidegradation compliance.
(3) After an antidegradation review of a rule is conducted, activities covered by an NPDES general permit authorized by that rule are not required to undergo an additional antidegradation review.

[5] IDEM Second Notice of Comment Period, LSA Document #08-764, page 7.

COMMENTS

The Draft Rule fails to clarify how antidegradation reviews will be conducted for general permits aside from a generic statement that "the department shall complete an antidegradation review of the rules of the board that authorize NPDES general permits." 327 IAC 2-1.3-1(c)(1). IDEM must explain how it intends to apply antidegradation to activities authorized under general permits. See *Ohio Valley Environmental Coalition v. Horinko*, 279 F. Supp. 2d 732, 761-62 (S.D. W. Va. 2003) (rejecting West Virginia's exemption of activities covered under general permits from antidegradation review); see also U.S. EPA Region VII letters to Missouri Department of Natural Resources (dated 2/15/07 and 3/18/08) (requesting "additional information and clarity" on how Missouri will apply antidegradation to general permits, including clarification of the steps Missouri will take when it has "data or information indicating that a water body is being impacted by pollutants that could be discharged from facilities or activities covered under a general permit"). It is not acceptable for IDEM to simply require an antidegradation review of the board's general permit rules at some future point in time without describing what these antidegradation rules will actually require. The record fails to provide EPA with any means to determine whether these future procedures will comply with 40 C.F.R. §131.12 for activities covered by NPDES general permits. See *Kentucky Waterways*, 540 F.3d at 494 (requiring EPA to approve or deny a state's implementation procedures based on the record in front of the agency).

Also, the draft language fails to ensure that activities permitted under general permits will cause only de minimis new pollution, and there is nothing in the record to show that the general permits will individually and cumulatively allow only de minimis pollution. As explained in *Kentucky Waterways*, EPA may not rely on a state's "commitment" that it will comply with antidegradation requirements. See *Kentucky Waterways*, 540 F.3d at 494.

Questions

- Where in the record does IDEM indicate how antidegradation reviews for activities authorized by NPDES general permits will be conducted?
- Where in the record has IDEM shown that activities permitted under general permits will cause only de minimis new pollution?

Suggested Rule Language

(c) For activities covered by an NPDES general permit authorized by rule, the following apply:

(1) The department shall complete an antidegradation review of the rules of the board that authorize NPDES general permits in order to ensure that individual and/or cumulative uses of the general permit will not have the potential to significantly degrade water quality of the State. The board shall describe in writing how the general permit or control program meets the antidegradation requirements of this Section at the time each general permit or program is approved.

(2) The board shall modify those rules for purposes of antidegradation compliance in cycles not to exceed five years.

(3) General permits may not be used to authorize activities that result in a lowering of water quality in outstanding national resource waters or outstanding state resource waters.

(4) After an antidegradation review of a rule is conducted, activities covered by an NPDES general permit authorized by that rule are not required to undergo an additional antidegradation review, provided that a public notice of intent to proceed under a general permit is published in a local paper and on the Department's webpage including:

(A) a list of the facilities involved and the receiving waters they may affect, and

(B) the method by which public comments will be considered.

(5) Where it appears, based on public comment or the Department's own determination, that an individual use or multiple cumulative uses of a general permit may result in a significant lowering of water quality, the Department shall either require additional conditions for individual coverage which will prevent such degradation or require an individual permit.

II. SECTION 2: 327 IAC 2-1.3-2 DEFINITIONS.

A. 327 IAC 2-1.3-2(3): Definition of "BADCT"

INTRODUCTION

Draft Section 2(3) states in part as follows:

(3) "Best available demonstrated control technology" or "BADCT" means wastewater treatment capable of meeting the following effluent limitations or design criteria . . .

COMMENTS

The Draft Rule allows dischargers to avoid a full analysis of alternative treatment techniques by accepting limits based on a number of conditions labeled as "Best Available Demonstrated Control Technology" or "BADCT." Even assuming that such an approach might be acceptable in theory, the current proposal, if adopted, would allow much unnecessary new pollution, in clear conflict with 40 C.F.R. § 131.12(a)(2).

There are several problems with the definition of BADCT – these problems are discussed now. Additional discussion on the problems with the proposed implementation of BADCT is contained in the discussion below for Section 6(d)(1) of the Draft Rule.

First, the definition lists a number of effluent limits for pollutants that are commonly associated with sewage treatment plants. The current proposal requires only certain domestic pollutants to be treated out of the many pollutants that can be treated in domestic wastewater. The definition fails to contain limits on many other pollutants for which there are feasible control technologies and that are known to impair Indiana waterbodies and waterbodies downstream from Indiana dischargers. Most notably no BADCT limit is set for phosphorus although numerous POTWs (Publicly Owned Treatment Works) discharging in the Great Lakes Basin (including Indiana POTWs) have been meeting a limit of 1.0 mg/L phosphorus for decades. Recently, the Environmental Appeals Board in *City of Attleboro, MA Department of Wastewater* upheld a limit of 0.1 mg/L for phosphorus, so even this more stringent limit is technically feasible.

Second, the level of treatment required, even of the pollutants that must be treated, is not even close to the "best" treatment that has been shown to be feasible for those pollutants. There are certainly POTWs consistently meeting limits tighter than those set by BADCT for CBOD, TSS, ammonia, and total residual chlorine (TRC). The BADCT limit for chlorine, in fact, does not even meet the current Indiana TRC water quality standard and would allow violation of state water quality standards under some critical low flow conditions. The BADCT TRC limit appears to be based on outdated detection limits.

Third, in part (B) the definition allows IDEM to set BADCT on a "case-by-case basis" or through "best professional judgment" for lagoons, land application discharges, constructed wetlands, CSOs, and other "alternative treatment technologies." This discretion essentially swallows the rule and conflicts with the requirement that any permitted lowering of water quality be demonstrated to be "necessary" (see 40 C.F.R. § 131.12(a)(2)). The theoretical concept of BADCT is that it replaces a rigorous professional evaluation of different treatment options (i.e., the "necessary" analysis of the antidegradation demonstration). There is no indication or justification that setting BADCT on a "case-by-case basis" or through "best professional judgment" can adequately replace such an evaluation.

Fourth, the Draft Rule does not, but should, specify procedures for determining best available treatment technology and for updating BADCT when control technology improves.

Questions

- Why did IDEM omit phosphorus standards from the BADCT definition?
- What other wastewater pollutants for which there are feasible control technologies did IDEM decide to omit from the definition of BADCT, and why did IDEM omit them from the definition?
- Are the limitations in the definition of BADCT at least as strict as limitations included in any current NPDES permit in Indiana or surrounding states? If not, why not?
- Why did IDEM omit a procedure for updating BADCT when control technology improves? How will the limits be updated?
- How will best available treatment technology be determined? Through the alternatives analysis?
- Will setting BADCT on a "case-by-case basis" or through "best professional judgment" provide a means for determining "necessity" in compliance with 40 C.F.R. §131.12(a)(2)?
- How does IDEM intend to satisfy the Clean Water Act's public participation requirements when setting BADCT limits?

Suggested Rule Language

Delete the BADCT definition and exception for increased loadings using BADCT unless entirely reworked in concept and language.

B. 327 IAC 2-1.3-2(15): Definition of "degradation"

INTRODUCTION

Draft Section 2(15) states as follows:

(15) "Degradation" means, with respect to an NPDES permit for purposes of an antidegradation demonstration, the following:

(A) For an ONRW, any new or increased discharge of a pollutant of concern, except for a short-term, temporary increase as described under section 4(a) of this rule.

(B) For an HQW, including an OSRW, any new or increased loading of a pollutant of concern, except as provided under section 4 of this rule, to a surface water of the state that results in a significant lowering of water quality for that pollutant of concern.

COMMENTS

Antidegradation applies to any action resulting in a lowering of water quality and that is required to comply with water quality standards. IDEM should define degradation more broadly, rather than just in reference to the NPDES program.

Moreover, the acceptability and legality of this definition will depend on resolution of the issues identified in the comments on Section 4, since the draft definition explicitly references the Section 4 exemptions and some of the draft exemptions are inconsistent with the Clean Water Act.

Questions

- Why is the definition of degradation limited to the NPDES program, given that antidegradation policy applies to other water quality programs as well?
- How will Indiana's water quality management programs other than NPDES be addressed with respect to antidegradation?

Suggested Rule Language

(15) "Degradation" means, for purposes of an antidegradation demonstration, the following:

(A) For an ONRW, any new or increased discharge of a pollutant of concern, except for a short-term, temporary, and limited increase as described under section 4(a) of this rule.

(B) For an HQW, including an OSRW but excluding an ONRW, any new or increased loading of a pollutant of concern, except as provided under section 4 of this rule, to a surface water of the state that results in a significant lowering of water quality for that pollutant of concern.

C. 327 IAC 2-1.3-2(18): Definition of "discharge"

INTRODUCTION

Draft Section 2(18) states as follows:

(18) "Discharge" or "direct discharge", when used without qualification, means a discharge of a pollutant of concern.

COMMENTS

The term "discharge" in the Clean Water Act is with reference to a "pollutant." IDEM's definition is unclear when considered with its definition of "pollutant of concern," which is defined as a "pollutant" expected in a "discharge." Thus, it is unclear whether a discharge can contain a pollutant that is not a "pollutant of concern." In any case, we do not see why a definition of discharge is needed in the rule.

Questions

- Why does the rule require a definition of "discharge"?
- Given that Section 1(b) of the Draft Rule limits the applicability of the rule to "pollutants of concern," why not define "discharge" to be consistent with federal law and regulations?

Suggested Rule Language

(18) "Discharge" or "direct discharge", when used without qualification, means a discharge of a pollutant.

D. 327 IAC 2-1.3-2(43): Definition of "pollutant of concern"

INTRODUCTION

Draft Section 2(43) states as follows:

(43) "Pollutant of concern" means a pollutant that is reasonably expected to be present in:
(A) a discharge based on the source and nature of the discharge; and
(B) the receiving water in sufficient amounts to have a potentially detrimental effect on the designated or existing uses of the receiving water.

COMMENTS

The first part of the definition in Subsection (43)(A) reflects the discussion and agreement of the subgroup in the stakeholder meetings. The subgroup accepted this language as long as IDEM clarifies the process for identifying new pollutants of concern in companion

guidance. But Subsection (43)(B) adds a second component that is contrary to the Clean Water Act.

The plain language of part (B) says that a pollutant is a POC only if it is expected to be present in the receiving water at a concentration at or approaching that which would adversely affect uses – i.e., at a concentration with a "reasonable potential" to violate established state water quality criteria. That is, a new or increased loading would not be subject to any antidegradation review unless the loading plus any existing amounts of the pollutant in the receiving water have the potential to harm aquatic organisms or make water undrinkable or unswimmable. But this definition completely contradicts the purpose of antidegradation, which is to protect water quality while it is still better than the levels necessary to protect designated and existing uses.[6] Waiting until there is a potentially "detrimental effect" before conducting antidegradation review misses the whole point that antidegradation is meant to keep clean waters clean.

This definition may also exempt from antidegradation controls increased discharges of nitrogen, phosphorus, sediment, and other important pollutants that currently lack numeric water quality criteria in Indiana, even though these pollutants are well-known as major causes of impairment of Indiana water bodies and water bodies downstream from Indiana, including the Gulf of Mexico.[7]

The only concept that is consistent with the Clean Water Act is that for a pollutant to be a pollutant of concern there should be evidence that the pollutant could affect designated uses at some future loadings and concentrations, regardless of the actual or current loading in the receiving water and regardless of whether a water quality standard has been promulgated for that pollutant. Antidegradation is intended to preserve existing levels of water quality, regardless of whether the degradation is caused by one large discharge or many small discharges over time.

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[6] See Memorandum of Ephraim King August 10, 2005 (protection of assimilative capacity is major purpose of antidegradation).

[7] State – EPA Nutrient Innovations Task Group, *An Urgent Call to Action – Report of the State-EPA Nutrient Innovations Task Group* August 27, 2009 pp. 2-11; Committee on the Mississippi River and the Clean Water Act, National Research Council. Mississippi River Water Quality and the Clean Water Act: Progress, Challenges, and Opportunities. Washington D.C. National Academies Press, 2008. http://www.nap.edu/catalog.php?record_id=12051; IDEM Clean Lakes Program, NLA Results show many Indiana Lakes with Algal Toxins, Water Control, Fall 2009 Vol. 21, No. 3. (Ex.6)

Thus, a substance currently found at relatively small concentrations in a discharge or waterbody should not escape antidegradation review simply because the likely concentrations are currently too low to adversely affect designated uses. IDEM must maintain assimilative capacity for these substances well before they reach such harmful concentrations.

Questions

- Does IDEM intend to require an antidegradation review of a new or expanded discharge of pollutants only where that discharge has a "reasonable potential" to violate established water quality standards? If not, what purpose is served by the language in 327 IAC 2-1.3-2(43)(B)? If so, how is this approach consistent with the purpose of antidegradation to preserve loading capacity?
- Would changing 327 IAC 2-1.3-2(43)(B) to the suggested language better serve this purpose?
- How does IDEM plan conduct antidegradation reviews for new or increased loadings of pollutants that do not currently have established numeric water quality criteria, such as phosphorus and nitrogen?

Suggested Rule Language

To more accurately reflect the proper concept for this definition, Subsection (43) should state as follows:

> (43) "Pollutant of concern" means a pollutant that is reasonably expected to be present in a discharge based on the source and nature of the discharge.

This suggested language was the consensus language arrived at during the stakeholder working group sessions for this rulemaking. See Attachment B.

E. 327 IAC 2-1.3-2(60): Definition of "total loading capacity"

INTRODUCTION

Draft Section 2(60) states as follows:

> (60) "Total loading capacity" expressed as a mass loading rate for the waterbody in the area where the water quality is proposed to be lowered means the product of the applicable water quality criterion multiplied by the:
>
> (A) sum of the existing effluent flow, the proposed new or increased effluent flow, and the stream design flow used in the calculation of the WQBELs; or
>
> (B) alternate mixing zone volume approved for a discharge.

COMMENTS

The way that total loading capacity is defined in the Draft Rule is not likely to protect Lake Michigan in particular from significant increases in pollution.

For streams, the total loading capacity (TLC) for a pollutant would be calculated as follows:

WQC x [(existing effluent flow) + (proposed new or increased effluent flow) + (stream design flow)]

where WQC is the applicable water quality criterion. If the units of WQC are mg/liter and the flows are in units of liters per day, then TLC is in mg per day.

For discharges to Lake Michigan, which will likely be subject to an alternate mixing zone, the TLC for a pollutant would be calculated as follows:

WQC x [(alternate mixing zone volume)]

If the units of WQC are mg/liter and the mixing zone volume is in units of liters, then TLC is expressed in milligrams (i.e., mass). But this is not a "mass loading rate," which is required for the proposed definition of TLC. The proper quantity for Lake Michigan, to be consistent with the proposed definition, is the flow (i.e., volume per time) within an alternate mixing zone.

The determination of whether a lowering of water quality is de minimis in Section 4(b)(1) of the Draft Rule relies on the calculation of TLC. Regardless of whether TLC is calculated with units of mass or with units of mass per time, it appears questionable whether the approach used in the Draft Rule to calculate TLC will provide a meaningful determination of a de minimis threshold for new or increased discharges into Lake Michigan. Thus, the proposed definition of TLC may not protect Lake Michigan from significant increases in pollution loadings unsupported by an antidegradation demonstration. See our comments below on Draft Section 4(b)(1).

Questions

- How will the proposed approach to determining loading capacity be applied to new and increased discharges into Lake Michigan?
- What is the likely range of volumes for alternate mixing zones in Lake Michigan?
- How will this approach prevent significant lowering of water quality in Lake Michigan?

- How will the proposed approach to determining loading capacity be applied to pollutants that lack numeric water quality criteria, in steams and lakes?
- How will this approach prevent significant lowering of water quality due to pollutants that lack numeric water quality criteria?

Suggested Rule Language

The de minimis for Lake Michigan and other outstanding state resource waters should be set equal to the background concentration or "reference water quality." See proposed de minimis language and rationale in Attachments A and B.

III. SECTION 3: 327 IAC 2-1.3-3 ANTIDEGRADATION STANDARDS.

A. 327 IAC 2-1.3-3(c): Tier 2.9 standard

INTRODUCTION

The Draft Rule divides the Tier 2.9 standard into three categories:

1. 327 IAC 2-1.3-3(c)(1) applies to BCCs in OSRW (Outstanding State Resource Water) waterbodies and portions of their tributaries within the Great Lakes Basin (includes Lake Michigan). No new or increased loading of a BCC is allowed unless the loading is exempted as nonsignificant under Section 4 of the rule.
2. 327 IAC 2-1.3-3(c)(2) applies to BCCs in OSRW waterbodies and portions of their tributaries outside the Great Lakes Basin. The standard applied is the same as the Tier 2 standard with its necessary and importance tests, with the additional requirement under Ind. Code §§ 13-18-3-2, 13-18-3-14, and 13-11-2-50.5 that the applicant implement or fund a water quality improvement project.
3. 327 IAC 2-1.3-3(c)(3) applies to non-BCC pollutants in OSRW waterbodies and portions of their tributaries within or outside the Great Lakes Basin (includes Lake Michigan). The standard is the same as in 327 IAC 2-1.3-3(c)(2).

COMMENTS

The standard applied in 327 IAC 2-1.3-3(c)(2) is the same as the standard applied in 327 IAC 2-1.3-3(c)(3). IDEM should explain the reasoning behind this choice since subdivision (c)(2) applies to BCCs and subdivision (c)(3) applies to non-BCCs. The discharge of BCCs into OSRWs outside of the Great Lakes Basin should require more justification than the discharge of non-BCCs into OSRWs outside of the Great Lakes Basin.

The reasonableness of the Tier 2.9 standard also will depend on remedying the associated provisions in Sections 4 and 8 of the Draft Rule. In 327 IAC 2-1.3-3(c)(1), IDEM applies a relatively weak standard to BCCs in the Great Lakes Basin: *i.e.*, a new or increased loading is allowed if the applicant meets one of the exemptions in Section 4 of the Draft Rule. Because several of the exemptions in Section 4 are not appropriate, specifically the Section 4(b)(4) exemptions, the Tier 2.9 standard is unreasonably weakened. The problems with the Section 4(b)(4) exemptions also apply to the standards in 327 IAC 2-1.3-3(c)(2) (BCCs outside the Great Lakes Basin) and 327 IAC 2-1.3-3(c)(3) (non-BCCs).

Questions

- Why is the standard applied in 327 IAC 2-1.3-3(c)(2) the same as the standard applied in 327 IAC 2-1.3-3(c)(3)?

Suggested Rule Language

The discharge of BCCs into OSRWs outside of the Great Lakes Basin should require more justification than the discharge of non-BCCs into OSRWs outside of the Great Lakes Basin.

IV. SECTION 4: 327 IAC 2-1.3-4 EXEMPTIONS FROM THE ANTIDEGRADATION DEMONSTRATION REQUIREMENTS.

A. 327 IAC 2-1.3-4(a): Exemption for ONRWs

INTRODUCTION

Draft Section 4(a) states as follows:

Sec. 4. (a) For an ONRW, an exemption from the antidegradation demonstration requirements included in section 6 of this rule shall be allowed only for short-term, temporary, new, or increased discharges of non-BCCs if the following conditions are met:

(1) All reasonable methods for minimizing or preventing the new or increased loading have been taken.

(2) The discharge will last less than twelve (12) months or three hundred sixty-five (365) days.

(3) A proposed new or existing discharger applies for and receives authorization from the commissioner.

(4) The discharge will result only in a short-term, temporary (not to exceed twelve (12) months) lowering of water quality.

(5) The discharge complies with the antidegradation standard outlined in section 3(d) of this rule.

COMMENTS

Exemptions from antidegradation requirements for short term and temporary lowering of water quality are consistent with the applicable federal requirements only if the exemption includes (a) a limitation on the magnitude of the impact, and (b) a procedure for responding to multiple requests for exemptions and the cumulative effects of multiple short-term impacts. IDEM's draft provision includes neither.

EPA Region VIII guidance speaks directly to the issue of an exemption for short-term loading of pollutants into ONRWs.[8] The EPA views this exemption as requiring both a time component and a magnitude component. EPA uses the term "temporary and limited effect":

> A direct or upstream source that would result in a temporary *and* limited effect on ONRW water quality may be authorized. . . . As a *non-binding* rule of thumb, activities with durations less than one month *and* resulting in less than a 5% change in ambient concentration will be deemed to have temporary and limited effects.

(Emphasis in original).[9] The EPA guidance also sets forth several other factors that may be considered when deciding to grant this exemption:

> Decisions on individual proposed activities may be based on the following factors: (a) length of time during which water quality will be lowered, (b) percent change in ambient concentrations, (c) parameters affected, (d) likelihood for long-term water quality benefits to the segment . . . , (e) degree to which achieving applicable water quality standards during the proposed activity may be at risk, and (f) potential for any residual long-term influences on existing uses.[10]

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[8] See U.S. EPA Region VIII Guidance: Antidegradation Implementation (August 1993), Part IV(D), Page 11.
[9] *Id.*
[10] *Id.*

IDEM's exemption for ONRWs in the Draft Rule addresses the time of the activity and effect only, and not the magnitude of effect or any other factor listed in the EPA guidance. The provision as written is not likely to sufficiently protect ONRW water quality from even a time-limited loading of pollutants unless the magnitude of the impact – both individually and cumulatively -- is considered.

Furthermore, the provision should clarify that it applies only to the Tier 3 antidegradation standard for HQWs that are in ONRWs, and does not excuse compliance with the Tier 1 antidegradation standard at 327 IAC 2-1.3-3(a).

Questions

- Why does 327 IAC 2-1.3-4(a) substantially deviate from EPA guidance on this exemption by omitting a limitation on the magnitude of the allowable effect as well as other applicable factors recommended by EPA?
- How will IDEM handle more than one request for a short-term and temporary discharge to an ORNW?

Suggested Rule Language

(a) For an ONRW, an exemption from the antidegradation demonstration requirements included in section 6 of this rule shall be allowed only for new or increased short-term, temporary, and limited discharges of non-BCCs if the following conditions are met:

(1) All reasonable methods for minimizing or preventing the new or increased loading have been taken.
(2) The discharge will last less than twelve (12) months or three hundred sixty-five (365) days.
(3) A proposed new or existing discharger applies for and receives authorization from the commissioner.
(4) The discharge will result only in a short-term, temporary (not to exceed twelve (12) months) lowering of water quality.
(5) The discharge, by itself and along with additional discharges to the ORNW exempted under this subsection, will not result in more than a 2.5% change in the ambient concentrations of the pollutants discharged.
(6) The lowering of water quality will not put at risk achieving applicable water quality standards during the proposed activity or have a potential for any residual long-term influences on existing uses.
(7) The discharge complies with the antidegradation standard outlined in section 3(d) of this rule.

B. 327 IAC 2-1.3-4(b)(1): De minimis lowering of water quality

INTRODUCTION

The de minimis exemption contains two components: (1) a maximum percentage of the unused loading capacity that may be allocated to each applicant ("applicant de minimis"); and (2) a percentage of the total loading capacity that must remain after loading capacity is allocated to all applicants cumulatively ("cumulative cap").

For waters not designated as ONRW or OSRW, the Draft Rule divides the de minimis exemption into three categories:

1. 327 IAC 2-1.3-4(b)(1)(A)(i)(AA) applies to non-BCC pollutants Applicant de minimis is 10 percent of the existing unused loading capacity of the waterbody, mixing zone, or other delineated area.
2. 327 IAC 2-1.3-4(b)(1)(A)(i)(BB) applies to non-BCC toxic substances, with no water quality criterion, in waters outside the Great Lakes Basin. Applicant de minimis is 20 percent of the existing unused loading capacity.
3. 327 IAC 2-1.3-4(b)(1)(A)(i)(CC) applies to non-BCC toxic substances, with no water quality criterion, in waters within the Great Lakes Basin. Applicant de minimis is 20 percent of the existing unused loading capacity, same as in (BB).

For every request after the time of the permit issuance for the initial increase in the loading of a pollutant, the unused loading capacity remaining after the applicant's increased loading must be greater than or equal to 75 percent of the unused loading capacity established at the time of the permit issuance for the initial increase in the loading of a pollutant of concern.

For waters designated as OSRW (*i.e.*, for Tier 2.9 protected waters), the Draft Rule divides the de minimis exemption into three categories:

1. 327 IAC 2-1.3-4(b)(1)(B)(i)(AA) applies to non-BCC pollutants Applicant de minimis is 1 percent of the existing unused loading capacity of the waterbody, mixing zone, or other delineated area.

2. 327 IAC 2-1.3-4(b)(1)(B)(i)(BB) applies to non-BCC toxic substances, with no water quality criterion, in waters outside the Great Lakes Basin. Applicant de minimis is 2 percent of the existing unused loading capacity.
3. 327 IAC 2-1.3-4(b)(1)(B)(i)(CC) applies to non-BCC toxic substances, with no water quality criterion, in waters within the Great Lakes Basin. Applicant de minimis is 2 percent of the existing unused loading capacity, same as in (BB).

For every request after the time of the permit issuance for the initial increase in the loading of a pollutant, the unused loading capacity remaining after the applicant's increased loading must be greater than or equal to 97.5 percent of the unused loading capacity established at the time of the permit issuance for the initial increase in the loading of a pollutant of concern.

COMMENTS

Generally, IDEM should consider a more streamlined alternative to the extremely complex and lengthy de minimis approach in the Draft Rule. For some circumstances and waters, a de minimis threshold set at the criterion level of the pollutant discharged at the end of the pipe, or at a predetermined dilution ratio, or at background concentration, may be easier to implement and just as protective of water quality as the loading capacity approach used in the Draft Rule. IDEM should develop the record showing whether and under what circumstances these simpler approaches to de minimis are at least as stringent as the loading capacity approach, particularly for Lake Michigan where the loading capacity approach is very problematic (see comments below).

Although U.S. EPA has approved de minimis exceptions in the past, recent events and court decisions have made clear that U.S. EPA's authority to approve de minimis exceptions is now "quite limited." See *Kentucky Waterways*, 540 F.3d at 484 n. 12. IDEM has not developed a record that would allow U.S. EPA to approve the de minimis approach proposed here. Furthermore, the regulatory complexity in these rules should be avoided as a matter of policy because it limits effective public participation, increases compliance costs for the regulated community, and requires more government resources to administer. As drafted, the Rule creates incentives for dischargers to spend time and money documenting reasons why their activities

should be exempt from antidegradation review instead of simply focusing efforts on performing Tier 2 reviews.

We provide specific comments below on the de minimis provisions presented in the Draft Rule.

Comments A: The Draft Rule's approach to applying de minimis to Lake Michigan is likely impracticable in application and is likely to allow significant increases in pollutant loadings without an antidegradation demonstration.

As discussed above for the definition of total loading capacity (TLC), the determination of whether a lowering of water quality is de minimis in Draft Section 4(b)(1) relies on the calculation of TLC. The proposed calculation of TLC for Lake Michigan uses the volume of an alternate mixing zone, which produces a result in units of mass rather than in units of mass per time. In either case, IDEM has presented no justification that the approach used in the Draft Rule to calculate TLC will provide a meaningful determination of a de minimis threshold for new or increased discharges into Lake Michigan, and protect Lake Michigan from significant increases in pollution loadings.

The de minimis approach used in the Draft Rule would be most applicable for streams with design flows much greater than effluent flows. In that case, the total loading capacity can be estimated at the time of the first antidegradation application, and the use of that capacity can be tracked as it declines due to subsequent discharges. However, there is no evidence that the approach is appropriate for large bodies of water such as Lake Michigan. As IDEM appears to recognize, the loading capacity applied to discharges into the Indiana waters of Lake Michigan cannot be based on the capacity of the entire Lake. Pollutants discharged into Lake Michigan are not uniformly dispersed into the Lake. Instead, pollutants are often transported up or down the shoreline depending on the direction of currents.

So, if the loading capacity concept is to be used for Lake Michigan, some volume or flow of water smaller than the entire Indiana portion of the Lake must be considered. Using IDEM's approach in the Draft Rule, however, each new or increased discharge into Lake Michigan will

based on the volume within different and separate alternate mixing zones, where each new alternate mixing zone starts with a clean slate. In these circumstances, how will IDEM calculate the benchmark unused loading capacity required in Draft Section 4(b)(1)? What if the first permitted alternate mixing zone (for the initial increase in loading of the pollutant), on which the benchmark unused loading capacity is to be based under Draft Section 4(b)(1), is much larger than subsequent mixing zones? In effect, as the Draft Rule is currently written, the total loading capacity and benchmark unused loading capacity will become a moving target as each new alternate mixing zone is granted.

If the concept of loading capacity is to be used for Lake Michigan, IDEM must provide evidence and justification that the proposed approach will provide a meaningful determination of a cumulative de minimis threshold and will protect Lake Michigan from significant increases in pollutant loadings unsupported by an antidegradation demonstration. IDEM should begin by explaining how the concepts of total loading capacity, benchmark unused loading capacity, and cumulative used loading capacity will be made consistent with the fact that each proposed new or increased loading into Lake Michigan will be discharged into a "new" alternate mixing zone that has not received any prior discharges.

If a de minimis approach is to be used for Lake Michigan, IDEM must provide evidence and justification that this approach will provide a meaningful determination of a cumulative de minimis threshold and will protect Lake Michigan from significant increases in pollution loadings. See *Kentucky Waterways*, 540 F.3d 466 (6th Cir. 2008). The existing record does not support IDEM's proposed method for determining a "total loading capacity" for discharges into Lake Michigan based on an alternate mixing zone.

Questions

- How will the proposed approach to determining loading capacity be applied to new and increased discharges into Lake Michigan? What are the assumptions and limitations of this approach?
- How will the cumulative cap (i.e., the "benchmark unused loading capacity") be determined for Lake Michigan if each de minimis exemption is determined based on a different and spatially separate alternate mixing zone volume?

Suggested Rule Language

The de minimis for Lake Michigan and other outstanding state resource waters should be set equal to the background concentration or "reference water quality." See proposed de minimis language and rationale in Attachments A and B.

Comments B: The Draft Rule's cumulative cap (benchmark unused loading capacity) of 75% for non-OSRWs is unjustified and likely violates the Clean Water Act.

The IDEM Draft Rule fails to comply with EPA policy and recent court decisions regarding "de minimis" discharges. At most, IDEM only has the implied authority to create de minimis exemptions "when the burdens of regulation yield a gain of trivial or no value." *Kentucky Waterways*, 540 F.3d.at 491. As explained by the Court, this "naturally will turn on the assessment of particular circumstances, and the agency will bear the burden of making the required showing." *Id.*

In the current version, dischargers can avoid antidegradation review by demonstrating "insignificant" impact on loading capacity. As in the Kentucky case, IDEM here has failed to carry its burden of justifying why the scenarios described in the Draft Rule are "truly de minimis" based on an "assessment of particular circumstances" in the record. In addition to its complexity, the de minimis provision apparently allows up to 25% of the initial assimilative capacity of a waterbody to be consumed without any antidegradation review in certain situations (see Section 4(b)(1)(A)(i)(DD)). IDEM has failed to include any analysis or authority in the record suggesting that a 25% reduction in water quality could possibly be considered insignificant. EPA recently disapproved proposed Utah antidegradation rules because they allowed a cumulative de minimis of more than 10%.

In October 2008, several of the undersigned environmental groups presented IDEM with suggested language for implementing a lawful de minimis approach based on consumption of loading capacity. We've attached the proposal to these comments as Attachment B.

In addition, if IDEM intends the de minimis exemption to be available where no new or modified permit limits are involved, the benchmark unused loading capacity should be defined as a percentage of the unused loading capacity established at the time of the initial increase in the loading of a pollutant of concern to account for changes in loading that do not require a new or modified permit limit.

Questions

- Where in the record has IDEM demonstrated that the regulatory burdens of performing Tier 2 reviews for discharges allowing up to a 25% cumulative lowering of water quality would yield benefits of "trivial or no value"?
- How will IDEM track the consumption of the benchmark unused loading capacity, which is determined at the time of the initial increase in loading for the pollutant, given that the total loading capacity may increase over time with subsequent dischargers to a waterway due to additions and dominance of effluent flows (for most NPDES discharge situations into rivers and streams in Indiana, the size of the ULC will be more a function of the effluent flow size, not the stream flow)?

Suggested Rule Language

Change the cumulative cap (i.e., benchmark unused loading capacity) on de minimis discharges from 75% to 90% of the "reference water quality" (i.e. the unused loading capacity established at the time of the initial increase in the loading of a pollutant of concern), and include an adequate justification in the record. See proposed de minimis language and rationale in Attachments A and B.

Comments C: The Draft Rule's applicant de minimis of 20% of existing unused loading capacity for toxics is unjustified and likely violates the Clean Water Act.

In the Draft Rule, individual discharges of non-BCC toxic substances with no water quality criteria into non-OSRW and non-ORNW waters within and outside the Great Lakes Basin are deemed de minimis if they use less than 20% of the existing unused loading capacity of the waterbody, mixing zone, or other delineated area. As discussed above, there is no basis in the law or in the record for allowing a 20% loss of assimilative (loading) capacity to be considered insignificant or de minimis.

Furthermore, the uncertainty associated with a Tier II criterion value could mean that the value is either over or under protective. EPA Region V has already commented that addressing this uncertainty by adjusting the significance threshold is not justified.

Also, it is our understanding that IDEM intends that there be no de minimis as to pollutants for which there is no Tier I or Tier II criterion. This must be explained more clearly in the rule or in the documents submitted to EPA and in any documents created that implement the rule. See *Kentucky Waterways*, 540 F.3d at 490 (EPA not entitled to rely on a state's "unenforceable commitments" concerning methods for implementing a proposed rule).

Questions

- Where in the record does IDEM support its conclusion that a 20% lowering of water quality can be considered insignificant?
- What are the names of the non-BCC toxic substances to which the 20% de minimis applies?
- Why do these substances warrant a lowering of the de minimis threshold from 10% to 20%?
- How exactly will IDEM handle pollutants with no Tier I or II criterion?

Suggested Rule Language

Overhaul the de minimis approach entirely or, at a minimum, reduce the per applicant de minimis of 20% unused loading capacity to 10%, and include an adequate justification in the record. See proposed de minimis language and rationale at Attachments A and B.

Comments D: Tributaries of OSRWs are improperly excluded from the de minimis provision for OSRWs.

The term "tributary of an OSRW" is defined in Draft Rule Section 2(63), but it appears that this term is not used within the substantive parts of the Draft Rule. It is not clear whether IDEM intends to apply the OSRW de minimis exemption in Section 4(b)(1)(B) to any new or increased discharges into tributaries of OSRWs. IDEM has taken the position that tributaries to OSRWs are designated as HQWs.[11] The Draft Rule appears to apply the OSRW de minimis

[11] IDEM Second Notice of Comment Period, LSA Document #08-764, page 5.

exemption in Section 4(b)(1)(B) only to discharges directly into OSRWs but not to discharges into OSRW tributaries, even where those discharges into the tributaries may result in a lowering of water quality in the downstream OSRW. Applying a de minimis exemption to OSRWs but not to their tributaries will create inconsistent and unintended results.

For example, assume that a new discharge into a tributary a short distance upstream from the OSRW Lake Michigan results in a lowering of water quality in both the tributary and the Lake.[12] If the HQW Section 4(b)(1)(A) is applied to the tributary, the new loading would be allowed to take 10% of the tributary's unused loading capacity without being deemed "significant.". But the new loading of the pollutant also will flow the short distance downstream into the Lake and use up loading capacity in the Lake. How much of the Lake's loading capacity will be used up? It depends on several factors. But the amount of loading deemed de minimis in the tributary (10% of unused capacity in the tributary) can potentially compromise the unused loading capacity limit of 1% for the Lake. That is, the new loading causes a significant lowering of water quality in the downstream OSRW even though the loading is deemed nonsignificant (de minimis) at the point of discharge into the tributary. Such a situation obviously must be avoided; this situation is best avoided by applying OSRW Section 4(b)(1)(B) to the tributaries of OSRWs if the loading may result in a lowering of water quality in the downstream OSRW. A less-preferred alternative method (which requires more analysis and effort by IDEM) is to measure the amount of unused loading capacity in the OSRW taken up by the proposed discharge into the OSRW tributary.

Questions

- Why did IDEM omit tributaries to OSRWs from the de minimis provision in 4(b)(1)(B)? Is it IDEM's intent that discharges to tributaries to OSRWs should not benefit from the de minimis exemption but rather must be subject to an antidegradation demonstration?
- Does IDEM intend the de minimis exemption in 4(b)(1)(B) to apply to tributaries of OSRWs when discharges into tributaries of OSRWs may result in a lowering of water quality in the downstream OSRW? If not, why not?

[12] IDEM contemplates that a new or increased discharge to a tributary of an OSRW has the potential to cause a significant lowering of water quality in the OSRW. See IDEM Second Notice of Comment Period, LSA Document #08-764, page 5.

- If IDEM applies 4(b)(1)(A) to tributaries of OSRWs (as if they are non-OSRWs), how will IDEM ensure that a discharge using 10% of the unused loading capacity in the tributary will not use more than 1% of the unused capacity in the downstream OSRW?

Suggested Rule Language

(B) For a HQW that is an OSRW, or a tributary of an OSRW if the loading may result in a lowering of water quality in the downstream OSRW, the proposed lowering of water quality is de minimis and a Tier 2 review is not required if . . .

Comments E: Clarification is needed on applicability of de minimis.

Language sprinkled throughout Draft Section 4(b)(1) appears to apply the de minimis exemption to <u>all</u> new or increased loadings, whether or not associated with a new, renewed, or modified permit limit. However, Sections 4(b)(1)(A)(i)(DD) and 4(b)(1)(B)(i)(DD) require that the benchmark unused loading capacity (ULC) is based on the ULC "established at the time of the permit issuance for the initial increase in the loading of a pollutant of concern." This provision suggests that the benchmark ULC would not apply where the initial increase in the loading of the pollutant did not bring a new or modified permit limit. There may be an increased loading of a pollutant that does <u>not</u> require a new or modified permit limit but which under Section 1(b) still triggers the rule. By the plain language of Draft Sections 4(b)(1)(A)(i)(DD) and 4(b)(1)(B)(i)(DD), the benchmark ULC could not be calculated in this situation, and the de minimis exemption would not be available.

IDEM needs to choose and clarify for the public whether the de minimis exemption will (a) be available only for changes in loading associated with a new or modified effluent limit in a permit, or (b) be available for all new or increased loadings of pollutants of concern. If the former, a new or increased loading of phosphorus that does not trigger an effluent limit would not be able to take advantage of the de minimis exemption. This would be consistent with Indiana Code 13-18-3-2(l)(1), which applies to OSRWs such as Lake Michigan, and which indicates that for these waters at least the de minimis exemption is not available for changes in loadings not associated with a new or increased permit limit.[13]

[13] Indiana Code §§ 13-18-3-2(k) and (l) state as follows, with the critical language in bold:

Questions

- Is the de minimis exemption available (a) only for changes in loading associated with a new or modified effluent limit in a permit, or (b) for all new or increased loadings of pollutants of concern?
- If the latter, how is that consistent with Indiana Code 13-18-3-2(l)(1)?
- How does IDEM intend to apply the de minimis exemption, if at all, to pollutants that currently lack numeric water quality criteria, such as phosphorus and nitrogen?

Suggested Rule Language

See proposed de minimis language and rationale at Attachments A and B.

C. 327 IAC 2-1.3-4(b)(2)(D): Exemption for POTWs

INTRODUCTION

Draft Section 4(b)(2)(D) states in relevant part:

(k) For a water body designated as an outstanding state resource water, the board shall provide by rule procedures that will:

(1) prevent degradation; and

(2) allow for increases and additions in pollutant loadings from an existing or new discharge if:

(A) there will be an overall improvement in water quality for the outstanding state resource water as described in this section; and

(B) the applicable requirements of 327 IAC 2-1-2(1) and 327 IAC 2-1-2(2) and 327 IAC 2-1.5-4(a) and 327 IAC 2-1.5-4(b) are met.

(l) The procedures provided by rule under subsection (k) must include the following:

(1) **A definition of significant lowering of water quality that includes a de minimis quantity of additional pollutant load**:

(A) **for which a new or increased permit limit is required**; and

(B) below which antidegradation implementation procedures do not apply.

(2) Provisions allowing the permittee to choose application of one (1) of the following for each activity undertaken by the permittee that will result in a significant lowering of water quality in the outstanding state resource water:

(A) Implementation of a water quality project in the watershed of the outstanding state resource water that will result in an overall improvement of the water quality of the outstanding state resource water.

(B) Payment of a fee, not to exceed five hundred thousand dollars ($500,000), based on the type and quantity of increased pollutant loadings, to the department for deposit in the outstanding state resource water improvement fund established under section 14 of this chapter for use as permitted under that section.

(3) Criteria for the submission and timely approval of projects described in subdivision (2)(A).

(4) A process for public input in the approval process.

(5) Use of water quality data that is less than seven (7) years old and specific to the outstanding state resource water.

(6) Criteria for using the watershed improvement fees to fund projects in the watershed that result in improvement in water quality in the outstanding state resource water.

> 4(b)(2) The following exemptions from the antidegradation demonstration requirements included in section 6 of this rule do not require the submission of information beyond what is required to comply with the discharger's existing applicable permit:
> * * *
>
> (D) A new or increased loading of a pollutant of concern at an outfall discharging to a water of the state due to increasing the sewered area, connection of new sewers and users, or acceptance of trucked-in wastes, such as septage and holding tank wastes, by a POTW, provided that there is no:
>
> (i) increase in the existing NPDES permit limits;
> (ii) increase beyond the treatment capacity of the facility; or
> (iii) significant change expected in the characteristics of the wastewater discharged.

COMMENTS

This provision has two problems.

First, it would allow exemptions for new or increased loadings of pollutants simply because the pollutants are not limited in the existing NPDES permit. According to IDEM's stated position in its responses to the first comments, the lack of a current effluent limit should not exempt a pollutant loading from antidegradation review. An example of the problem is provided by the circumstances of the City of Jeffersonville Wastewater Treatment Plant, which sought a permit to relocate an outfall to another stream, thereby increasing the pollutant loading in the new receiving stream. A comment letter on NPDES permit IN0023302 requested a demonstration that the degradation of the receiving water was "justifiable on the basis of necessary economic or social factors" (the current antidegradation language that applies outside of Indiana's Great Lakes Basin), and asked whether phosphorus treatment was considered as an alternative to reduce phosphorus loading to the receiving stream. IDEM's responsiveness summary included with the issued final permit stated:

> Phosphorus limitations are not included in the permit. Therefore no antidegradation demonstration for phosphorus is required.

Now, the fact that there is no phosphorus limit in the permit is certainly not an excuse for failing to determine whether a phosphorus limit <u>should</u> be in the permit to prevent non-de minimis and unnecessary degradation of water quality from the modified phosphorus discharges. This lack of a current limit is not one of the justifications on which an "exemption" can be validly based. However, Draft Rule Section 4(b)(2)(D) would exempt the City of Jeffersonville's new

phosphorus loading from antidegradation review, because the situation satisfies the Draft Section's subdivisions (i), (ii), and (iii), even though a new outfall and new stream were involved (i.e., (i) there was no increase in the existing NPDES permit limits (because there were no permit limits for phosphorus), (ii) there was no increase beyond the treatment capacity of the facility, and (iii) there was no significant change expected in the characteristics of the wastewater discharged).

Based on the list of examples in Draft Rule Section 4(b)(2)(A), that subdivision presumably would not exempt new or increased loadings of pollutants just because they are not limited in the existing NPDES permit. If it would, then the above criticism would apply to 4(b)(2)(A).

Second, exemption 4(b)(2)(D) lacks a key prohibition on loading of BCCs from nondomestic wastes. In fact, the current interim anitidegradation rules at 327 IAC 5-2-11.3(b)(1)(C)(iii)(FF) and 327 IAC 5-2-11.7(b)(4) contains the necessary fourth condition:

(i) increase in the existing NPDES permit limits;

(ii) increase beyond the treatment capacity of the facility;

(iii) significant change expected in the characteristics of the wastewater discharged; or

(iv) increased loading of BCCs from nondomestic wastes.

IDEM obviously considered this fourth requirement to be important when the agency promulgated the interim antidegradation rules. Exemption 4(b)(2)(D) applies to both BCCs and non-BCCs, so it is important to prohibit increased loading of BCCs from nondomestic wastes. Moreover, during the rulemaking subgroup discussions, the municipality representatives agreed that this fourth requirement was appropriate.

Moreover, this exemption should, in combination with other exemptions in Section 4(b), result in no more than a de minimis lowering of water quality. In order to approve Indiana's rules, EPA would need to provide detailed technical analysis of the combined effect of all of these exemptions and determine whether all of the "Tier-2-review exemptions together permit significant degradation." *Kentucky Waterways*, 540 F.3d at 492.

Questions

- Do the Section 4(b)(2) exemptions apply to situations where there is no existing permit or where a new, renewed, or modified permit is required for the new or increased loading?
- Is IDEM exempting from antidegradation review a new or increased loading of a pollutant that lacks a current effluent limit, even when that change in loading could be reduced through treatment technology? If so, why?
- Why did IDEM omit the requirement of no "increased loading of BCCs from nondomestic wastes" from Exemption 4(b)(2)(D) even though that requirement is set forth in the interim rules?
- Is it IDEM's position that Exemption 4(b)(2)(D), cumulatively with the other exemptions in Section 4(b), would lower water quality within a waterbody by only a de minimis amount?

Suggested Rule Language

4(b)(2) The following exemptions from the antidegradation demonstration requirements included in section 6 of this rule do not require the submission of information beyond what is required to comply with the discharger's existing applicable permit:

* * *

(D) A new or increased loading of a pollutant of concern limited in an existing NPDES permit, at an outfall discharging to a water of the state due to increasing the sewered area, connection of new sewers and users, or acceptance of trucked-in wastes, such as septage and holding tank wastes, by a POTW, provided that there is no:
(i) change in the outfall or in the receiving water;
(ii) increase in the existing NPDES permit limits;
(iii) increase beyond the treatment capacity of the facility;
(iv) significant change expected in the characteristics of the wastewater discharged; or
(v) increased loading of BCCs from nondomestic wastes.

Alternatively, the exemption could just be deleted as unnecessary given a proper definition of degradation.

D. 327 IAC 2-1.3-4(b)(3)(C): The short-term exemption for non-ONRW waters

INTRODUCTION

Draft Section 4(b)(3)(C) states in relevant part:

4(b)(3) The following exemptions from the antidegradation demonstration requirements included in section 6 of this rule require the submission of information that sufficiently demonstrates that the proposed discharge satisfies the exemption description along with the application for an NPDES permit:

* * *

(C) A new or increased loading of a pollutant of concern for short-term, temporary, new, or increased discharges if the following conditions are met:

(i) All reasonable methods for minimizing or preventing the new or increased loading have been taken.

(ii) The discharge will last less than twelve (12) months or three hundred sixty-five (365) days.

(iii) The discharge will result only in a short-term, temporary (not to exceed twelve (12) months) lowering of water quality.

(iv) The discharge complies with the antidegradation standards outlined in section 3 of this rule.

COMMENTS

First of all, it is important to recognize that this exemption would apply only where a new, renewed, or modified NPDES permit is sought for the change in loading – it would not apply to new or increased loadings not associated with a new, renewed, or modified permit (see Section 3, "The following exemptions . . . require the submission of information . . . along with the application for an NPDES permit").

The comments for Section 4(a) above apply to this exemption also, and those comments are incorporated here by reference. To summarize, exemptions from antidegradation requirements for short term and temporary lowering of water quality are consistent with the applicable federal requirements if the exemption includes (a) a limitation on the magnitude of the impact, and (b) a procedure for responding to multiple requests for exemptions and the cumulative effects of multiple short-term impacts. Draft Section 4(b)(3)(C) includes neither. IDEM's "short-term and temporary" exemption addresses the time of the activity and effect only, and not the magnitude of effect or any other factor listed in EPA guidance. The draft provision as written is not likely to sufficiently protect water quality from even a time-limited loading of pollutants if the magnitude of the impact – both individually and cumulatively -- is not considered.

Moreover, this exemption should, in combination with other exemptions in Section 4(b), result in no more than a de minimis lowering of water quality. In order to approve Indiana's rules, EPA would need to provide detailed technical analysis of the combined effect of all of these exemptions and determine whether all of the "Tier-2-review exemptions together permit significant degradation." *Kentucky Waterways*, 540 F.3d at 492.

Questions

- Why does 327 IAC 2-1.3-4(b)(3)(C) substantially deviate from EPA guidance by omitting a limitation on the magnitude of the allowable effect as well as other applicable factors recommended by EPA?
- How will IDEM handle more than one request for a short-term and temporary discharge to a waterbody?
- Is it IDEM's position that Exemption 4(b)(3)(C), cumulatively with the other exemptions in Section 4(b), would lower water quality within a waterbody by only a de minimis amount?

Suggested Rule Language

4(b)(3) The following exemptions from the antidegradation demonstration requirements included in section 6 of this rule require the submission of information that sufficiently demonstrates that the proposed discharge satisfies the exemption description along with the application for an NPDES permit:

* * *

(C) A new or increased loading of a pollutant of concern for new or increased short-term, temporary, and limited discharges is allowed if all of the following conditions are met:

(i) All reasonable methods for minimizing or preventing the new or increased loading have been taken.

(ii) The discharge will last less than twelve (12) months or three hundred sixty-five (365) days.

(iii) A proposed new or existing discharger applies for and receives authorization from the commissioner.

(iv) The discharge will result only in a short-term, temporary (not to exceed twelve (12) months) lowering of water quality.

(v) The discharge, by itself and along with additional discharges to the waterbody exempted under this subsection, will not result in more than a 2.5% change in the ambient concentrations of the pollutants discharged.

(vi) The lowering of water quality will not put at risk achieving applicable water quality standards during the proposed activity or have a potential for any residual long-term influences on existing uses.

(vii) The discharge complies with the antidegradation standard outlined in section 3 of this rule.

E. 327 IAC 2-1.3-4(b)(3)(E): Exemption for non-contact cooling water

INTRODUCTION

Draft Section 4(b)(3)(E) states in relevant part:

4(b)(3) The following exemptions from the antidegradation demonstration requirements included in section 6 of this rule require the submission of information that sufficiently demonstrates that

the proposed discharge satisfies the exemption description along with the application for an NPDES permit:

* * *

(E) When all reasonable methods for minimizing or preventing the new or increased loading have been taken, a new or increased discharge of noncontact cooling water that will not do the following:

(i) Increase the temperature of the receiving water or waters outside of the designated mixing zone, where applicable.

(ii) Increase the loading of BCCs.

(iii) Require numeric water quality-based effluent limitations (WQBELs) for toxic substances or WET as determined under 327 IAC 5-2-11.5.

COMMENTS

This exemption should, in combination with other exemptions in Section 4(b), result in no more than a de minimis lowering of water quality. In order to approve Indiana's rules, EPA would need to provide detailed technical analysis of the combined effect of all of these exemptions and determine whether all of the "Tier-2-review exemptions together permit significant degradation." *Kentucky Waterways*, 540 F.3d at 492.

Since "or" is not used in the list E(i) through E(iii), the sentence in 4(b)(3)(E) should be changed to clarify the provision:

Questions

- Is it IDEM's position that Exemption 4(b)(3)(E), cumulatively with the other exemptions in Section 4(b), would lower water quality within a waterbody by only a de minimis amount?

Suggested Rule Language

(E) . . . A new or increased discharge of noncontact cooling water that will not do <u>any of</u> the following: . . .

F. 327 IAC 2-1.3-4(b)(4)(A)-(D): Exemptions for pollutant offsets and trading

GENERAL COMMENTS

Section 4(b)(4) sets forth four exemptions based on pollutant offsets and trading. The situations presumably covered under 4(b)(4) are not appropriate as exemptions under the Clean Water Act and EPA guidance. Even if they were appropriate as exemptions, they should not apply to BCCs or to Lake Michigan.

An "exemption" from the Tier 2 antidegradation demonstration, to be consistent with the perspectives of EPA and the courts, must be associated with one of two types of situations: (1) changes in loading result in a de minimis decrease in water quality in the receiving waterbody over the range of likely loadings; and (2) an outside procedure that sufficiently substitutes for an antidegradation demonstration is applied. The four "exemptions" in Section 4(b)(4) of the Draft Rule are not appropriate as exemptions from antidegradation review because IDEM has not made any showing that they meet either of the above criteria.

In order to approve Indiana's rules, EPA would need to provide detailed technical analysis of the combined effect of all of these exemptions and determine whether all of the "Tier-2-review exemptions together permit significant degradation." *Kentucky Waterways Alliance*, 540 F.3d at 492. EPA Region 7, for example, has stated its position on exemptions as follows:

> [A]ny exemptions from the antidegradation review process must be based upon a well-founded determination that the pollution discharges permitted under such exemptions will have a truly *de minimis* impact upon the water quality of such impacted waters.[14]

IDEM has presented no evidence that any of the four "exemptions," as a class of loadings, will have a truly de minimis impact upon the water quality of the impacted waters. In order for a class of new or increased loadings to be exempted from antidegradation review, IDEM must show that all situations in that class likely will have a de minimis impact on water quality. As we argue below for each of the four Section 4(b)(4) exemptions individually, that showing has not, and in most cases cannot, be made.

Furthermore, the Exemption Justification in Draft Section 5 as written does not sufficiently substitute for the antidegradation demonstration requirements in Sections 6 and 7 of the Draft Rule for significant loadings. Compared to the antidegradation demonstration requirements, the Exemption Justification uses a much diluted "necessary" test to analyze alternatives to the proposed new or increased loading. (Compare Section 5(c)(3) of the Draft Rule with the much more extensive "necessary" test set forth in Section 6 of the Draft Rule.) Critically, the

[14] Region 7 EPA letter dated March 25, 2009 to the general counsel of the Iowa Department of Natural Resources, in response to a legislative bill setting forth exemptions to antidegradation review.

Exemption Justification does not require any information on, or analysis of, the social or economic importance of the actions to be exempted. Instead, the Exemption Justification requires only that the applicant show that the proposed discharge meets the description of the exemption as written in Section 4.

In IDEM's responses to the first public comments, the agency appears to take three positions in an attempt to justify the Section 4(b)(4) exemptions. We briefly address each of those positions now.

First, IDEM takes the position that "[i]n situations where there is a clear social or economic benefit to the environment or the affected community, the burden of making that demonstration should be very low"[15] and "[a]ctivities listed as exemptions in the draft rule are considered to be activities that allow certain important necessary social activities to occur while protect[ing] water quality is achieved." [16] This position is the basis for IDEM's application of the Section 5 Exemption Justification, instead of the Section 6 antidegradation demonstration, to at least the 4(b)(4)(C) and 4(b)(4)(D) "exemptions." However, to properly and legally reduce the applicant's burden of demonstrating that the exempted activities are "necessary to accommodate important social or economic development," IDEM would need to do one of the following:

(a) make a formal and public showing in the record that all of the situations covered by the exemptions are necessary to accommodate important social or economic development; or

(b) make a formal and public showing in the record that all of the situations covered by the exemptions meet a subset of the factors in the Section 6 demonstration, while in addition include the remaining Section 6 factors in the Section 5 Exemption Justification.

Unfortunately, IDEM has done neither. What IDEM has done is to select several generalized situations, and without any formal (or public) analysis or showing that these situations uniformly meet one or more of the factors in the Section 6 antidegradation demonstration, has deemed them exempt from the Section 6 demonstration. To make matters worse, the 4(b)(4) "exemptions" are written so broadly that IDEM will not be able to generalize that all discharges falling under

[15] IDEM Second Notice of Comment Period, LSA Document #08-764, page 5.
[16] *Id.*, page 17.

4(b)(4) will likely be necessary to accommodate important social or economic development. Without the proper showing by IDEM, EPA has no justification for approving the "exemptions" from antidegradation review.

Second, in its responses to the first public comments criticizing the Section 4(b)(4) exemptions, IDEM takes the position that "IDEM does not support a pollutant trading proposal that results in a significant lowering of water quality in the receiving water."[17] In fact, the activities IDEM has included in Section 4(b)(4) are most definitely pollutant trading proposals, and exemptions 4(b)(A), (C), and (D) in particular are not limited to be less than de minimis. Let us be clear. IDEM's response says nothing more than "IDEM does not support an exemption that results in a non-exempted lowering of water quality in the receiving water" – IDEM's statement is a tautology.[18] IDEM defines as "nonsignificant" any lowering of water quality associated with any activity that it decides to put into Section 4, regardless of how much remaining loading capacity is consumed. According to Draft Section 12(55), the discharge can be much greater than de minimis and still be nonsignificant if some other exemption applies.[19] Therefore, by definition, no activity that IDEM puts into Section 4 can possibly produce a "significant" lowering of water quality, including the 4(b)(4) exempted activities. The problem is that the word "significant" as used in the Draft Rule has no meaning independent of what IDEM decides is included in Section 4. IDEM has made no public analysis or showing that these activities in Section 4 actually are likely to produce a de minimis lowering of water quality or are necessary to accommodate important social or economic development. The activities in Section 4(b)(4) in particular are thus untethered to any independent evidence of significance. To gain EPA approval, these "exemptions" must be tethered to detailed technical analyses in the record

[17] IDEM Second Notice of Comment Period, LSA Document #08-764, page 17.

[18] The following definition of "tautology" is from Wikipedia: "A rhetorical tautology can also be defined as a series of statements that comprise an argument, whereby the statements are constructed in such a way that the truth of the propositions are guaranteed or that the truth of the propositions cannot be disputed by defining a term in terms of another self referentially. Consequently the statement conveys no useful information regardless of its length or complexity making it unfalsifiable. It is a way of formulating a description such that it masquerades as an explanation when the real reason for the phenomena cannot be independently derived."

[19] Draft Section 2(55) states: "'Significant lowering of water quality' means:

> (A) there is a new or increased loading of a pollutant of concern to a surface water of the state that results in an increase in the ambient concentration of the pollutant of concern and the increased loading is greater than a de minimis lowering of water quality; and
>
> (B) none of the provisions of section 4 of this rule applies."

A lowering of water quality is nonsignificant if either (A) or (B) is not true.

demonstrating that the combined effect of all of these exemptions together will result in a de minimis lowering of water quality or are necessary to accommodate important social or economic development. *Kentucky Waterways*, 540 F.3d at 492. IDEM has not provided this analysis.

Third, in response to a public comment on the 4(b)(4) exemptions, including the 4(b)(4)(C) tradeoff of water and air pollution, IDEM stated that "[b]oth of the discharge situations identified in the comment require the discharger to provide an exemption justification to IDEM that is sufficient to show that the new or increased discharge will result in an overall improvement to the environment." [20] The antidegradation policy, however, is not concerned with general "environmental improvement." Rather, it is concerned with degradation of water quality. Thus, a showing that a new or increased discharge will result in an overall improvement to "the environment" does not imply that the discharge will produce a de minimis lowering of water quality or that it is necessary to accommodate important social or economic development, and cannot support EPA approval.

Finally, it is important to recognize that the Draft Rule would allow the 4(b)(4) exemptions only where a new, renewed, or modified NPDES permit is sought for the change in loading, because the Exemption Justification in Section 5(a)(2) is so limited. The exemptions would <u>not</u> apply to a change in loading not associated with a new, renewed, or modified permit.

SPECIFIC COMMENTS ON EACH 4(B)(4) EXEMPTION

4(b)(4)(A): Exemption for watershed offset

4(b)(4) The following exemptions from the antidegradation demonstration requirements included in section 6 of this rule require the submission of an exemption justification according to section 5 of this rule:

(A) A change in loading of a pollutant of concern:

(i) where there is a voluntary, simultaneous, enforceable decrease in the actual loading of the pollutant of concern from sources contributing to the same ten (10) digit watershed; and

(ii) with the result that there is a net decrease in the loading of the pollutant of concern to the same ten (10) digit watershed.

[20] IDEM Second Notice of Comment Period, LSA Document #08-764, page 16.

COMMENTS

Exemption 4(b)(4)(A) is not appropriate as an exemption from antidegradation review because although the exemption requires a de minimis loading of the pollutant over a HUC-10 watershed, it neither requires nor can ensure with any degree of certainty a de minimis lowering of water quality in the receiving waterbody. This exemption could be particularly detrimental to localized water quality in Lake Michigan, and if not deleted from the rule, it should be substantially modified and should not apply to Lake Michigan or BCCs.

Exemption 4(b)(4)(A) allows, without antidegradation review, a significant increase in loading of pollutant into a lake or stream segment as long as there is a corresponding decrease in the net loading of the pollutant somewhere within the entire HUC-10 watershed. This is presumably accomplished by reducing the loading of the same pollutant in a stream segment or lake segment different from the receiving segment. For this scenario to likely produce a truly de minimis impact upon the water quality of the impacted water, one must assume that biological impacts and risks resulting from a significant increase in loading into a particular segment will be entirely offset by a decrease in loading in other segments within the same HUC-10 watershed. And because IDEM is proposing this scenario as an exemption from an antidegradation demonstration, this assumption must hold over the range of discharges and circumstances likely encountered.

IDEM cannot assure that this assumption will hold for all discharges *a priori*, however, due to differences in localized communities of aquatic organisms, differences in absorption and reactions of pollutants across different locations of the same watershed, and incomplete mixing between different segments of the Indiana portion of Lake Michigan. For example, for a pollutant that is locally sequestered by plants and animals soon after discharge, reducing loadings in one segment of the stream may not offset the local impacts of loadings in other segments. Because different locations in the watershed may react differently to the discharge of a pollutant, the locations are not fungible, and IDEM cannot generalize that all discharges falling under Exemption 4(b)(4)(A) will likely be non-significant in impact.

For Lake Michigan in particular, this exemption would allow a significant reduction in water quality in one area of the Indiana portion of the Lake in exchange for increased quality in another area of the Indiana portion of the Lake (or possibly even in a tributary of the Lake), even if those two areas do not intermix on any reasonable timescale, without any consideration of the potentially important social or economic dimensions of such a tradeoff between locations. This exemption, if not deleted from the rule, should not apply to Lake Michigan.

Moreover, attempting to offset a new or increased loading of a BCC with a decrease in the loading of the BCC somewhere else in the watershed (or in some other area of Lake Michigan) is highly risky due to the likelihood of creating hotspots of BCC pollution.[21] This exemption, if not deleted from the rule, should not apply to BCCs.

The language in Draft Section 5(c) of the Exemption Justification, which provides the substantive analysis that IDEM plans to apply to the Section 4(b)(4) exemptions, highlights the inappropriateness of handling an intra-watershed trade as an exemption. The Exemption Justification requires that the applicant show only that the proposed trade will "minimize the proposed lowering of water quality," but does not require that the proposed trade will actually <u>increase</u> the existing water quality in the watershed, which is the requirement and promise in 4(b)(4)(A).[22] The Exemption Justification should require a showing that the tradeoffs across locations will improve the water quality in the receiving waterbody (especially for OSRWs -- see also Ind. Code § 13-18-3-2(m)(2), requiring offsets to significant loadings into OSRWs with water quality improvements "that will result in an overall improvement of the water quality of *the [OSRW]*" (emphasis added)).

Application of pollution trading at the watershed scale must be done with care. See U.S. EPA, Water Quality Trading Toolkit for Permit Writers, pages 12-13 ("In general, the geographic scope of a trade should be no larger than necessary to encompass the universe of sources that contribute to a specific water quality problem that is to be addressed through trading."); U.S.

[21] See U.S. EPA, Water Quality Trading Assessment Handbook (EPA 841-B-04-001, November 2004), chapter II, page 6.

[22] Moreover, minimization of any quantity can only be done with respect to some constraint, such as cost, but the Draft Rule fails to disclose what those constraints will be. The proposed lowering of water quality is always minimized by not discharging.

EPA Water Quality Trading Assessment Handbook, pages 16-17 ("some potential trades that could result in a general water quality improvement in a broad area may also result in acute or chronic localized impacts"); *Id.*, page 6 ("In addition to ensuring that overall pollutant reduction impacts are equivalent, trades must not create locally high loadings of pollutants or 'hotspots'."). Yet Exemption 4(b)(4)(A) does not include any provision that would prevent the most blatant abuses of the trading concept from occurring.

Furthermore, Exemption 4(b)(4)(A) is a deviation from the policy reflected in IDEM's interim antidegradation rules. The analogous exemptions in the interim rules 327 IAC 5-2-11.3(b)(1)(C)(iii)(DD) and 327 IAC 5-2-11.7(c)(2)(A), unlike Exemption 4(b)(4)(A), do not apply to BCCs.

Questions

- Does IDEM have any evidence or analysis that, in general for the range of likely circumstances covered under this exemption, water quality impacts resulting from a significant increase in loading into a particular stream or lake segment will be entirely offset by a decrease in loading from sources in other stream or lake segments in the same watershed? If so, where can this evidence or analysis be obtained by the public?
- Where in the record has IDEM provided a "well-founded determination" that any changes in water quality under this exemption will be de minimis, especially considering that the Exemption Justification only requires the applicant to show that the proposed trade will "minimize the proposed lowering of water quality," rather than requiring that the applicant show that the proposed trade will actually maintain or improve existing water quality?
- Why has IDEM applied Exemption 4(b)(4)(A) to BCCs, especially given that the analogous exemptions in the current interim rules do not apply to BCCs?
- How will IDEM consider the social and economic dimensions of allowing a significant reduction in water quality in one area of Lake Michigan in exchange for increased quality in another area of the Lake (or possibly even in a tributary of the Lake), even if those two areas do not intermix on any reasonable timescale, particularly given that the exemption justification does not require such consideration?

Suggested Rule Language

4(b)(4) The following exemptions from the antidegradation demonstration requirements included in section 6 of this rule require the submission of an exemption justification according to section 5 of this rule:

(A) A change in loading of a pollutant of concern that is not a BCC to a waterbody that is not an OSRW:

(i) where there is a voluntary, simultaneous, enforceable decrease in the actual loading of the pollutant of concern from sources contributing to the same ten (10) digit watershed; and
(ii) with the result that there is a net decrease in the loading of the pollutant of concern to the same ten (10) digit watershed.; and
(iii) where the applicant demonstrates that the increase in loading, combined with the simultaneous decrease in the loading of the pollutant from the other sources in the watershed, will not cause a decline in the water quality of the receiving waterbody.

4(b)(4)(B): Exemption for cross-pollutant trading

4(b)(4) The following exemptions from the antidegradation demonstration requirements included in section 6 of this rule require the submission of an exemption justification according to section 5 of this rule:

* * *

(B) A new or increased loading of a pollutant of concern if the discharger demonstrates the following:

(i) The new or increased loading is necessary to accomplish a reduction in the loading of another pollutant of concern.

(ii) All reasonable methods for minimizing or preventing the new or increased loading have been taken.

(iii) There will be an improvement in water quality in the receiving water or waters. An improvement in water quality will occur if the impact from the new or increased loading of the pollutant of concern is:

(AA) less bioaccumulative; and

(BB) less toxic than the reduced pollutant or pollutant parameter.

In making these determinations regarding bioaccumulation, the BAF methodology under 327 IAC 2- 1.5-13 will be used.

COMMENTS

Exemption 4(b)(4)(B) also is not appropriate as an exemption. The exemption attempts to ensure that any situation covered by the exemption will result in a nonsignificant impact by requiring that the new or increased loading of pollutant X be necessary to reduce a more bioaccumulative and more toxic pollutant Y. EPA has issued extensive guidance on pollutant trading schemes, and recommends that such schemes be applied with much caution.[23] Although IDEM may have specific applications of this exemption in mind, IDEM errs by attempting to set

[23] EPA accepts the pollutant trading concept as a tool for maintaining or improving water quality, but only for some pollutants and some situations. See U.S. EPA, Water Quality Trading Assessment Handbook (November 2004). EPA does not support trading of bioaccumulative toxics. See U.S. EPA, Water Quality Trading Toolkit for Permit Writers, Office of Wastewater Management Water Permits Division, (August 2007) EPA 833-R-07-004, page 10 ("Not all pollutants are necessarily suitable for trading. . . . EPA's Trading Policy supports trading for TN, TP, and sediment and indicates that other pollutants may be considered for trading on a case-by-case basis. EPA does not support trading of persistent bioaccumulative toxics.").

forth a generalized pollutant trading scheme without any evidence that the scheme will produce nonsignificant impacts across a range of pollutants, discharges, and circumstances.

IDEM's presumption that an improvement in water quality will occur if the "impact from the new or increased loading of the pollutant of concern" is less bioaccumulative and less toxic than the reduced pollutant or pollutant parameter is not warranted. It is entirely unclear how an "impact" of a loading can be more or less bioaccumulative. It is possible that IDEM is attempting to incorporate the magnitude of the changes in loading of each pollutant into this trading scheme. If so, this should be made clear in the rule language. If "impact" refers to the pollutant itself, then clearly a large increase in the load of a less bioaccumulative, less toxic pollutant may not be offset by a very small decrease of a more bioaccumulative, more toxic pollutant. This provision then would need to account for overall mass.

Also, bioaccumulativity and toxicity are not the only factors of concern. The persistence of a pollutant in the water column or sediments is often an important factor in water quality trading yet is not considered in this exemption. So is whether the pollutant has synergistic effects with other pollutants.

Even if IDEM incorporates loading mass and pollutant persistence to Exemption 4(b)(4)(B), the exemption is still inappropriate because no general presumption of the proper pollutant trade can be specified *a priori* in the rule for all waterbodies, pollutants, and situations, as IDEM attempts to do in this exemption. The problems with Exemption 4(b)(4)(B) are especially troublesome because the exemption applies to all OSRWs, all HQWs in the Great Lakes Basin, and all loadings of BCCs.

Exemption 4(b)(4)(B) should never be applied to BCCs or OSRWs. EPA recommends against pollutant trading for BCCs, and in fact the analogous exemptions in the current interim rules do not apply to BCCs (see 327 IAC 5-2-11.3(b)(1)(C)(iii)(JJ) and 327 IAC 5-2-11.7(c)(2)(B)).

Moreover, because of the relative high uncertainty in the outcome of pollutant trading, the application of this scheme in OSRWs is particularly risky. In particular, increasing one

bioaccumulative or toxic pollutant in one segment of Lake Michigan in exchange for a decrease in another bioaccumulative or toxic pollutant in another segment of Lake Michigan is a complex trading scheme and should be analyzed along with the social and economic dimensions of the trade.

In sum, cross-pollutant trading situations are most appropriately handled in a Tier 2 antidegradation demonstration where the social benefit of the trade can be weighed against the social and economic costs. If indeed a cross-pollutant trade results in a less bioaccumulative, less toxic, less persistent, and less synergistic discharge, then it will likely pass a Tier 2 antidegradation review without much trouble. However, a blanket exemption is not appropriate because it fails to account for the range pollutants, discharges, and circumstances that may be presented.

Questions

- Does IDEM have any evidence that, in general for the range of likely circumstances falling under this exemption, water quality impacts resulting from a significant increase in loading of one pollutant will be entirely offset by a decrease in loading from another pollutant simply because the increased pollutant is less bioaccumulative and toxic? If so, please disclose that evidence to the public?
- Where in the record has IDEM provided a "well-founded determination" that any changes in water quality under this exemption will be de minimis?
- Why did IDEM omit loading mass, pollutant persistence, and synergistic effects as factors in subdivision (iii)?
- Why should the exemption apply to BCCs, especially given that the comparable exemptions in the interim rules do not apply to BCCs?
- Why should the exemption apply to OSRWs?

Suggested Rule Language

Not applicable – delete Exemption 4(b)(4)(B).

4(b)(4)(C): Exemption for cross-pollutant and cross-media trading

4(b)(4) The following exemptions from the antidegradation demonstration requirements included in section 6 of this rule require the submission of an exemption justification according to section 5 of this rule:

* * *

(C) A new or increased loading of a pollutant of concern that demonstrates:

(i) the new or increased loading is necessary to accomplish a reduction in the release of one (1) or more air pollutants;
(ii) all reasonable methods for minimizing or preventing the new or increased loading have been taken; and
(iii) there will be an environmental improvement, which will occur when the applicant demonstrates that the reduction in the loading of the air pollutant:
(AA) is necessary to meet a state or federal air quality standard or emission requirement; or
(BB) will substantially reduce human exposure to hazardous air pollutants or other air pollutants that are subject to state or federal air quality standards.

COMMENTS

Exemption 4(b)(4)(C) also is not appropriate as an exemption from antidegradation review. It exhibits all of the shortcomings of Exemptions 4(b)(4)(A) and 4(b)(4)(B): the spatial scale is too large, it applies to BCCs and OSRWs, and it tries to shortcut the analysis necessary for complex pollutant trading schemes. Exemption 4(b)(4)(C) has two additional problems.

First, the exemption sets forth a cross-media pollutant trading scheme. EPA Region 5, in its review of a prior IDEM draft antidegradation rule, rejected cross-media transfers of pollutants as not appropriate for an exemption from an antidegradation demonstration.

Second, Exemption 4(b)(4)(C) entirely abandons EPA's principle that any exemptions from the antidegradation review process must be based upon a well-founded determination that the pollution discharges permitted under such exemptions will have a truly de minimis impact upon the water quality of the impacted waters.[24] Exemption 4(b)(4)(C) requires only that there be an "environmental improvement," meaning that IDEM considers water pollution and air pollution to be fungible and able to be traded as long as the generalized "environment" is improved. There is no specific application of this cross-media trading scheme that would be appropriate as an antidegradation exemption under the antidegradation rule because by definition the application of the exemption would consistently allow significant impacts to water quality.

This does not mean that allowing significant reductions in water quality for the purpose of reducing exposure to "hazardous air pollutants or other air pollutants that are subject to state or federal air quality standards" (see Draft Section 4(b)(4)(C)(iii)(BB)) is never an important social

[24] Region 7 EPA letter dated March 25, 2009 to the general counsel of the Iowa Department of Natural Resources, in response to a legislative bill setting forth exemptions to antidegradation review.

and economic activity. But IDEM's over-simplified presumption that all such reductions in exposure are necessary to accommodate important social or economic development is to date unanalyzed and unjustified. Moreover, the exemption is written so broadly – significant water quality degradation will be allowed to reduce exposure to any "air pollutants that are subject to state or federal air quality standards" – that IDEM cannot show that all such reductions would pass the importance test. Nor can IDEM label the cross-media pollutant trade as a decision about "environmental improvement" and bypass the importance test altogether. Finally, the Section 5 Exemption Justification contains no analysis of social or economic importance and so cannot be used to analyze such importance on a case by case basis.

The tradeoff between air and water pollution must be evaluated in the context of a Tier 2 antidegradation demonstration that the lowering of water quality is necessary to accommodate this important public health objective. Exempting this tradeoff from an antidegradation demonstration with its necessary and importance tests is not consistent with the federal requirements. As discussed above, to properly and legally reduce the applicant's burden of demonstrating that lowering water quality in exchange for a reduction in a particular air pollutant is "necessary to accommodate important social or economic development," IDEM would need to (a) make a formal and public showing that this exchange is necessary to accommodate important social or economic development; or (b) make a formal and public showing that this exchange meets a subset of the factors in the Section 6 demonstration, and include the remaining Section 6 factors in the Section 5 Exemption Justification.

Questions

- Where in the record has IDEM provided a "well-founded determination" that any changes in water quality under this exemption will be de minimis?
- Is it IDEM's position that the situations described in Section 4(b)(4)(C), as a class, are necessary to accommodate important social or economic development?
- Has IDEM made a formal and public analysis and showing that all of the situations covered by 4(b)(4)(C), as a class, are necessary to accommodate important social or economic development? If so, where can the public obtain a copy of this analysis and showing?
- Has IDEM made a formal and public analysis and showing that all of the situations covered by 4(b)(4)(C), as a class, meet a subset of the factors in the Section 6 demonstration, and in addition has IDEM included the remaining Section 6 factors in the

Section 5 Exemption Justification? If so, where can the public obtain a copy of this analysis and showing?

- How will the application of the Section 5 Exemption Justification show on a case by case basis that the situations described in Section 4(b)(4)(C) are necessary to accommodate important social or economic development?
- How is this exemption from an antidegradation demonstration consistent with the Clean Water Act and EPA guidance, given that application of the exemption will allow significant impacts to water quality?
- Why should the exemption apply to BCCs and OSRWs?

Suggested Rule Language

Not applicable – delete Exemption 4(b)(4)(C).

4(b)(4)(D): Exemption for socio-economic importance of public health concerns

4(b)(4) The following exemptions from the antidegradation demonstration requirements included in section 6 of this rule require the submission of an exemption justification according to section 5 of this rule:

* * *

(D) A new or increased loading of a pollutant of concern from a sanitary wastewater treatment plant constructed or expanded to alleviate a public health concern, for example, a connection of existing residences currently on septic systems when all reasonable methods for minimizing or preventing the new or increased loading have been taken.

COMMENTS

This exemption, like Exemption 4(b)(4)(C), abandons EPA's principle that any exemptions from the antidegradation review process must be based upon a well-founded determination that the pollution discharges permitted under such exemptions will have a truly de minimis impact upon the water quality of the impacted waters. Exemption 4(b)(4)(D) trades a significant lowering of water quality for improvement in public health, but this trade does not result in a de minimis impact to water quality. Improving public health may be an important social and economic development, but this analysis is properly made within the context of a Tier 2 antidegradation demonstration. Similar to the discussion above for Exemption 4(b)(4)(C), this 4(b)(4)(D) "exemption" is not a proper vehicle for situations that are deemed likely to pass the Tier 2 "importance" test but that still produce significant lowering of water quality, where there has been no showing of such importance (such as would be required for a general permit) and the Exemption Justification does not require any information on social or economic importance of

the decrease in water quality. As discussed above, to properly and legally reduce the applicant's burden of demonstrating that lowering water quality in a particular scenario is "necessary to accommodate important social or economic development," IDEM would need to (a) make a formal and public showing that this exchange is necessary to accommodate important social or economic development; or (b) make a formal and public showing that this exchange meets a subset of the factors in the Section 6 demonstration, and include the remaining Section 6 factors in the Section 5 Exemption Justification.

Questions

- Where in the record has IDEM provided a "well-founded determination" that any changes in water quality under this exemption will be de minimis?
- Is it IDEM's position that the situations described in Section 4(b)(4)(D), as a class, are necessary to accommodate important social or economic development?
- Has IDEM made a formal and public analysis and showing that all of the situations covered by 4(b)(4)(D), as a class, are necessary to accommodate important social or economic development? If so, where can the public obtain a copy of this analysis and showing?
- Has IDEM made a formal and public analysis and showing that all of the situations covered by 4(b)(4)(D), as a class, meet a subset of the factors in the Section 6 demonstration, and in addition has IDEM included the remaining Section 6 factors in the Section 5 Exemption Justification? If so, where can the public obtain a copy of this analysis and showing?
- How will the application of the Section 5 Exemption Justification show on a case by case basis that the situations described in Section 4(b)(4)(D) are necessary to accommodate important social or economic development?
- How is this exemption from an antidegradation demonstration consistent with the Clean Water Act and EPA guidance, given that application of the exemption will allow significant impacts to water quality?
- Why should the exemption apply to BCCs and OSRWs?

Suggested Rule Language

Not applicable – delete Exemption 4(b)(4)(D).

V. SECTION 5: 327 IAC 2-1.3-5 EXEMPTION JUSTIFICATION.

COMMENTS

As we have argued immediately above, none of the so-called "exemptions" in 327 IAC 2-1.3-4(b)(4), to which the Section 5 exemption justification procedure applies, are appropriate as exemptions from antidegradation review, even with a Section 5 Exemption Justification.

It is not clear whether IDEM's position is that the Section 4(b)(4) exemptions, plus the Section 5 Exemption Justification, are functionally equivalent to an antidegradation demonstration. Regardless, the Exemption Justification requirement is <u>not</u> substantially equivalent to the necessary and importance tests of the antidegradation demonstration. This is clear when Section 5 is compared to Section 6. First, the Section 5 Exemption Justification, unlike the antidegradation demonstration in Section 6, applies only to new or increased loadings associated with an NPDES permit. Antidegradation applies to any action in Indiana that is required to comply with WQS (activities conducted pursuant to CWA §404 and §401, plus other discharges), not just actions covered by NPDES permits. See 40 C.F.R. §131.12(a); 63 Fed. Reg. 36742, 36780 (1998). Thus, the Section 4(b)(4) exemptions are limited to situations where a new, renewed, or modified permit is associated with the new or increased loading, a subset of the situations covered by the rule. Second, compared to the antidegradation demonstration requirements, the Exemption Justification uses a much diluted "necessary" test to analyze alternatives to the proposed new or increased loading. (Compare Section 5(c)(3) of the Draft Rule with the much more extensive "necessary" test set forth in Sections 6(b)(12) and (13) of the Draft Rule.) Third, the Exemption Justification does not require any information on, or analysis of, the social or economic importance of the actions to be exempted.

Furthermore, the public notice provisions in Section 5(b) require a public meeting on an exemption justification if the proposed discharge is to an OSRW. Discharges to tributaries of OSRWs do not require a public meeting, however, even though discharges into such tributaries may have a significant impact on the water quality of the OSRW. The term "tributary of an OSRW" is defined in Draft Rule Section 2(63), but it appears that this term is not used within the substantive parts of the Draft Rule. Section 5(b) should say that a public meeting is required for any proposed discharge to an OSRW or to a tributary of an OSRW.

Finally, it is important to recognize that the Draft Rule would allow the 4(b)(4) exemptions only where a new, renewed, or modified NPDES permit is sought for the change in loading, because the Exemption Justification in Section 5(a)(2) is so limited. The exemptions would not apply to a change in loading not associated with a new, renewed, or modified permit.

Questions

- Where in the record has IDEM demonstrated that the exemptions in Section 4(b)(4), plus the Section 5 Exemption Justification, are functionally equivalent to an antidegradation demonstration?
- Why did IDEM omit tributaries to OSRWs from the requirement of a public meeting even though discharges into tributaries of OSRWs can significantly reduce the water quality in OSRWs?

Suggested Rule Language

(b) Upon receipt of an exemption justification, the commissioner shall provide notice and request comment according to 327 IAC 5-2-11.2. The commissioner shall hold a public meeting on the exemption justification in accordance with 327 IAC 5-2-11.2 if:

(1) the proposed discharge is to an OSRW or to a tributary of an OSRW;

VI. SECTION 6: 327 IAC 2-1.3-6 ANTIDEGRADATION DEMONSTRATION APPLICATION.

A. 327 IAC 2-1.3-6(a): Demonstration applicability

INTRODUCTION

Draft Section 6(a) states as follows:

(a) Any existing or proposed discharger seeking a new or increased discharge that constitutes a significant lowering of water quality that is not exempt under section 4(b)(4) of this rule, must submit for consideration by the commissioner an antidegradation demonstration application that justifies that the proposed new or increased discharge is necessary for providing a social or economic benefit in the area of the discharge.

COMMENTS

IDEM inexplicably uses language that deviates from both the federal and Indiana antidegradation standard.

Questions

- Why did IDEM not use the standard language "necessary to accommodate important social or economic development in the area of the discharge" in this provision?

Suggested Rule Language

(a) Any existing or proposed discharger seeking a new or increased discharge that constitutes a significant lowering of water quality that is not exempt under section 4 of this rule, must submit for consideration by the commissioner an antidegradation demonstration application consistent with the requirements in this section that justifies that the proposed new or increased discharge is necessary to accommodate important social or economic development in the area of the discharge.

B. 327 IAC 2-1.3-6(b): Antidegradation demonstration factors

INTRODUCTION

Federal Tier 2 antidegradation protections prohibit the lowering of water quality unless it is "necessary to accommodate important social or economic development." 40 C.F.R. § 131.12(a)(2). EPA guidance makes clear that this includes two important questions:

(1) Is the lowering of water quality "necessary," i.e. has the applicant adequately documented that non-degrading or less-degrading alternatives are not available?

(2) Will the regulated activity lead to "important" social and economic development, i.e. has the applicant adequately documented that the positive socioeconomic impact of the regulated activity, on balance, outweighs any negative socioeconomic impacts associated with the lowering of water quality?

COMMENTS

First, the proposed discharge must be "necessary." Satisfying this inquiry demands an analysis of alternatives to the proposed discharge. The "necessary" analysis questions whether it is possible to minimize, mitigate, or avoid the proposed discharge or its impacts to water quality through technology or other means. EPA has stated that "[g]iven the variety of engineering approaches to pollution control and the emerging importance of pollution prevention, the finding

of necessity is among the most important and useful aspects of an antidegradation program and potentially an extremely useful tool in the context of watershed planning."[25]

Second, the activity that the applicant claims requires a new or increased discharge must accommodate important social or economic development in the area of the receiving waterbody. The demonstration of "importance" focuses on the socio-economic benefits of the proposed activity counterbalanced against the socioeconomic costs of the proposal and the projected environmental effects. This balancing concept is key. Socioeconomic development cannot be said to be "important" if the potential economic and social benefits of the project are outweighed by the overall costs to society of allowing additional pollution to the water.[26] Accordingly, if the negative environmental, social, and economic impacts of the action outweigh the positive environmental, social, and economic impacts, then the antidegradation application must be denied.

EPA views the antidegradation demonstration as a stringent test, a test certainly not met by every applicant:

> This provision is intended to provide relief 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.*[27]

The most apparent result of a "significant lowering of water quality" will be a reduction in assimilative (loading) capacity for one or more pollutants of concern. This impact on assimilative capacity may not cause readily discernable harm to aquatic biota, assuming that water quality criteria are not violated, and the applicant may be tempted to conclude that there are no negative impacts. The impact to assimilative capacity may, however, harm the social and economic value that the community and industry places on maintaining high assimilative capacity. This harm must be balanced against the social and economic benefits of a proposed

[25] 63 Fed. Reg. 36742, 36784.
[26] See U.S. EPA Region VIII Guidance: Antidegradation Implementation (August 1993), page 21 (stating that the inquiry should "weigh the applicant's demonstration against counterbalancing socioeconomic costs associated with the proposed activity, such as projected negative socio-economic effects on the community and the projected environmental effects").
[27] U.S. EPA Water Quality Standards Handbook, Second Edition (August 1994), Pages 4-7 (emphasis added).

activity to determine whether the development is "important." As noted in the Washington State procedures:

> Particularly for parameters such as dissolved oxygen, bacterial pollutants, and common metals, the loss of available assimilative capacity may mean that future entities and expansions will be held to higher and more expensive treatment requirements. The less each individual activity uses of the assimilative capacity, the better the potential for cost-effective future development will be. Discussing the relative impact on the remaining assimilative capacity addresses the relative impact of the activity on the costs and opportunities for future growth.[28]

The Washington State rules balance a number of factors to determine whether or not the proposed lowering of water quality is in the "overriding public interest." See WAC 173-201A-320(4)(a). The Connecticut implementation procedures similarly require applicants to balance "overriding" economic or social factors against the loss or reduction of environmental quality.[29] Iowa's draft implementation procedures follow a similar balancing approach, including an assessment of associated environmental related benefits or costs such as:

- Promoting/impacting fishing, recreation, tourism or other economic benefits for the Community; and
- Reserving assimilative capacity for future industry and development.[30]

Questions

- How can IDEM assure that a proposed lowering of water quality will result in "important" social and economic development without including in Section 6(b) factors such as those suggested below?

Suggested Rule Language

IDEM omitted but should include three additional factors to Section 6(b) to ensure that the impacts of reducing assimilative capacity are sufficiently evaluated. The rules should clarify that quantitative and qualitative data are appropriate and can be considered by IDEM in determining whether social and economic development is "important."

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[28] Washington State Supplementary Guidance Implementing the Tier II Antidegradation Rules (July 18, 2005) WAC 173-201A-320, page 15.
[29] *See* Connecticut Anti-degradation Implementation Policy, Appendix E(IV)(2).
[30] *See* Iowa Antidegradation Implementation Procedure, Section 3.3 (available at http://www.iowadnr.gov/water/standards/antidegradation.html).

(15) The evaluation of the anticipated impact of the proposed lowering of water quality, using quantitative and qualitative data as appropriate, on economic and social factors, including the following:
* * *

( ) The value to residents in the area of the activity accommodated by the proposed reduction in loading capacity.
( ) The value to the community of reserving additional loading capacity for future industry, development, tourism, or environmental protection.[31]
( ) The potential for reduced effectiveness of government or privately sponsored conservation projects that have specifically targeted improved water quality or enhanced recreational opportunities on the proposed receiving waterbody.[32]

C. 327 IAC 2-1.3-6(b)(15)(O): Provision in importance test

INTRODUCTION

Draft Section 6(b)(15)(O) states as follows:

(O) Demonstration by the permit applicant that the factors identified and reviewed under clauses (A) through (N) are necessary to accommodate important social or economic development despite the proposed significant lowering of water quality.

COMMENTS

Once again (see comments above for 327 IAC 2-1.3-6(a)), IDEM inexplicably modifies the language of the antidegradation standard. As modified, this provision is not clear. The positive and negative social or economic development impacts identified and reviewed under clause 15(A) are not necessary to accommodate development, but rather they are evidence of the importance or lack of importance of the proposed action. Also, this provision should not be limited to "permit applicants." In contrast, Section 6(a) states that the demonstration applies to any discharger "seeking a new or increased discharge that constitutes a significant lowering of water quality" without reference to permits.

Questions

- Why did IDEM not use the standard language "necessary to accommodate important social or economic development in the area of the discharge" in this provision?

[31] Washington State Supplementary Guidance Implementing the Tier II Antidegradation Rules (July 18, 2005) WAC 173-201A-320, page 15.
[32] This factor is included in the current interim antidegradation rule at 327 IAC 5-2-11.3(b)(3)(C)(vi).

- Why should the antidegradation review of the factors in subdivision (15) apply only to "permit applicants"? Does not antidegradation review apply to a new or increased discharge regardless of whether a new or modified permit limit is sought?

Suggested Rule Language

6(b)(15)(O) should be written as follows:

Demonstration by the discharger seeking a new or increased discharge that, given the positive and negative social and economic impacts identified and reviewed under clauses (A) through (N), allowing the lowering of water quality is necessary to accommodate important economic or social development in the area.

D. 327 IAC 2-1.3-6(c)(1): Substantial weight requirement amounts to abdication of CWA authority

INTRODUCTION

Draft Section 6(c)(1) states as follows:

(c) In determining whether a proposed discharge is necessary to accommodate important economic or social development in the area in which the waters are located under antidegradation standards and implementation procedures, the commissioner:
(1) must give substantial weight to any applicable determinations by governmental entities; . . .

COMMENTS

Draft Section 6(c)(1) requires that "substantial weight" be given to "any applicable determinations by governmental entities." If interpreted to require IDEM to give special deference to determinations by governmental bodies without CWA authority of whether a lowering of water quality is "necessary" or "important," this provision improperly and illegally abdicates and delegates IDEM's authority for a decision required under the CWA.

IDEM's stated position on this provision, and its interpretation of Public Law 78-2009, is as follows:

> The draft rule has been developed mindful of the federal requirements and other guidance. Public Law 78-2009 requires IDEM to give substantial weight to determinations by governmental entities concerning whether a proposed discharge is necessary to accommodate important economic or social development in the area in which the waters are located. However, the final decision about the project's social and economic benefits to the community resides with the commissioner.[33]

[33] IDEM Second Notice of Comment Period, LSA Document #08-764, page 20.

IDEM's position on this provision highlights and exacerbates the provision's illegality. Contrary to IDEM's interpretation, it is precisely the decision concerning "whether a proposed discharge is necessary to accommodate important economic or social development in the area in which the waters are located" that must be reserved exclusively to the IDEM commissioner. Decisions about the project's individual social and economic benefits, on the other hand – such as how many new jobs will be produced – may be appropriate for some level of deference if the "governmental entity" has jurisdiction and particular expertise in that subject area. Passage of Public Law 78-2009 does not shield Draft Section 6(c)(1) from illegality or disapproval by EPA.

A detailed look at Draft Section 6(c)(1) highlights its problems. The phrase "substantial weight" in law and court decisions reflects two concepts: first, substantial deference is given to a decision maker, and second, the decision maker receiving the deference is an expert on the subject of the decision.

Surely IDEM could not legally defer to another entity's determination that the permit applicant will meet the best available technology of pollution control without abdicating IDEM's delegated authority under the CWA. IDEM is clearly the expert on the "necessary" test of alternatives and must exercise its CWA authority in this subject area to satisfy federal requirements.

Similarly, IDEM could not give substantial weight to another agency's determination that the proposed polluting activity is socially or economically "important" without improperly abdicating its delegated authority under the CWA. For example, any "determination" by another governmental entity that an increase in jobs and in tax base makes a polluting activity "important" is not applicable to IDEM's Tier 2 or Tier 2.9 determination, which must weigh benefits against the costs of lowering water quality. Another entity's determination will be unlikely to consider, benefits and costs resulting from the use of assimilative (loading) capacity. In other words, no other governmental entity (other than EPA) has the expertise or the CWA jurisdiction to make a determination of the "importance" of lowering water quality.

The only decisions of other governmental entities that reasonably could be given deference in the antidegradation demonstration are those related to the individual factors in Draft Section

6(b)(15)(A) through (N). For example, IDEM could defer to an economic development body on how many jobs would be created or by how much the tax base would increase if a discharger were to change capacity or processes. IDEM would then take this information and determine whether this increase in jobs or tax base makes the proposed activity important socially or economically. If this is the type and scope of deference that IDEM is attempting to incorporate in Draft Section 6(c)(1), then it has failed.

Finally, this provision would compromise IDEM's ability to adequately weigh relevant public comment in evaluating a proposed action and render moot the federal requirement for "full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process" (40 CFR 131.12(a)(2)/132 Appendix E, I.B). For this reason also it is inconsistent with federal requirements.

Questions

- How can IDEM implement the "substantial weight" requirement without delegating or abdicating the key antidegradation decision on whether a reduction in water quality is necessary to accommodate social or economic development to a body without any Clean Water Act authority or expertise?

Suggested Rule Language

(c) In determining whether a proposed discharge is necessary to accommodate important economic or social development in the area in which the waters are located under antidegradation standards and implementation procedures, the commissioner:

(1) may give weight to any applicable determinations by governmental entities regarding individual factors in subsection (b); . . .

or delete this provision from the rule.

E. 327 IAC 2-1.3-6(c)(2): IDEM cannot rationally rely on one factor

INTRODUCTION

Draft Section 6(c)(2) states as follows:

(c) In determining whether a proposed discharge is necessary to accommodate important economic or social development in the area in which the waters are located under antidegradation standards and implementation procedures, the commissioner:
* * *

(2) may rely on consideration of any one (1) or a combination of the factors listed in subsection (b)(15).

COMMENTS

Draft Section 6(c)(2), without further constraint, is inconsistent with the antidegradation policy set forth in 40 C.F.R. §131.12 and in Draft Section 3. There are three fatal flaws in this provision.

First, the determination of whether "a proposed discharge is necessary to accommodate important economic or social development in the area in which the waters are located under antidegradation standards and implementation procedures" requires consideration of a number of factors besides those in subdivision (b)(15). The determination depends on both the "necessary" and the "importance" tests. The "necessary" test, which involves consideration of alternatives to the proposed discharge, is incorporated in subdivisions (b)(12), (13), and (14), as well as in Draft Section 6(d). No factors relevant to the "necessary test" are included in subdivision (b)(15). Thus, if the commissioner relied on only the factors in subdivision (b)(15), he or she could not apply the "necessary" test of alternatives. Thus, Draft Section 6(c)(2) as currently proposed would allow the primary determination required under antidegradation policy – that allowing the lowering of water quality is necessary to accommodate important economic or social development in the area in which the waters are located (see 40 CFR §131.12(a)(2) and Draft Sections 3(b) and (c)) – to be based solely on, for example, the number of jobs created.

Second, even if Draft Section 6(c)(2) were to be reworded and limited to the "importance" test, the selection of factors in subdivision (b)(15) omits several key social and economic factors listed in other subdivisions. Specifically, these additional social and economic factors are relegated to subdivisions (b)(6) through (10), which state as follows:

(6) The anticipated impact of the proposed lowering of water quality on aquatic life and wildlife, considering the following:
- (A) Threatened and endangered species.
- (B) Important commercial or recreational sport fish species.
- (C) Other individual species.
- (D) The overall aquatic community structure and function.

(7) The anticipated impact of the proposed lowering of water quality considering the following:
- (A) Human health.

(B) The overall quality and value of the water resource.

(8) The degree to which water quality may be lowered in waters located within the following:

(A) National, state, or local parks.

(B) Preserves or wildlife areas.

(C) OSRWs or ONRWs.

(9) The effects of lower water quality on the social and economic value of the receiving water or waters considering the following:

(A) Recreation, tourism, and other commercial activities.

(B) Aesthetics.

(C) Other use and enjoyment by humans.

(10) The extent to which the resources or characteristics adversely impacted by the lowered water quality are unique or rare within the locality or state.

Only five of these thirteen factors overlap with the factors in the (b)(15) factors: the impact on human health ((15)(I)); the impact on the quality of life for residents in the area ((15)(K)); the impact on fishing, recreation, and tourism ((15)(L)); and the impact on threatened or endangered species ((15)(M)). Thus, Draft Section 6(c)(2), even if modified to be limited to the "importance" test, would allow the commissioner to completely ignore the following factors in his or her determination of social or economic importance:

- the overall aquatic community structure and function
- the overall quality and value of the water resource
- national, state, or local parks
- preserves or wildlife areas
- OSRWs or ONRWs
- Aesthetics
- other use and enjoyment by humans
- the extent to which the resources or characteristics adversely impacted by the lowered water quality are unique or rare within the locality or state.

Third, even if Draft Section 6(c)(2) were to be reworded so it is limited to the "importance" test, the commissioner's determination" that a polluting activity is socially or economically "important" must weigh any benefits against the costs of lowering water quality and using assimilative capacity, such as impacts on endangered species, fishing, and aesthetics. The determination of importance normally cannot be made based on a single factor. For example, if a determination of importance is made based solely on the number of jobs gained, we cannot gauge how many added jobs make a facility expansion "important." We cannot know whether creating 10 new jobs is "important" without weighing that benefit against the costs of the

expansion. Similarly, we cannot know whether a decline in tourism is "important" without weighing that cost against the benefits of the expansion. A reasoned antidegradation determination cannot be made without weighing the costs and benefits, and this requires consideration of more than one factor. The effect of allowing the commissioner to make the "importance" decision based on a single factor is to grant unconstrained discretion and essentially vitiates the list of factors in Draft Section 6(b).

Questions

- Why does IDEM allow the primary determination required under antidegradation policy – that allowing the lowering of water quality is necessary to accommodate important economic or social development in the area in which the waters are located – to be based solely on factors that do not address the "necessary" test of alternatives?
- Why does IDEM segregate a number of key social and economic factors outside of subdivision (b)(15) and then allow the commissioner to make the antidegradation demonstration finding based only on one or more factors within subdivision (b)(15)?
- How can the IDEM commissioner make a reasonable antidegradation determination based on a single factor when an accurate cost-benefit analysis requires the consideration of multiple factors?

Suggested Rule Language

There are alternative ways to fix the flaws in Draft Section 6(c)(2). A simple way is the following:

> (c) In determining whether a proposed discharge is necessary to accommodate important economic or social development in the area in which the waters are located under antidegradation standards and implementation procedures, the commissioner:
> * * *
> (2) shall consider the antidegradation demonstration factors listed in subsections (b)(1) through (b)(15);
> (3) shall consider information received from the public pursuant to section 7 of this rule; and
> (4) may consider any other information available to the commissioner.

F. 327 IAC 2-1.3-6(d): Options for applicant

INTRODUCTION

Draft Section 6(d) states as follows:

(d) The discharger may either:

(1) accept effluent limits for mass and concentration based on the BADCT, when available, as established by the department; or
(2) include as part of its antidegradation demonstration application a request for the commissioner's review and approval of an alternative treatment technique analysis that includes submission of the following information:
(A) The available alternative or enhanced treatment techniques, including new and innovative technologies.
(B) A review of how the alternative or enhanced treatment techniques available to the applicant would minimize or prevent the proposed significant lowering of water quality.
(C) The effluent concentrations attainable by employing the alternative or enhanced treatment techniques.
(D) The costs associated with employing the alternative or enhanced treatment techniques relative to the cost of treatment necessary to achieve effluent limitations based on the de minimis lowering of water quality.
(E) The alternative or enhanced treatment techniques selected to be employed and an explanation of why those selections were made.
(F) The reliability of the selected treatment alternative or alternatives, including, but not limited to, the possibility of recurring operational and maintenance difficulties that would lead to increased degradation.

COMMENTS

The theoretical concept of BADCT is that it replaces a rigorous professional evaluation of different treatment options (i.e., the "necessary" analysis of the antidegradation demonstration). Given the proposed definition of BADCT in Section 2(3) (see above comments on definition of BADCT), there is no indication or justification that setting BADCT as defined can adequately replace such an evaluation.

Under Draft Section 6(d) as written, dischargers may opt out of a full consideration of alternatives by accepting particular BADCT limits. As a result, the BADCT limit is used in the Draft Rule as a "trigger" for antidegradation review: if the applicant meets the BADCT limit, the full antidegradation demonstration is not required. (It is not clear whether the importance test is still required.) This truncation of the alternatives analysis is not consistent with federal requirements or even with section 6(b). 40 C.F.R. §131.12(a)(2) requires that the increased loading be shown to be necessary but such increased loading is not necessary if there are alternative methods of handling the wastewater through which the increased loading could be avoided or minimized. BADCT, as defined in Section 2 of the Draft Rule, does not state the best feasible treatment for any of the categories to which it is applied. Moreover, even to the limited extent that BADCT limits could accurately be said to represent "state of the art," allowing a discharger to use BADCT limits in place of a proper antidegradation analysis would circumvent

consideration of no discharge alternatives – alternatives that involve creating less wastewater or waste and alternative discharge locations.

Further, it appears that a discharger of sanitary wastewater could avoid controlling phosphorus or nitrogen – even to levels that are recognized as feasible[34] – simply by accepting a permit with BADCT limits. Allowing unnecessary phosphorus and nitrogen pollution is clearly inconsistent with the Clean Water Act and prudent public policy.

On the other hand, Draft Section 6(b)(12) and (13) seems to require a broad consideration of alternatives. It is, then, difficult to reconcile Section 6(d) with Sections 6(b)(12) and (13). Similarly, it is also difficult to reconcile Section 6(d) with Section 7(c) and (d)(1). Sections 7(c) and (d)(1) appear to require the commissioner to deny a permit where less polluting alternatives are available or nondegradation alternatives have been examined without regard to the BADCT provision.

Questions

- Can any dischargers opt out of a full consideration of alternatives, including the no-discharge alternative and alternative locations, by accepting particular BADCT limits? If so, how does this comply with antidegradation policy?
- Can any dischargers opt out of an importance test in Section 6(b) by accepting particular BADCT limits? If so, how does this comply with antidegradation policy?
- Can a discharger of sanitary wastewater avoid controlling phosphorus or nitrogen – even to levels that are recognized as feasible – simply by accepting a permit with BADCT limits? If so, how does this comply with antidegradation policy?
- Is Draft Section 6(d) fully consistent with the other provisions of the Draft Rule, particularly Sections 6(b)(12) and (13), and 7(c) and (d)(1)?

Suggested Rule Language

Perhaps, some provision like proposed 6(d) could properly be adopted. However, the problems with the definition of BADCT would first have to be remedied, and Section 6(d) would have to do the following:

- assure that no-discharge alternatives, and alternative discharge locations, are considered before BADCT could be selected; and

[34] See Hypoxia in the Northern Gulf of Mexico, EPA Science Advisory Committee, EPA-SAB-08-003 (Dec. 2007).

- be based on defined BADCT limits that really were close to the "state of the art" or at least actually represented the best treatment already being practiced for the relevant group of dischargers.

Based on the current record, the BADCT exception at Section 6(d)(1) should be deleted.

VII. SECTION 7: 327 IAC 2-1.3-7 COMMISSIONER'S DETERMINATION ON ANTIDEGRADATION DEMONSTRATION APPLICATION.

A. 327 IAC 2-1.3-7(a): Public meetings

INTRODUCTION

Draft Section 7(a) states in relevant part:

(a) Upon receipt of an antidegradation demonstration application, the commissioner shall provide notice and request comment according to 327 IAC 5-2-11.2. The commissioner shall hold a public meeting on the antidegradation demonstration application in accordance with 327 IAC 5-2-11.2 if:
(1) the proposed discharge is to an OSRW;

COMMENTS

The public notice provision in Draft Section 7(a) requires a public meeting on an exemption justification if the proposed discharge is to an OSRW. Discharges to tributaries of OSRWs do not require a public meeting, however, even though discharges into such tributaries may have a significant impact on the water quality of the OSRW. The term "tributary of an OSRW" is defined in Draft Rule Section 2(63), but it appears that this term is not used within the substantive parts of the Draft Rule. Section 7(a) should say that a public meeting is required for any proposed discharge to an OSRW or to a tributary of an OSRW.

Questions

- Why did IDEM omit discharges into tributaries to OSRWs from the requirement of a public meeting, even though IDEM recognizes that discharges into tributaries of OSRWs can significantly lower the water quality within OSRWs?

Suggested Rule Language

(a) Upon receipt of an antidegradation demonstration application, the commissioner shall provide notice and request comment according to 327 IAC 5-2-11.2. The commissioner shall hold a public meeting on the

antidegradation demonstration application in accordance with 327 IAC 5-2-11.2 if:

(1) the proposed discharge is to an OSRW or to a tributary of an OSRW;

B. 327 IAC 2-1.3-7(f): Explanation of commissioner's decision

INTRODUCTION

Draft Section 7(f) states in relevant part:

> (f) When the commissioner makes a determination on an antidegradation demonstration application, the commissioner shall public notice the antidegradation demonstration determination according to 327 IAC 5-2-11.2 and the final determination shall be:
>
> (1) summarized in the public notice form prepared by the commissioner; and
>
> (2) incorporated into the draft permit and the fact sheet that is made available for public comment under 327 IAC 5-3-9.

COMMENTS

To clarify IDEM's obligations under antidegradation and the public notice requirement, the rule should require IDEM to document, with regard to the commissioner's decision on the antidegradation demonstration: (1) which factors the commissioner considered in making his or her determination; (2) what weights these factors were given; and (3) what determinations of other governmental entities were considered.

Questions

None needed

Suggested Rule Language

(f) When the commissioner makes a determination on an antidegradation demonstration application, the commissioner shall:

(1) state which factors the commissioner considered in making his or her determination;

(2) state what determinations of other governmental entities were considered; and

(3) public notice the antidegradation demonstration determination according to 327 IAC 5-2-11.2 and the final determination shall be:

(A) summarized in the public notice form prepared by the commissioner; and

(B) incorporated into the draft permit and the fact sheet that is made available for public comment under 327 IAC 5-3-9.

C. 327 IAC 2-1.3-7(g): Water quality improvement in OSRWs

INTRODUCTION

Draft Section 7(g) states as follows:

> (g) In addition to the information provided in the antidegradation demonstration application according to subsection (b)(1) and (b)(2), a discharger proposing to cause a significant lowering of water quality in an OSRW shall:
>
> (1) implement a water quality improvement project in the watershed of the affected OSRW; or
>
> (2) fund a water quality improvement project in the watershed of the affected OSRW by payment of a fee into the OSRW improvement fund established under IC 13-18-3-14; for each activity undertaken that will result in a significant lowering of water quality in an OSRW. A discharger proposing to implement or fund a water quality improvement project shall submit an application as required under section 8 of this rule.

COMMENTS

Using the term watershed in this provision without specifying the HUC level[35] would, according to the definition of watershed in Draft Section 2(69) (which follows Ind. Code 14-8-2-310[36]), allow an "offsetting" improvement project to be implemented hundreds of miles away from the location of the significant reduction in water quality. The HUC level must be provided in the provision, and that level should be equal to or higher than a ten-digit HUC (i.e., HUC-10, 11, or 14).

Questions

None needed

Suggested Rule Language

(g) In addition to the information provided in the antidegradation demonstration application according to subsection (b)(1) and (b)(2), a discharger proposing to cause a significant lowering of water quality in an OSRW shall:

(1) implement a water quality improvement project in the HUC-10 or HUC-11 watershed of the affected OSRW; or

(2) fund a water quality improvement project in the HUC-10 or HUC-11 watershed of the affected OSRW by payment of a fee into the OSRW

[35] HUC is the acronym for Hydrologic Unit Code (HUC). Every hydrologic unit is identified by a unique HUC consisting of 2 to 14 digits based on the levels of classification in the hydrologic unit system. The lower-48 states have 18 2-digit HUCs. See http://water.usgs.gov/nawqa/sparrow/wrr97/geograp/geograp.html.

[36] "Watershed", for purposes of IC 14-25 through IC 14-29, means an area:

(1) from which water drains to a common point; and

(2) for:

(A) a watercourse, that is measured to the mouth of the watercourse; and

(B) any part of a watercourse, that is measured to the farthest downstream point in question.

> improvement fund established under IC 13-18-3-14; for each activity undertaken that will result in a significant lowering of water quality in an OSRW. A discharger proposing to implement or fund a water quality improvement project shall submit an application as required under section 8 of this rule.

Thank you for considering and responding to our comments and questions.

Sincerely,

For the Antidegradation Environmental Coalition:

Jeffrey B. Hyman, Ph.D., J.D.
Staff Attorney
Conservation Law Center
116 S. Indiana Ave. Suite 4
Bloomington, IN 47408
(812) 856-5737 (Direct Line)
(765) 994-5872 (Cell Phone)
jbhyman@indiana.edu
[also representing Alliance for the Great Lakes]

Albert Ettinger, J.D., Senior Staff Attorney
Bradley Klein, J.D., Staff Attorney
Environmental Law and Policy Center
35 E. Wacker Drive, suite 1300
Chicago, IL 60601
aettinger@elpc.org
bklein@elpc.org

Rae Schnapp, Ph.D., Water Policy Director and Wabash Riverkeeper
Tim Maloney, Senior Policy Director
3951 North Meridian, Suite 100
Hoosier Environmental Council
Indianapolis, IN 46208
rschnapp@hecweb.org
tmaloney@hecweb.org

Bowden Quinn
Conservation Program Coordinator
Sierra Club Hoosier Chapter
1915 W. 18th St., Suite D
Indianapolis, IN 46202
(317) 822-3750

Comments on IDEM's 2nd Notice Draft Rule (Antidegradation) from Environmental Coalition

bowden.quinn@sierraclub.org

Lyman Welch
Manager, Water Quality Program
Alliance for the Great Lakes
17 N. State St., Suite 1390
Chicago, IL 60602
lwelch@greatlakes.org

Comments on IDEM's 2nd Notice Draft Rule (Antidegradation) from Environmental Coalition
Attachment A -- Proposed Edits to Draft Rule

DRAFT RULE
SECTION 1. 327 IAC 2-1.3 IS ADDED TO READ AS FOLLOWS:
Rule 1.3. Antidegradation Standards and Implementation Procedures

327 IAC 2-1.3-1 Applicability of antidegradation standards and implementation procedures
Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18
Affected: IC 13-18-3; IC 13-18-4
Sec. 1. (a) The antidegradation standards established by this rule apply to all surface waters of the state.
(b) Except as provided under section 4 of this rule, the antidegradation implementation procedures established by this rule apply to a proposed new or increased loading of a pollutant of concern to a surface water of the state, **including but not limited to new or increased loadings authorized by NPDES permits, Clean Water Act Section 401 certifications, and Clean Water Act Section 404 permits.**
(c) For activities covered by an NPDES general permit authorized by rule, the following apply:
(1) The department shall complete an antidegradation review of the rules of the board that authorize NPDES general permits **in order to ensure that individual and/or cumulative uses of the general permit will not have the potential to significantly degrade water quality of the State. The board shall describe in writing how the general permit or control program meets the antidegradation requirements of this Section at the time each general permit or program is approved.**
(2) The board ~~may~~ **shall** modify those rules for purposes of antidegradation compliance **in cycles not to exceed five years**.
(3) General permits may not be used to authorize activities that result in a lowering of water quality in outstanding national resource waters or outstanding state resource waters.
(4) After an antidegradation review of a rule is conducted, activities covered by an NPDES general permit authorized by that rule are not required to undergo an additional antidegradation review, **provided that a public notice of intent to proceed under a general permit is published on the Department's webpage including:**
(A) a list of the facilities involved and the receiving waters they may affect, and
(B) the method by which public comments will be considered.
(5) Where it appears, based on public comment or the Department's own determination, that an individual use or multiple cumulative uses of a general permit may result in a significant lowering of water quality, the Department shall either require additional conditions for individual coverage which will prevent such degradation or require an individual permit.
(Water Pollution Control Board; 327 IAC 2-1.3-1)

327 IAC 2-1.3-2 Definitions
Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18
Affected: IC 13-11-2-265; IC 13-13-1-1; IC 13-18-1; IC 13-18-3-2; IC 14-8-2-310; IC 14-22-34; IC 36-2-3.5; IC 36-3-1
Sec. 2. The following definitions apply throughout this rule and 327 IAC 2-1, this rule, and 327 IAC 2-1.5:
(1) "Antidegradation demonstration application" means an application for a proposed new or increased loading of a pollutant of concern, except as provided under section 4 of this rule, to a surface water of the state that will result in a significant lowering of water quality.
(2) "Application" means an application for either of the following:
(A) A permit.
(B) A determination related to a permit.
~~(3) "Best available demonstrated control technology" or "BADCT" means wastewater treatment capable of meeting the following effluent limitations or design criteria:~~
~~(A) For the discharge of sanitary wastewater from a facility using conventional treatment technologies, the effluent limitations are as follows:~~
~~(i) CBOD of ten (10.0) mg/l monthly average and fifteen (15.0) mg/l weekly average.~~
~~(ii) Total suspended solids of twelve (12.0) mg/l monthly average and eighteen (18.0) mg/l weekly average.~~

~~(iii) Ammonia as N, in summer, of one and one-tenth (1.1) mg/l monthly average and one and six-tenths (1.6) mg/l weekly average.~~
~~(iv) Ammonia as N, in winter, of one and six-tenths (1.6) mg/l monthly average and two and four-tenths (2.4) mg/l weekly average.~~
~~(v) E. coli of one hundred twenty-five (125.0) colonies per one hundred (100) ml monthly geometric mean when a minimum of five (5) samples are taken and two hundred thirty-five (235.0) colonies per one hundred (100) ml daily maximum or not more than ten percent (10%) of all samples in a calendar month exceed two hundred thirty-five (235.0) colonies per one hundred (100) ml daily maximum when a minimum of ten (10) samples are taken.~~
~~(vi) Dissolved oxygen not less than six (6.0) mg/l.~~
~~(vii) Total residual chlorine not greater than two-hundredths (0.02) mg/l.~~
~~(B) For the discharge of sanitary wastewater from an alternative treatment technology, such as a:~~
~~(i) lagoon system;~~
~~(ii) land application and controlled discharge system;~~
~~(iii) constructed wetland system; or~~
~~(iv) combined sewer overflow control system;~~
~~effluent limitations shall be developed by the department on a case-by-case basis.~~
~~(C) For an industrial direct discharge subject to federal effluent guidelines, the facility shall be designed to meet the most stringent of the:~~
~~(i) new source performance standards;~~
~~(ii) best conventional pollutant control technology;~~
~~(iii) best available technology economically achievable; and~~
~~(iv) best practicable control technology currently available;~~
~~for the appropriate categorical guidelines of 40 CFR 400 through 40 CFR 471.~~
~~(D) For a categorical industrial indirect discharger, the facility shall be designed to meet the following:~~
~~(i) Categorical pretreatment standards for existing sources.~~
~~(ii) Categorical pretreatment standards for new sources.~~
~~(E) For a noncategorical industrial direct or indirect discharger, effluent limitations will be developed~~
~~based upon best engineering and professional judgment in accordance with 327 IAC 5-5-2.~~
~~(F) For a wastewater discharge resulting from the cleanup of a response action site contaminated with volatile organic compounds, the facility shall include:~~
~~(i) airstripping;~~
~~(ii) carbon columns;~~
~~(iii) both items (i) and (ii); or~~
~~(iv) equivalent treatment;~~
~~capable of achieving final thirty-day average effluent limits of five (5) micrograms per liter or less for each individually regulated volatile organic compound.~~
(4) "Best management practices" or "BMPs" means the following measures to prevent or reduce the pollution of surface waters of the state:
(A) Schedules of activities.
(B) Prohibitions of practice.
(C) Treatment requirements.
(D) Operation and maintenance procedures.
(E) Use of containment facilities.
(F) Other management practices.
BMPs may be employed, for example, to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage resulting from manufacturing, commercial, mining, or silvicultural activities.
(5) "Bioaccumulation" means the net accumulation of a substance by an organism as a result of uptake from all environmental sources.
(6) "Bioaccumulation factor" or "BAF" means the ratio (in liters per kilogram) of a substance's concentration in tissue of an aquatic organism to its concentration in the ambient water in situations where:
(A) both the organism and its food are exposed; and

(B) the ratio does not change substantially over time.
(7) "Bioaccumulative chemical of concern" or "BCC" has the meaning set forth in 327 IAC 2-1.5-6.
(8) "Board" means the water pollution control board established under IC 13-18-1.
(9) "CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9601 through 42 U.S.C. 9675, as amended on October 11, 1996.
(10) "Clean Water Act" or "CWA" means the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., as amended on December 16, 1996.
(11) "Combined sewer" means a sewer designed and employed to receive both of the following:
(A) Water-carried or liquid wastes.
(B) Storm or surface water.
(12) "Commissioner" means the commissioner of the department.
(13) "Community" means a general collective term to describe the varieties of aquatic species and associated organisms living together in a waterbody.
(14) "Criterion" means a definite numerical value or narrative statement promulgated by the board to maintain or enhance water quality to provide for and fully protect designated uses of the surface waters of the state.
(15) "Degradation" means, ~~with respect to an NPDES permit~~ for purposes of an antidegradation demonstration, the following:
(A) For an ONRW, any new or increased discharge of a pollutant of concern, except for a short-term, temporary, **and limited** increase as described under section 4(a) of this rule.
(B) For an HQW, including an OSRW **but excluding an ONRW**, any new or increased loading of a pollutant of concern, except as provided under section 4 of this rule, to a surface water of the state that results in a significant lowering of water quality for that pollutant of concern.
(16) "Department" means the department of environmental management established under IC 13-13-1-1.
(17) "Designated uses" means those uses specified in these water quality standards for each waterbody whether or not they are being attained. Waste:
(A) transport;
(B) treatment; and
(C) assimilation;
shall not be designated uses.
(18) "Discharge" or "direct discharge", when used without qualification, means a discharge of a Pollutant. ~~of concern.~~
(19) "Draft permit" means a document prepared by the commissioner under 327 IAC 5-3-6 before the public comment period indicating the commissioner's tentative decision to:
(A) issue or deny;
(B) modify;
(C) revoke and reissue;
(D) terminate; or
(E) reissue;
a permit. A notice of intent to terminate a permit and a notice of intent to deny a permit are types of draft permits. A denial of a request for modification, revocation and reissuance, or termination is not a draft permit. A proposed permit is not a draft permit.
(20) "Effluent" means a wastewater discharge from a point source to the surface waters of the state.
(21) "Effluent limitation" means any restriction established by the commissioner on:
(A) quantities;
(B) discharge rates; and
(C) concentrations;
of pollutants that are discharged, or will be discharged, from point sources into surface waters of the state.
(22) "Existing uses" means those uses actually attained in the waterbody on or after November 28, 1975, whether or not they are included under 327 IAC 2-1-3 or 327 IAC 2-1.5-5.
(23) "Final acute value" or "FAV" means:
(A) a calculated estimate of the concentration of a test material such that ninety-five percent (95%) of the genera (with which acceptable acute toxicity tests have been conducted on the material) have higher genus mean acute values (GMAVs); or
(B) the species mean acute value (SMAV) of an important or critical species, if the SMAV is lower

than the calculated estimate.
(24) "Governmental entity" means the state or a political subdivision.
(25) "Great Lakes" means, in Indiana, the following:
(A) Lake Erie.
(B) Lake Michigan.
(26) "Great Lakes states" means the following:
(A) Illinois.
(B) Indiana.
(C) Michigan.
(D) Minnesota.
(E) New York.
(F) Ohio.
(G) Pennsylvania.
(H) Wisconsin.
(27) "Great Lakes system" means all the:
(A) streams;
(B) rivers;
(C) lakes; and
(D) other surface waters;
of the state within the drainage basins of the Great Lakes within Indiana.
(28) "High quality water" or "HQW" means a waterbody, including an ONRW or OSRW, in which, on a pollutant by pollutant basis, the quality of the surface water exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water. The term includes any waterbody for which the pollutant has not been detected in:
(A) the water column; or
(B) nontransient aquatic organisms;
at levels that would indicate that a water quality criterion or value is not being met.
(29) "Indirect discharger" means a nondomestic discharger introducing pollutants into a POTW.
(30) "Legislative body" means any of the following:
(A) For a county not subject to IC 36-2-3.5 or IC 36-3-1, a board of county commissioners.
(B) For a county subject to IC 36-2-3.5, a county council.
(C) For a consolidated city or a county having a consolidated city, a city council.
(D) For a city other than a consolidated city, a common council.
(E) For a town, a town council.
(F) For a township, a township board.
(31) "Loading Capacity" means the amount of loading that can be allowed to a water body or segment under critical low flow conditions while protecting existing conditions and assuring that the new or increased loading does not cause or contribute to a violation of numeric or narrative water quality standards.
(31) "Mixing zone", for the purposes of this rule, means an area contiguous to a discharge where:
(A) the discharged wastewater mixes with the receiving water or waters; and
(B) numeric water quality criteria or values may be exceeded.
Where the quality of the effluent is lower than that of the receiving water, it may not be possible to attain within the mixing zone all designated uses attained outside the zone.
(32) "National Pollutant Discharge Elimination System" or "NPDES" means the national program for:
(A) issuing;
(B) modifying;
(C) revoking and reissuing;
(D) terminating;
(E) denying;
(F) monitoring; and
(G) enforcing;
permits for the discharge of pollutants from point sources and imposing and enforcing pretreatment requirements by the U. S. EPA or an authorized state under Sections 307, 318, 402, and 405 of the CWA. The term includes a state program approved by the U. S. EPA under 40 CFR 123.
(33) "New Great Lakes discharger" means any:

(A) building;
(B) structure;
(C) facility; or
(D) installation;
the construction of which commenced after March 23, 1997, and from which there is or may be a discharge of a pollutant to the Great Lakes system.
(34) "Open waters of Lake Michigan" means the following:
(A) The surface waters within Lake Michigan lakeward from a line drawn across the mouth of tributaries to the lake, including all surface waters enclosed by constructed breakwaters.
(B) For the Indiana Harbor Ship Canal, the boundary of the open waters of Lake Michigan is delineated by a line drawn across the mouth of the harbor from the East Breakwater Light (1995 United States Coast Guard Light List No. 19675) to the northernmost point of the shore line along the west side of the harbor.
(35) "Outstanding national resource water" or "ONRW" means a water designated as such by the general assembly after recommendations by the board and the environmental quality service council under IC 13-18-3-2(o) and IC 13-18-3-2(p). The designation must describe the quality of the ONRW to serve as the benchmark of the water quality that shall be maintained and protected. Waters that may be considered for designation as ONRWs include waterbodies that are recognized as any of the following:
(A) Important because of protection through official action, such as any of the following:
(i) Federal or state law.
(ii) Presidential or secretarial action.
(iii) International treaty.
(iv) Interstate compact.
(B) Having:
(i) exceptional:
(AA) recreational; or
(BB) ecological;
significance; or
(ii) other special:
(AA) environmental;
(BB) recreational; or
(CC) ecological;
attributes.
(C) Waters with respect to which designation as an ONRW is reasonably necessary for protection of other waterbodies designated as ONRWs.
(36) "Outstanding state resource water" or "OSRW" means any water designated as such by the board regardless of when the designation occurred or occurs. Waters that may be considered for designation as OSRWs include waterbodies that have unique or special:
(A) ecological;
(B) recreational; or
(C) aesthetic;
significance.
(37) "Parameter" means a quantitative or characteristic element that describes:
(A) physical;
(B) chemical; or
(C) biological;
conditions of water.
(38) "Permit" means:
(A) a permit;
(B) a license;
(C) a registration;
(D) a certificate; or
(E) any other type of authorization required before construction or operation;
that may be issued by the commissioner under pollution control laws or environmental management laws.
(39) "Permittee" means the holder of a permit.
(40) "Person" means any of the following:

(A) An individual.
(B) A partnership.
(C) A copartnership.
(D) A firm.
(E) A company.
(F) A corporation.
(G) An association.
(H) A joint stock company.
(I) A trust.
(J) An estate.
(K) A municipal corporation.
(L) A city.
(M) A school city.
(N) A town.
(O) A school town.
(P) A school district.
(Q) A school corporation.
(R) A county.
(S) Any consolidated unit of government.
(T) A political subdivision.
(U) A state agency.
(V) A contractor.
(W) Any other legal entity.
(41) "Point source" means any discernible, confined, and discrete conveyance, including, but not limited to, any of the following from which pollutants are or may be discharged:
(A) A pipe.
(B) A ditch.
(C) A channel.
(D) A tunnel.
(E) A conduit.
(F) A well.
(G) A discrete fissure.
(H) A container.
(I) Rolling stock.
(J) A concentrated animal feeding operation.
(K) A landfill leachate collection system.
(L) A vessel.
(M) Any other floating craft.
The term does not include return flows from irrigated agriculture or agricultural storm runoff. See 327 IAC 5-2-4 for other exclusions.
(42) "Pollutant" means any of the following when discharged into water:
(A) Dredged spoil.
(B) Solid waste.
(C) Incinerator residue.
(D) Filter backwash.
(E) Sewage.
(F) Garbage.
(G) Sewage sludge.
(H) Munitions.
(I) Chemical wastes.
(J) Biological materials.
(K) Radioactive materials.
(L) Heat.
(M) Wrecked or discarded equipment.
(N) Rock.
(O) Sand.

(P) Cellar dirt.
(Q) Industrial, municipal, or agricultural waste.
(43) "Pollutant of concern" means a pollutant that is reasonably expected to be present in~~:~~
~~(A)~~ a discharge based on the source and nature of the discharge. ~~; and~~
~~(B) the receiving water in sufficient amounts to have a potentially detrimental effect on the designated or existing uses of the receiving water.~~
(44) "Pollution prevention" means the term as defined by the U. S. EPA under the following:
(A) The federal Pollution Prevention Act, 42 U.S.C. 13101 et seq.
(B) The U. S. EPA pollution prevention policy statement (June 15, 1993).
(45) "Privately owned treatment works" means any device or system, including recycling and reclamation, used in the treatment of:
(A) municipal sewage; or
(B) industrial wastes;
that is as not a POTW.
(46) "Publicly owned treatment works" or "POTW" means any device or system, including recycling and reclamation, used in the treatment of:
(A) municipal sewage; or
(B) industrial wastes;
that is owned by a state or municipality. The term includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.
(47) "Reference Water Quality (RWQ)" means a characterization of level of the pollutant of concern in a water segment that serves as a fixed benchmark for measuring future cumulative degradation of that water segment. RWQ shall be established by the first applicant after October 15, 2008 for a new or increased loading under these antidegradation implementation procedures. When calculating RWQ, the discharger shall account for the levels of pollutants already permitted to be discharged by all upstream dischargers at maximum design flow.
(47) "RCRA" means the Resource Conservation and Recovery Act, 42 U.S.C. 6901 through 42 U.S.C. 6992k, as amended on October 19, 1996.
(48) "Recommencing discharger" means a source that begins to discharge after having ceased operations.
(49) "Representative background concentration" means a value based upon a data set and determined according to 327 IAC 5-2-11.4(a)(8).
(50) "Risk" means the probability that a pollutant of concern, when released into the environment, will cause an adverse effect in exposed humans or other living organisms.
(51) "Sanitary sewer" means a sewer, to which storm, surface, and ground waters are not intentionally allowed to enter, that conveys liquid and water-carried wastes from the following:
(A) Residences.
(B) Commercial buildings.
(C) Industrial plants.
(D) Institutions.
(52) "Sanitary wastewater" means the liquid and water-carried waste from:
(A) residences;
(B) commercial buildings;
(C) industrial plants;
(D) institutions; and
(E) other places of human occupancy;
that is transported by sewers and is primarily composed of human and household waste. Sanitary wastewater, as received by a POTW, may contain a component of industrial waste.
(53) "Segment" means a section of water that is bound, at a minimum, by significant existing sources and confluences with other significant water bodies. The use of this term is intended to provide a framework for tracking changes in loading capacity. An evaluation of the reference water quality (RWQ) must be made for each segment receiving a new or increased discharge.
(53) "Sewage" means all refuse, human excreta, garbage, waste, or waste products or any combination of these substances that:
(A) is potentially capable of contaminating the environment; and
(B) may be collected and carried off in a:

(i) pipe;
(ii) ditch; or
(iii) channel.
(54) "Sewer" means a pipe or conduit that carries wastewater or drainage water.
(55) "Significant lowering of water quality" means:
(A) there is a new or increased loading of a pollutant of concern to a surface water of the state that results in an increase in the ambient concentration of the pollutant of concern and the increased loading is greater than a de minimis lowering of water quality; and
(B) none of the provisions of section 4 of this rule applies.
(56) "Stream design flow" means the stream flow that represents critical conditions, upstream from the source as defined in 327 IAC 5-2-11.4(b)(3), for protection of:
(A) aquatic life;
(B) human health; or
(C) wildlife.
(57) "Threatened or endangered species" means the following:
(A) Species listed under Section 4 of the ESA*.
(B) Species listed as state threatened or endangered by the Indiana department of natural resources under IC 14-22-34.
(C) Species designated as state threatened or endangered species in the January 22, 1997, database for endangered, threatened, rare, and special concern species maintained by the Indiana natural heritage data center, division of nature preserves, department of natural resources**.
(58) "Tier I criteria" means numeric criteria derived by use of the Tier I procedures in 327 IAC 2-1-8.2 through 327 IAC 2-1-8.7 and 327 IAC 2-1.5-11 through 327 IAC 2-1.5-16 that either have been adopted as numeric criteria into a water quality standard or are used to implement narrative water quality criteria.
(59) "Tier II values" means numerical values derived by use of the Tier II procedures in 327 IAC 2-1.5-12 through 327 IAC 2-1.5-16 that are used to implement narrative water quality criteria.
(60) "Total loading capacity" expressed as a mass loading rate for the waterbody in the area where the water quality is proposed to be lowered means the product of the applicable water quality criterion multiplied by the~~:~~
~~(A)~~ sum of the existing effluent flow, the proposed new or increased effluent flow, and the stream design flow used in the calculation of the WQBELs.~~; or~~
~~(B) alternate mixing zone volume approved for a discharge.~~
(61) "Toxic substances" means substances that are or may become harmful to:
(A) aquatic life;
(B) humans;
(C) other animals;
(D) plants; or
(E) food chains;
when present in sufficient concentrations or combinations. The term includes those substances identified as toxic under Section 307(a)(1) of the CWA.
(62) "Tributaries of the Great Lakes system" means all surface waters of the Great Lakes system that are not open waters of Lake Michigan or connecting channels.
(63) "Tributary of an OSRW" means the upstream segments of a receiving waterbody when some or all of the downstream segments of the receiving waterbody are designated as an OSRW.
(64) "Unit of government" means a:
(A) county;
(B) municipality;
(C) township; or
(D) state.
(65) "Unused loading capacity" means the amount of the total loading capacity not utilized by point source and nonpoint source discharges. The unused loading capacity is established at the time the request to lower water quality is considered. The used loading capacity shall be based upon the representative background concentration determined by the department according to 327 IAC 5-2-11.4(a)(8) at the time of each request to lower water quality.
(66) "Variance" means a deviation from a:
(A) water quality criterion or value; or

(B) narrative water quality standard;
granted by the commissioner under 327 IAC 2-1-8.8 or 327 IAC 2-1.5-17.
(67) "Wastewater" means the following:
(A) Human excreta, water, scum, sludge, and sewage from:
(i) sewage disposal systems;
(ii) retained contents of wastewater holding tanks; or
(iii) portable sanitary units.
(B) Grease, fats, and retained wastes from grease traps or interceptors.
(C) Wastes carried in liquid from ordinary living processes.
(D) Incidental or accidental seepage from sewage disposal systems.
(68) "Waters" or "waters of the state" has the meaning set forth in IC 13-11-2-265.
(69) "Watershed" has the meaning set forth in IC 14-8-2-310.
(70) Water use designations" means a use of the waters of the state as established by this article, including the following:
(A) Industrial water supply.
(B) Agricultural use.
(C) Public water supply.
(D) Full body contact.
(E) Aquatic life.
(F) Limited use.
(G) Exceptional use.
(71) "Whole effluent toxicity" or "WET" means the aggregate toxic effect of an effluent measured directly by a toxicity test.
*Section 4 of the ESA is incorporated by reference and may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Quality, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana 46206.
**The database for endangered, threatened, rare, and special concern species is incorporated by reference and may be obtained from the Indiana Department of Environmental Management, Office of Water Quality, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana 46206.
(Water Pollution Control Board; 327 IAC 2-1.3-2)

327 IAC 2-1.3-3 Antidegradation standards
Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18
Affected: IC 13-18-3-2; IC 13-18-4
Sec. 3. (a) The Tier 1 antidegradation standard is as follows:
(1) For all surface waters of the state, existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. To ensure this standard is met, the commissioner shall do the following:
(A) Ensure that the level of water quality necessary to protect existing uses is maintained. In order to achieve this requirement, water quality standards use designations must include all existing uses.
(B) Establish controls as necessary on nonpoint sources, where authority exists, and point sources of pollutants of concern to ensure the following:
(i) The criteria or values, or both, applicable to the designated use are achieved in the water.
(ii) Any designated use of a downstream water is maintained and protected.
(2) Where designated uses of waters are impaired, there shall be no additional lowering of the water quality with respect to the pollutants of concern that are causing the impairment. To ensure this standard is met, the commissioner shall not allow a lowering of water quality for the pollutants of concern that prevent the attainment of the designated use or the water quality criterion or value.
(b) The Tier 2 antidegradation standard for HQWs that are not ONRWs or OSRWs is as follows:
(1) The surface waters of the state where existing quality for any parameter is better than the water quality criteria or value for that parameter established in 327 IAC 2-1-6 or 327 IAC 2-1.5-8 shall be considered high quality for that parameter consistent with the definition of HQW.

(2) This high quality of water shall be maintained and protected unless the commissioner finds, after full satisfaction of intergovernmental coordination and public participation and the provisions in section 6 of this rule, that allowing a significant lowering of water quality is necessary to accommodate important economic or social development in the area in which the surface waters are located. In allowing a significant lowering of water quality, the commissioner shall assure the following:
(A) Water quality adequate to fully protect designated uses is maintained.
(B) The highest statutory and regulatory requirements for all new and existing point sources are applied.
(C) Where authority exists, all cost-effective and reasonable BMPs for nonpoint source control are employed.
(c) The Tier 2.9 antidegradation standard for HQWs that are OSRWs is as follows:
(1) For OSRWs inside the Great Lakes basin, as well as the portions of waters upstream of an OSRW that impact the water quality of the OSRW inside the Great Lakes basin, no new or increased loading of a BCC shall be allowed that causes a significant lowering of water quality of the OSRW.
(2) For BCCs in OSRWs outside the Great Lakes basin, as well as the portions of waters upstream of an OSRW that impact the water quality of the OSRW outside the Great Lakes basin, these waters shall be maintained and protected in their present high quality unless the commissioner finds, after full satisfaction of intergovernmental coordination and public participation and the provisions in sections 6 and 8 of this rule, that allowing a significant lowering of water quality is necessary to accommodate important economic or social development in the area in which the surface waters are located. In allowing a significant lowering of water quality, the commissioner shall assure the following:
(A) Water quality adequate to fully protect designated uses is maintained.
(B) The highest statutory and regulatory requirements for all new and existing point sources are applied.
(C) Where authority exists, all cost-effective and reasonable BMPs for nonpoint source control are employed.
(3) For non-BCCs in OSRWs, as well as the portions of waters upstream of an OSRW that impact the water quality of the OSRW, these waters shall be maintained and protected in their present high quality unless the commissioner finds, after full satisfaction of intergovernmental coordination and public participation and the provisions in sections 6 and 8 of this rule, that allowing a significant lowering of water quality is necessary to accommodate important economic or social development in the area in which the surface waters are located. In allowing a significant lowering of water quality, the commissioner shall assure the following:
(A) Water quality adequate to fully protect designated uses is maintained.
(B) The highest statutory and regulatory requirements for all new and existing point sources are applied.
(C) Where authority exists, all cost-effective and reasonable BMPs for nonpoint source control are employed.
(4) For OSRWs, as well as the portions of waters upstream of an OSRW that impact the water quality of the OSRW, any new or increased loading of a pollutant of concern that results in a significant lowering of water quality for that pollutant of concern shall be prohibited, unless the:
(A) activity causing the increased loading:
(i) results in an overall improvement in water quality in the OSRW; and
(ii) meets the applicable requirements of 327 IAC 2-1-2(1), 327 IAC 2-1-2(2), 327 IAC 2-1.5-4(a), and 327 IAC 2-1.5-4(b); or
(B) person proposing the increased loading implements or funds a water quality improvement project in accordance with IC 13-18-3-2 in the watershed of the OSRW that:
(i) results in an overall improvement in water quality in the OSRW; and
(ii) meets the applicable requirements of 327 IAC 2-1-2(1), 327 IAC 2-1-2(2), 327 IAC 2-1.5-4(a), and 327 IAC 2-1.5-4(b).
(d) The Tier 3 antidegradation standard for HQWs that are ONRWs and their tributaries is that they shall be maintained and protected in their present high quality without degradation except for short-term, temporary discharges as described in section 4(a)(1) of this rule. To ensure this antidegradation standard is met, the following requirements apply:
(1) All deliberate actions that result in a new or increased loading from an existing or new discharger are prohibited.

(2) Discharging to a tributary of an ONRW shall not be allowed if it would cause an increase in the ambient concentration of that pollutant in the ONRW.
(e) Except for ONRWs, any determination made by the commissioner in accordance with Section 316 of the CWA concerning alternative thermal effluent limitations shall be considered to be consistent with the antidegradation standards contained in this section.
(Water Pollution Control Board; 327 IAC 2-1.3-3)

327 IAC 2-1.3-4 Exemptions from the antidegradation demonstration requirements
Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18
Affected: IC 13-11-2-24; IC 13-18-7; IC 13-23-13; IC 13-24-1; IC 13-25-5
Sec. 4. (a) For an ONRW, an exemption from the antidegradation demonstration requirements included in section 6 of this rule shall be allowed only for **new or increased** short-term, temporary, **and limited** ~~**new, or increased**~~ discharges of non-BCCs if the following conditions are met:
(1) All reasonable methods for minimizing or preventing the new or increased loading have been taken.
(2) The discharge will last less than twelve (12) months or three hundred sixty-five (365) days.
(3) A proposed new or existing discharger applies for and receives authorization from the commissioner.
(4) The discharge will result only in a short-term, temporary (not to exceed twelve (12) months) lowering of water quality.
(5) The discharge, by itself and along with additional discharges to the ORNW exempted under this subsection, will not result in more than a 2.5% change in the ambient concentrations of the pollutants discharged.
(6) The lowering of water quality will not put at risk achieving applicable water quality standards during the proposed activity or have a potential for any residual long-term influences on existing uses.
(7) The discharge complies with the antidegradation standard outlined in section 3(d) of this rule.
(b) For a HQW except an ONRW, a new or increased loading of a pollutant of concern resulting from the following is exempt from the antidegradation demonstration requirements included in section 6 of this rule:
(1) A new or increased loading of a non-BCC that is a de minimis lowering of water quality determined according to the following:
(A) For a HQW that is not an ONRW or OSRW, the following apply:
(i) If the following conditions are met, then the proposed lowering of water quality is de minimis and a Tier 2 review is not required:

> **(AA) The proposed discharge will result in a reduction of less than 5 percent of the facility loading capacity (FLC) for any pollutant as a result of any single discharge, and**
>
> **(BB) The proposed discharge will result in a cumulative reduction of less than 10 percent of the segment loading capacity (SLC) for any pollutant as a result of all discharges combined after reference water quality (RWQ) was determined; and**

(ii) Individual loading shall be assessed by calculating the percentage reduction in facility loading capacity (FLC) as a result of a new or increased discharge.

In order to ensure that the proposed discharge will result in a reduction of less than 5 percent of the facility loading capacity, dischargers seeking to use a de minimis exemption must demonstrate that:

> $FLC_2 \geq 0.95\ FLC_1$
>
> **Where:**
>
> $FLC_1 = [(WQC \cdot Qs) - (Cs \cdot Qs)] \cdot CF$

$FLC_2 = [(WQC \cdot Qs) - (Cs \cdot Qs) - (Ce \cdot Qe)] \cdot CF$

WQC = water quality criterion (represented as a concentration, e.g., mg/L)

Qs = existing stream flow at critical flow conditions (7Q10) measured at a point immediately downstream of the facility seeking the new or increased loading. If existing flow data does not exist or is outdated, the discharger is responsible to provide stream modeling data necessary to establish Qs. Qs does not include proposed effluent flows.

Cs = existing pollutant concentration in stream at critical flow conditions. Where upstream dischargers exist, Cs shall be adjusted to include the levels of pollutants already permitted to be discharged at maximum design flow.

Qe = proposed increase in effluent flow.

Ce = pollutant concentration in proposed effluent.

CF = conversion factor to convert a pollutant mass loading into the desired units. (For example, a CF of 5.4 to derive a load in "lbs/day" is appropriate when the WQC is represented in mg/L and flow is represented in cfs [(mg/L) · (cfs) · 5.4) = (lbs/day)]).

(iii) Cumulative loading shall be assessed by calculating the percentage reduction in segment loading capacity (SLC) as a result of all discharges combined after reference water quality (RWQ) was determined.

In order to ensure that the proposed discharge will result in a cumulative reduction of less than 10 percent of the segment loading capacity, dischargers seeking to use a de minimis exemption must demonstrate that:

$SLC \geq 0.9\ SLC_{REF}$

Where:

$SLC = [(WQC \cdot Q_{SEG}) - (C_{SEG} \cdot Q_{SEG})] \cdot CF$

$SLC_{REF} = [(WQC \cdot Q_{SEG}) - (RWQ \cdot Q_{SEG})] \cdot CF$

WQC = water quality criterion (represented as a concentration, e.g., mg/L)

Q_{SEG} = the critical stream flow (7Q10) measured at the most downstream extent of the water segment.

C_{SEG} = the existing pollutant concentration measured at the most downstream extent of the water segment. C_{SEG} shall be adjusted to account for the levels of pollutants already permitted to be discharged by all upstream dischargers at maximum design flow.

RWQ = reference water quality established at the time of the first application made after October 15, 2008 for a new or increased loading under these antidegradation implementation procedures (represented as a concentration, e.g., mg/L)

~~(i) Calculation considerations according to the following:~~
~~(AA) The proposed net increase in the loading of a pollutant of concern is less than or equal to ten percent (10%) of the existing unused loading capacity determined at the time of the specific proposed new or increased loading of the pollutant of concern. The existing unused loading capacity shall be established at the time of each request for a new or increased loading of a~~

~~pollutant of concern.~~
~~(BB) For discharges to waters outside of the Great Lakes basin of a non-BCC toxic substance, as identified under Section 307(a) of the CWA, that does not have a water quality criterion identified in 327 IAC 2-1-6, Table 1 or 2 or sufficient data to calculate a water quality criterion according to Method 1 in 327 IAC 2-1-8.2 and Method 1 in 327 IAC 2-1-8.3, the de minimis shall be based on the value calculated according to 327 IAC 2-1-8.1, Method 2 of 327 IAC 2-1-8.2, Methods 2 and 3 of 327 IAC 2-1-8.3, or 327 IAC 2-1-8.4 through 327 IAC 2-1-8.6, and the proposed net increase in the loading shall be less than or equal to twenty percent (20%) of the existing unused loading capacity.~~
~~(CC) For discharges to waters inside of the Great Lakes basin of a non-BCC toxic substance, as identified under Section 307(a) of the CWA, that does not have a water quality criterion identified in 327 IAC 2-1.5-8, Table 8-1, 8-2, 8-3, or 8-4 or sufficient data to calculate a Tier 1 criterion according to 327 IAC 2-1.5-11, the de minimis shall be based on the Tier 2 value calculated according to 327 IAC 2-1.5-12 through 327 IAC 2-1.5-16, and the proposed net increase in the loading shall be less than or equal to twenty percent (20%) of the existing unused loading capacity.~~
~~(DD) The benchmark unused loading capacity is equal to seventy-five percent (75%) of the unused loading capacity established at the time of the permit issuance for the initial increase in the loading of a pollutant of concern.~~
~~(EE) For every request after the time of the permit issuance for the initial increase in the loading of a pollutant of concern, the unused loading capacity remaining after the net increase in the loading of a pollutant of concern must be greater than or equal to the~~ benchmark unused loading capacity.
(ii) For heat, the following conditions must be satisfied:
(AA) The new or increased discharge will not result in an increase in temperature in a stream or an inland lake, outside of the designated mixing zone, where applicable.
(BB) The new or increased discharge will not result in an increase in waste heat of an amount in a stream greater than the amount determined by calculating the number of British thermal units (BTUs) required to raise the temperature of the stream design flow of the receiving stream by one (1) degree Fahrenheit.
(B) For a HQW that is an OSRW, **or a tributary of an OSRW if the loading may result in a lowering of water quality in the downstream OSRW, the proposed lowering of water quality is de minimis and a Tier 2 review is not required if:** ~~the following apply:~~
(i) The proposed discharge will not exceed the reference water quality (RWQ) for any pollutant in the receiving water; or
~~Calculation considerations according to the following:~~
~~(AA) The proposed net increase in the loading of a pollutant of concern is less than or equal to one percent (1%) of the existing unused loading capacity determined at the time of the specific proposed new or increased loading of the pollutant of concern. The existing unused loading capacity shall be established at the time of each request for a new or increased loading of a pollutant of concern.~~
~~(BB) For discharges to waters outside of the Great Lakes basin of a non-BCC toxic substance, as identified under Section 307(a) of the CWA, that does not have a water quality criterion identified in 327 IAC 2-1-6, Table 1 or 2 or sufficient data to calculate a water quality criterion according to Method 1 in 327 IAC 2-1-8.2 and Method 1 in 327 IAC 2-1-8.3, the de minimis shall be based on the value calculated according to 327 IAC 2-1-8.1, Method 2 of 327 IAC 2-1-8.2, Methods 2 and 3 of 327 IAC 2-1-8.3, or 327 IAC 2-1-8.4 through 327 IAC 2-1-8.6, and the proposed net increase in the loading shall be less than or equal to two percent (2%) of the existing unused loading capacity.~~
~~(CC) For discharges to waters inside of the Great Lakes basin of a non-BCC toxic substance, as identified under Section 307(a) of the CWA, that does not have a water quality criterion identified in 327 IAC 2-1.5-8, Table 8-1, 8-2, 8-3, or 8-4 or sufficient data to calculate a Tier 1 criterion according to 327 IAC 2-1.5-11, the de minimis shall be based on the Tier 2 value calculated according to 327 IAC 2-1.5-12 through 327 IAC 2-1.5-16, and the proposed net increase in the loading shall be less than or equal to two percent (2%) of the existing unused loading capacity.~~
~~(DD) The benchmark unused loading capacity is equal to ninety-seven and five-tenths percent (97.5%) of the unused loading capacity established at the time of the permit issuance for the initial increase in the loading of a pollutant of concern.~~

~~**(EE) For every request after the time of the permit issuance for the initial increase in the loading of a pollutant of concern, the unused loading capacity remaining after the net increase in the loading of a pollutant of concern must be greater than or equal to the benchmark unused loading capacity.**~~
(ii) Relative to temperature, the new or increased discharge will not result in an increase in temperature:
(AA) in a stream or an inland lake, outside of the designated mixing zone, where applicable; or
(BB) in Lake Michigan, as allowed in 327 IAC 2-1.5-8(c)(4)(D)(iv), at the edge of a one thousand (1,000) foot arc inscribed from a fixed point adjacent to the discharge.
(iii) Relative to heat, the new or increased discharge will not result in an increase in waste heat in an amount:
(AA) in a stream greater than the amount determined by calculating the number of BTUs required to raise the temperature of the stream design flow of the receiving stream by one (1) degree Fahrenheit; or
(BB) in Lake Michigan, greater than five-tenths (0.5) billion BTUs per hour.
(2) The following exemptions from the antidegradation demonstration requirements included in section 6 of this rule do not require the submission of information beyond what is required to comply with the discharger's existing applicable permit:
(A) A change in loading of a pollutant of concern within the existing capacity and processes that are covered by an existing applicable permit, including, but not limited to, the following:
(i) Normal operational variability, including, but not limited to, intermittent increased loadings due to wet weather conditions.
(ii) A change in intake water pollutants not caused by the discharger.
(iii) Increasing the production hours of the facility, for example, adding a second shift.
(iv) Increasing the rate of production.
(v) A change at an internal outfall that does not directly discharge to a surface water of the state.
(vi) A change in the applicable effluent limitation guideline based on a change in production.
(B) A bypass not prohibited by 327 IAC 5-2-8(11).
(C) A new limit for a pollutant of concern for an existing permitted discharger that will not allow an increase in either the mass or concentration of the pollutant of concern discharged, including a new limit that is a result of the following:
(i) New or improved:
(AA) monitoring data; or
(BB) analytical methods.
(ii) New or modified:
(AA) water quality criteria or values; or
(BB) effluent limitation guidelines, pretreatment standards, or control requirements for POTWs.
(D) A new or increased loading of a pollutant of concern **limited in an existing NPDES permit,** at an outfall discharging to a water of the state due to increasing the sewered area, connection of new sewers and users, or acceptance of trucked-in wastes, such as septage and holding tank wastes, by a POTW, provided that there is no:
(i) change in the outfall or in the receiving water;
(ii) increase in the existing NPDES permit limits;
(iii) increase beyond the treatment capacity of the facility; or
(iv) significant change expected in the characteristics of the wastewater discharged**; or**
(v) increased loading of BCCs from nondomestic wastes.
(3) The following exemptions from the antidegradation demonstration requirements included in section 6 of this rule require the submission of information that sufficiently demonstrates that the proposed discharge satisfies the exemption description along with the application for an NPDES permit:
(A) A new or increased loading of a pollutant of concern when the:
(i) facility withdraws intake water containing the pollutant of concern from the same body of water, as determined under 327 IAC 5-2-11.5(b)(4)(B)(i); and
(ii) new or increased loading of the pollutant of concern is due solely to the presence of the pollutant of concern in the intake.
(B) A change in loading of a pollutant of concern due solely to implementation of enforceable:

(i) municipal or industrial controls on wet weather flows, including combined sewer overflows; or
(ii) an individual NPDES permit for storm water associated with industrial activity;
when there is no net increase in the quantity and concentration of the pollutant of concern discharged to the same ten (10) digit watershed and all reasonable methods for minimizing or preventing the new or increased loading have been taken.
(C) A new or increased loading of a pollutant of concern for **new or increased** short-term, temporary, **and limited** ~~**new, or increased**~~ discharges if the following conditions are met:
(i) All reasonable methods for minimizing or preventing the new or increased loading have been taken.
(ii) The discharge will last less than twelve (12) months or three hundred sixty-five (365) days.
(iii) A proposed new or existing discharger applies for and receives authorization from the commissioner.
(iv) The discharge will result only in a short-term, temporary (not to exceed twelve (12) months) lowering of water quality.
(v) The discharge, by itself and along with additional discharges to the waterbody exempted under this subsection, will not result in more than a 2.5% change in the ambient concentrations of the pollutants discharged.
(vi) The lowering of water quality will not put at risk achieving applicable water quality standards during the proposed activity or have a potential for any residual long-term influences on existing uses.
(vii) The discharge complies with the antidegradation standards outlined in section 3 of this rule.
(D) When all reasonable methods for minimizing or preventing the new or increased loading have been taken, a new or increased loading of a pollutant of concern due to:
(i) a response action under CERCLA, as defined in IC 13-11-2-24, as amended;
(ii) a corrective action under RCRA, as amended; or
(iii) an action utilizing federal or state authorities with regulations to alleviate a release into the environment of hazardous substances, pollutants, or contaminants that may pose an imminent or existing and substantial danger to public health or welfare, including one (1) or more of the following:
(AA) An underground storage tank (UST) corrective action under IC 13-23-13.
(BB) A remediation of petroleum releases under IC 13-24-1.
(CC) A voluntary remediation under IC 13-25-5.
(DD) An abatement or correction of any polluted condition under IC 13-18-7.
(E) When all reasonable methods for minimizing or preventing the new or increased loading have been taken, a new or increased discharge of noncontact cooling water that will not do **any of** the following:
(i) Increase the temperature of the receiving water or waters outside of the designated mixing zone, where applicable.
(ii) Increase the loading of BCCs.
(iii) Require numeric water quality-based effluent limitations (WQBELs) for toxic substances or WET as determined under 327 IAC 5-2-11.5.
(F) A new or increased loading of an approved non-BCC water treatment additive.
(4) The following exemptions from the antidegradation demonstration requirements included in section 6 of this rule require the submission of an exemption justification according to section 5 of this rule:
(A) A change in loading of a pollutant of concern **that is not a BCC to a waterbody that is not an OSRW**:
(i) where there is a voluntary, simultaneous, enforceable decrease in the actual loading of the pollutant of concern from sources contributing to the same ten (10) digit watershed; and
(ii) with the result that there is a net decrease in the loading of the pollutant of concern to the same ten (10) digit watershed**; and**
(iii) where the applicant demonstrates that the increase in loading, combined with the simultaneous decrease in the loading of the pollutant from the other sources in the watershed, will not cause a decline in the water quality of the receiving waterbody.
~~**(B) A new or increased loading of a pollutant of concern if the discharger demonstrates the following:**~~

~~(i) The new or increased loading is necessary to accomplish a reduction in the loading of another pollutant of concern.~~
~~(ii) All reasonable methods for minimizing or preventing the new or increased loading have been taken.~~
~~(iii) There will be an improvement in water quality in the receiving water or waters. An improvement~~
~~in water quality will occur if the impact from the new or increased loading of the pollutant of concern is:~~
~~(AA) less bioaccumulative; and~~
~~(BB) less toxic than the reduced pollutant or pollutant parameter.~~
~~In making these determinations regarding bioaccumulation, the BAF methodology under 327 IAC 2-1.5-13 will be used.~~
~~(C) A new or increased loading of a pollutant of concern that demonstrates:~~
~~(i) the new or increased loading is necessary to accomplish a reduction in the release of one (1) or more air pollutants;~~
~~(ii) all reasonable methods for minimizing or preventing the new or increased loading have been taken; and~~
~~(iii) there will be an environmental improvement, which will occur when the applicant demonstrates~~
~~that the reduction in the loading of the air pollutant:~~
~~(AA) is necessary to meet a state or federal air quality standard or emission requirement; or~~
~~(BB) will substantially reduce human exposure to hazardous air pollutants or other air pollutants that are subject to state or federal air quality standards.~~
~~(D) A new or increased loading of a pollutant of concern from a sanitary wastewater treatment plant constructed or expanded to alleviate a public health concern, for example, a connection of existing residences currently on septic systems when all reasonable methods for minimizing or preventing the new or increased loading have been taken.~~
(Water Pollution Control Board; 327 IAC 2-1.3-4)

327 IAC 2-1.3-5 Exemption justification
Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18
Affected: IC 13-23-13; IC 13-24-1; IC 13-25-5
Sec. 5. (a) An exemption justification is required as follows:
(1) Any existing or proposed discharger claiming an exemption for a new or increased discharge that may qualify as an exemption under section 4(b)(4)of this rule must submit an exemption justification for consideration by the commissioner.
(2) The exemption justification shall be submitted concurrently with the application for a new, renewed, or modified NPDES permit.
(b) Upon receipt of an exemption justification, the commissioner shall provide notice and request comment according to 327 IAC 5-2-11.2. The commissioner shall hold a public meeting on the exemption justification in accordance with 327 IAC 5-2-11.2 if:
(1) the proposed discharge is to an OSRW **<u>or to a tributary of an OSRW</u>**; or
(2) a public meeting is requested by at least twenty-five (25) persons living or working within the same ten (10) digit watershed or within fifteen (15) miles of the proposed discharge.
The commissioner may hold a public meeting in accordance 327 IAC 5-2-11.2 if the commissioner otherwise deems such a meeting necessary or appropriate.
(c) An exemption justification shall include the following:
(1) An identification of all pollutants of concern for which the exemption justification is required.
(2) An estimate of the concentration of all pollutants of concern proposed to be discharged.
(3) An explanation of how the proposed new or increased discharge of pollutants of concern qualifies for an exemption that includes:
(A) the provision or provisions listed in section 4(b)(4) of this rule that applies to the proposed new or increased discharge;
(B) substantiation that the proposed new or increased discharge qualifies for the provision identified in clause (A); and
(C) a demonstration that the:

(i) proposed action will minimize the proposed lowering of water quality; and
(ii) discharger will use appropriate cost-effective pollution prevention and treatment techniques.
(d) The commissioner shall review the submitted information and determine whether the:
(1) information provided in the exemption justification is administratively complete; and
(2) proposed new or increased discharge qualifies for the exemption.
If the commissioner determines that the application is complete and the proposed new or increased discharge qualifies for the exemption, the commissioner shall public notice the exemption justification determination as required under 327 IAC 5-2-11.2.
(Water Pollution Control Board; 327 IAC 2-1.3-5)

327 IAC 2-1.3-6 Antidegradation demonstration application
Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18
Affected: IC 13-23-13; IC 13-24-1; IC 13-25-5
Sec. 6. (a) Any existing or proposed discharger seeking a new or increased discharge that constitutes a significant lowering of water quality that is not exempt under section 4~~(b)(4)~~ of this rule must submit for consideration by the commissioner an antidegradation demonstration application **consistent with the requirements in this section** that justifies that the proposed new or increased discharge is necessary **to accommodate important social or economic development** ~~for providing a social or economic benefit~~ in the area of the discharge.
(b) An antidegradation demonstration application shall include the following information:
(1) The pollutants of concern for which the antidegradation application is required.
(2) The estimated mass and concentration of all pollutants of concern proposed to be discharged.
(3) The receiving water or waters that would be affected by the new or increased discharge.
(4) The physical, biological, and chemical conditions of the receiving water or waters as determined by:
(A) available information; or
(B) additional information, including the results of additional water quality:
(i) chemical;
(ii) biological; or
(iii) both items (i) and (ii);
analysis, if requested by the department.
(5) The estimated magnitude of the proposed lowering of water quality.
(6) The anticipated impact of the proposed lowering of water quality on aquatic life and wildlife, considering the following:
(A) Threatened and endangered species.
(B) Important commercial or recreational sport fish species.
(C) Other individual species.
(D) The overall aquatic community structure and function.
(7) The anticipated impact of the proposed lowering of water quality considering the following:
(A) Human health.
(B) The overall quality and value of the water resource.
(8) The degree to which water quality may be lowered in waters located within the following:
(A) National, state, or local parks.
(B) Preserves or wildlife areas.
(C) OSRWs or ONRWs.
(9) The effects of lower water quality on the social and economic value of the receiving water or waters considering the following:
(A) Recreation, tourism, and other commercial activities.
(B) Aesthetics.
(C) Other use and enjoyment by humans.
(10) The extent to which the resources or characteristics adversely impacted by the lowered water quality are unique or rare within the locality or state.
(11) The cost of the water pollution controls associated with the proposed activity.
(12) The availability, reliability, cost-effectiveness, and technical feasibility of:
(A) nondegradation;
(B) minimal degradation; or

(C) degradation mitigation techniques or alternatives.
(13) An analysis of the effluent reduction benefits and water quality benefits associated with the degradation mitigation techniques or alternatives required to be assessed under subdivision (12)(C), including the following:
(A) A review of pollution prevention alternatives and techniques that includes the following:
(i) A listing of alternatives and techniques, including new and innovative technologies.
(ii) A description of how the alternatives and techniques available to the applicant would minimize or prevent the proposed significant lowering of water quality.
(iii) The effluent concentrations attainable by employing the alternatives and techniques.
(iv) The costs associated with employing the alternatives and techniques.
(v) An identification of the pollution prevention alternatives and techniques selected to be employed and an explanation of why those selections were made.
(B) An evaluation of the feasibility and costs of connecting to an existing POTW or privately owned treatment works, within the vicinity of the proposed new or increased discharge, that:
(i) will effectively treat the proposed discharge; and
(ii) is willing to accept wastewater from other entities.
(C) For POTWs, if the proposed significant lowering of water quality is a result of a proposed new or increased discharge from one (1) or more indirect dischargers, the analysis shall also include the following:
(i) The requirements of clause (A) shall be completed for the indirect discharger or dischargers as well as for the POTW. The POTW may require the indirect dischargers to prepare this information.
(ii) If one (1) or more of the indirect dischargers proposes or does discharge to a:
(AA) combined sewer; or
(BB) sanitary sewer that is connected to a combined sewer;
all combined sewer overflows (CSOs) between the point of discharge to the sewer and the POTW shall be identified.
(14) The availability, cost-effectiveness, and technical feasibility of central or regional sewage collection and treatment facilities, including long-range plans outlined in:
(A) state or local water quality management planning documents; and
(B) applicable facility planning documents.
(15) The evaluation of the anticipated impact of the proposed lowering of water quality on economic and social factors, including the following:
(A) Creation, expansion, or maintenance of employment.
(B) The unemployment rate.
(C) The median household income.
(D) The number of households below the poverty level.
(E) Community housing needs.
(F) Change in population.
(G) The impact on the community tax base.
(H) Provision of fire departments, schools, infrastructure, and other necessary public services.
(I) Correction of a public health, safety, or environmental problem.
(J) Production of goods and services that protect, enhance, or improve the overall quality of life and related research and development.
(K) The impact on the quality of life for residents in the area.
(L) The impact on the fishing, recreation, and tourism industries.
(M) The impact on threatened and endangered species.
(N) The impact on economic competitiveness.
(O) The value to residents in the area of the activity accommodated by the proposed reduction in loading capacity.
(P) The value to the community of reserving additional loading capacity for future industry, development, tourism, or environmental protection.
(Q) The potential for reduced effectiveness of government or privately sponsored conservation projects that have specifically targeted improved water quality or enhanced recreational opportunities on the proposed receiving waterbody.
(R) Demonstration by the ~~permit applicant~~ **discharger seeking a new or increased discharge that, given the positive and negative social and economic impacts** ~~that the factors~~ identified and

reviewed under clauses (A) through (Q), **allowing the lowering of water quality is necessary to accommodate important economic or social development in the area.** ~~are necessary to accommodate important social or economic development despite the proposed significant lowering of water quality.~~
(S) Inclusion by the applicant of additional factors that may enhance the social or economic importance associated with the proposed discharge, such as an approval that:
(i) recognizes social or economic importance; and
(ii) is given to the applicant by a legislative body or other government officials.
(T) Any other action or recommendation relevant to the antidegradation demonstration made by a:
(i) state;
(ii) county;
(iii) township; or
(iv) municipality;
potentially affected by the proposed discharge.
(U) Any other action or recommendation relevant to the antidegradation demonstration received during the public participation process.
(V) Any other factors that the commissioner:
(i) finds relevant; or
(ii) is required to consider under the CWA.
(c) In determining whether a proposed discharge is necessary to accommodate important economic or social development in the area in which the waters are located under antidegradation standards and implementation procedures, the commissioner:
(1) ~~must~~ **may** ~~**give substantial weight to**~~ **consider** any applicable determinations by governmental entities **regarding individual factors in subsection (b)**; ~~**and**~~
(2) ~~**may rely on consideration of any one (1) or a combination of the**~~ **shall consider the antidegradation demonstration** factors listed in subsections **b(1) through** (b)(15)**;**
(3) shall consider information received from the public pursuant to section 7 of this rule; and
(4) may consider any other information available to the commissioner.
(d) The discharger **shall** ~~**may either:**~~
~~**(1) accept effluent limits for mass and concentration based on the BADCT, when available, as established by the department; or**~~
~~**(2)**~~ include as part of its antidegradation demonstration application a request for the commissioner's review and approval of an alternative treatment technique analysis that includes submission of the following information:
(A) The available alternative or enhanced treatment techniques, including new and innovative technologies.
(B) A review of how the alternative or enhanced treatment techniques available to the applicant would minimize or prevent the proposed significant lowering of water quality.
(C) The effluent concentrations attainable by employing the alternative or enhanced treatment techniques.
(D) The costs associated with employing the alternative or enhanced treatment techniques relative to the cost of treatment necessary to achieve effluent limitations based on the de minimis lowering of water quality.
(E) The alternative or enhanced treatment techniques selected to be employed and an explanation of why those selections were made.
(F) The reliability of the selected treatment alternative or alternatives, including, but not limited to, the possibility of recurring operational and maintenance difficulties that would lead to increased degradation.
(e) Upon the commissioner's approval of an alternative treatment technique analysis, the discharger shall accept effluent limits for mass and concentration based on the alternative treatment techniques analysis.
(Water Pollution Control Board; 327 IAC 2-1.3-6)

327 IAC 2-1.3-7 Commissioner's determination on antidegradation demonstration application
Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18
Affected: IC 13-18-3-14; IC 13-23-13; IC 13-24-1; IC 13-25-5
Sec. 7. (a) Upon receipt of an antidegradation demonstration application, the commissioner shall

provide notice and request comment according to 327 IAC 5-2-11.2. The commissioner shall hold a public meeting on the antidegradation demonstration application in accordance with 327 IAC 5-2-11.2 if:
(1) the proposed discharge is to an OSRW **or to a tributary of an OSRW**; or
(2) a public meeting is requested by at least twenty-five (25) persons living or working within the same ten (10) digit watershed or within fifteen (15) miles of the proposed discharge.
The commissioner may hold a public meeting in accordance 327 IAC 5-2-11.2 if the commissioner otherwise deems such a meeting necessary or appropriate.
(b) Once the commissioner determines that the information provided in the antidegradation demonstration application is administratively complete with the inclusion of:
(1) the applicable factors listed in section 6(b) and 6(d) of this rule, as appropriate, for the new or increased discharge;
(2) any other information regarding the proposed activities and the affected receiving water or waters that the commissioner deems appropriate; and
(3) evidence that the applicant held a public meeting that allowed interested parties the opportunity to hear the applicant's rationale supporting the elements of the applicant's antidegradation demonstration; the commissioner shall make a determination based on the complete application.
(c) The commissioner shall deny some or all of the request to significantly lower water quality if one (1) or more of the following applies:
(1) Cost-effective measures that would prevent or minimize the proposed lowering of water quality are reasonably available but the discharger has chosen not to implement these measures.
(2) The action that would cause the lowering of water quality is not necessary to accommodate important economic or social development in the area.
(3) The action would jeopardize state listed endangered or federally listed threatened and endangered species.
(d) The commissioner may approve some or all of the request to significantly lower water quality only if the following have occurred:
(1) An examination of nondegradation, minimal degradation, and degradation mitigation techniques or alternatives.
(2) A review of the social and economic issues related to the activity.
(3) A public participation process.
(4) Appropriate intergovernmental coordination.
(5) A determination by the commissioner that the lower water quality is necessary to accommodate important social or economic development in the area in which the receiving water or waters is located.
(e) In no event may a permit be granted that would not meet the requirements of section 3 of this rule.
(f) When the commissioner makes a determination on an antidegradation demonstration application, the commissioner shall:
(1) state which factors the commissioner considered in making his or her determination;
(2) state what determinations of other governmental entities were considered; and
(3) public notice the antidegradation demonstration determination according to 327 IAC 5-2-11.2 and the final determination shall be:
(A) summarized in the public notice form prepared by the commissioner; and
(B) incorporated into the draft permit and the fact sheet that is made available for public comment under 327 IAC 5-3-9.
(g) In addition to the information provided in the antidegradation demonstration application according to subsection (b)(1) and (b)(2), a discharger proposing to cause a significant lowering of water quality in an OSRW shall:
(1) implement a water quality improvement project in the **HUC-10 or HUC-11** watershed of the affected OSRW; or
(2) fund a water quality improvement project in the **HUC-10 or HUC-11** watershed of the affected OSRW by payment of a fee into the OSRW improvement fund established under IC 13-18-3-14; for each activity undertaken that will result in a significant lowering of water quality in an OSRW. A discharger proposing to implement or fund a water quality improvement project shall submit an application as required under section 8 of this rule.
(Water Pollution Control Board; 327 IAC 2-1.3-7)

327 IAC 2-1.3-8 Water quality improvement project application or payment to the OSRW improvement fund
Authority: IC 13-13-5-1; IC 13-13-5-2; IC 13-18
Affected: IC 13-18-3-14; IC 13-23-13; IC 13-24-1; IC 13-25-5

Sec. 8. The following requirements apply to an application for a water quality improvement project:
(1) For a water quality improvement project application, the following apply:
(A) A discharger proposing, according to section 7(g) of this rule, to implement a water quality improvement project in the watershed of the OSRW that will result in an overall improvement of the water quality of the OSRW shall submit a water quality improvement project application to the commissioner simultaneously with the submission of the antidegradation demonstration application, required under section 6 of this rule. The water quality improvement project application must include the following information:
(i) A detailed description of the project, including:
(AA) the type and quantity of pollutants that will be reduced or eliminated as a result of the project; and
(BB) a project implementation timeline.
(ii) Sufficient information to clearly demonstrate that the project will result in an overall improvement in water quality in the OSRW.
(iii) Any data used to assess overall water quality improvement must be less than seven (7) years old and specific to the OSRW.
(B) Upon receipt of a water quality improvement project application, the commissioner shall provide notice and request comment according to 327 IAC 5-2-11.2. The commissioner shall, in accordance with 327 IAC 5-2-11.2, hold a public meeting on the water quality improvement project application concurrently with the public meeting held on the antidegradation demonstration application.
(C) Once the commissioner determines that the information provided by the discharger submitting a water quality improvement project application is administratively complete, the commissioner shall make a determination as to whether the project, based on the information submitted by the applicant, will result in an overall improvement in water quality in the OSRW.
(D) The commissioner shall approve or deny a water quality improvement project application considering the following factors:
(i) Whether the project can be successfully implemented.
(ii) Whether the project will offset the lowering of water quality caused by new or increased loadings of pollutants of concern.
(2) For payment to the OSRW improvement fund, the following apply:
(A) Prior to issuance of a permit, a discharger proposing to fund a water quality improvement project in the watershed of the affected OSRW by payment of a fee into the OSRW improvement fund established under IC 13-18-3-14 shall pay an amount, not to exceed five hundred thousand dollars ($500,000), that is determined by the department, using the information submitted to the department by the discharger, based on the type and quantity of increased pollutant loadings. The department shall determine the fee based on the:
(i) estimated initial capital cost; and
(ii) costs of operation and maintenance;
for the treatment system or other alternative that would be necessary to offset the proposed significant lowering of water quality caused by the increased pollutant loadings to the OSRW or its tributaries.
(B) The commissioner, prior to utilizing the funds in the OSRW improvement fund, shall solicit input from interested parties on the identification and selection of the water quality improvement projects to be funded with the funds in the OSRW improvement fund.
(C) The commissioner shall utilize the funds in the OSRW improvement fund to implement water quality improvement projects considering the following factors:
(i) Whether the project can be successfully implemented.
(ii) Whether the project will offset the lowering of water quality caused by new or increased loadings of pollutants of concern.
(iii) Cost-effectiveness of the project.
(Water Pollution Control Board; 327 IAC 2-1.3-8)

327 IAC 5-2-11.2 Public notice of comment period and public meetings for site-specific modification of
water quality criteria and values; an antidegradation exemption justification; an antidegradation demonstration; an alternate mixing zone demonstration; a variance
Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3
Affected: IC 13-11-2; IC 13-15-4-1; IC 13-15-5-1; IC 13-18-4; IC 13-18-7; IC 13-23-13; IC 13-24-1; IC 13-25-5

Sec. 11.2. (a) This section is applicable to an application for the following:
(1) Site-specific modification to water quality criteria under 327 IAC 2-1-8.9 and Tier I water quality criteria and Tier II water quality values under 327 IAC 2-1.5-16.
(2) An antidegradation demonstration application under 327 IAC 2-1.3-6.
(3) An antidegradation exemption justification under 327 IAC 2-1.3-5.
(4) An alternate mixing zone under section 11.4(b)(4)(F) of this rule.
(5) A variance under 327 IAC 5-3-4.1(c).
(b) Upon receipt of an application listed in subsection (a), the commissioner shall provide notice, request comment, and, if requested, schedule and hold a public meeting on the application in accordance with the following conditions:
(1) The commissioner shall provide notice of receipt of an application in the following manner:
(A) Publication of a notice in a daily or weekly newspaper in general circulation throughout the area affected by the discharge for which the demonstration was submitted.
(B) Send the notice to the following using electronic media whenever possible:
(i) Interested persons on either mailing list identified under the following:
(AA) 327 IAC 5-3-8(a).
(BB) 327 IAC 5-3-12(b)(1).
(ii) The applicant.
(2) The notice under subdivision (1) shall contain the following:
(A) The name and address of the department.
(B) The name and address of the applicant.
(C) An identification of the type of application submitted, such as an antidegradation exemption justification, antidegradation demonstration, alternate mixing zone, or variance.
(D) A brief description of the following:
(i) Location of any existing or proposed discharge point subject to the application, including an identification of the receiving water or waters.
(ii) The applicant's activities or operations that result in the discharge identified in the application.
(iii) The comment procedures and the procedures to request a public meeting.
(E) An identification of the pollutant of concern proposed to be discharged.
(F) Information on how to contact the department so interested persons may obtain further information, including a copy of the application.
(3) If requested by at least twenty-five (25) persons living or working within the same ten (10) digit watershed or within fifteen (15) miles of the proposed discharge, the commissioner shall hold a public meeting on the application in accordance with the following provisions:
(A) The commissioner shall provide notice of the public meeting as follows:
(i) Publication of a notice in a daily or weekly newspaper in general circulation throughout the area affected by the discharge for which the application was submitted.
(ii) Send the notice, using electronic media whenever possible, to the following interested persons:
(AA) Persons on the mailing list identified under 327 IAC 5-3-8(a).
(BB) Persons on the mailing list identified under 327 IAC 5-3-12(b)(1).
(CC) Those persons that commented on the notice of receipt of the application.
(iii) Send the notice to the applicant.
(B) The notice required by clause (A) shall contain the following:
(i) The date, time, and place of the public meeting.
(ii) The information required under subdivision (2).
(C) The meeting shall be held at least ten (10) days after the later of the following:

(i) The notice in accordance with clause (A)(i) appears in the newspaper.
(ii) The date of the notice sent to interested parties and to the applicant in accordance with clause (A)(ii) and (A)(iii).
(D) The meeting shall be recorded by any method of accurately and completely recording the details of the meeting.
(E) The commissioner shall request the applicant to provide at the meeting a summary and rationale for the application.
(F) At the commissioner's discretion, a public meeting may be noticed and held without having first received a request for a public meeting. In these instances, the notice for the public meeting may be included in the notice of receipt of the application.
(4) The time period under IC 13-15-4-1 is hereby changed to increase the period by thirty (30) days for any permit application subject to the time period that is affected by the application. If a public meeting is requested, the time period under IC 13-15-4-1 is hereby changed to increase the period by an additional thirty (30) days.
(Water Pollution Control Board; 327 IAC 5-2-11.2; filed Jan 14, 1997, 12:00 p.m.: 20 IR 1435; errata filed Aug 11, 1997, 4:15 p.m.: 20 IR 3378; filed Feb 14, 2005, 10:05 a.m.: 28 IR 2101)

Comments on IDEM's 2nd Notice Draft Rule (Antidegradation) from Environmental Coalition
Attachment B – Enviro Coalition De Minimis Submission, Oct. 2008

Responses of Environmental Groups to IDEM's Antidegradation Subgroup homework assignments

The following are the responses of the Environmental Groups to the assignments posed by IDEM following the September 16, 2008 meeting. We look forward to discussing these matters on October 30.

Assignment # 1:

Provide your suggested edits to the currently proposed applicability language of Section 1(b):

(b) Except as provided under section 4 of this rule, the antidegradation implementation procedures established by this rule apply to a proposed new or increased loading of a pollutant of concern to a surface water of the state. (Water Pollution Control Board; 327 IAC 2-1.3-1)

Remember, this language resulted from the discussion at the first subgroup meeting and was extensively reviewed at the second subgroup meeting. The review discussion did contemplate adding language to tie applicability to a "deliberative action". Please explain your reasoning for any proposed edits.

Response: This language is acceptable to the environmental groups.

Assignment # 2:

Provide your suggested edits to the currently proposed definition of "pollutant of concern":

(45) "Pollutant of concern" means a pollutant that is reasonably expected to be present in a discharge based on the source and nature of the discharge.

Remember, this language resulted from the discussion at the first subgroup meeting and was extensively reviewed at the second subgroup meeting. The review discussion seemed to end with the group acceptance of this language as long as IDEM clarifies that the current IDEM "Form 2C" process is how IDEM plans to continue to identify pollutants of concern for determining what pollutants need to be addressed by a permit. Please explain your reasoning for any proposed edits.

Response: This language is acceptable to the environmental groups.

Assignment # 3:

Complete the following table to identify your interest group's position on the key policy issues related to the types of discharges or actions that may be "exempt" from an antidegradation demonstration.

Note: A couple of actions (reduction of air pollutants and alleviation of a public health concern) currently included in Section 6 of the draft rule are included in the table for evaluation. At the second subgroup meeting, the appropriate level of review for these types of actions was discussed.

Also note: The last rows allow for "proposed additions". This is intended to capture your position on other types of discharges or actions that you may believe should also be "exempt" from an antidegradation demonstration. As discussed in the subgroup meetings, such discharges or actions included actions authorized under general permits, variances, etc. Please explain your reasoning for any proposed additional exemptions.

Response: See table in attached file "ANTIDEG PROPOSAL ENVIRO_Exemptions Table."

Assignment # 4:

Provide your suggested definition of "assimilative capacity". Currently, this term is not defined in the draft rule, but it is a critical concept that requires a common understanding by all who will apply antidegradation.

Response:

Background

The equivalent term "loading capacity" is defined in 40 CFR 130.2(f) as follows:

"40 CFR § 130.2 Definitions.
** * **
(e) Load or loading. An amount of matter or thermal energy that is introduced into a receiving water; to introduce matter or thermal energy into a receiving water. Loading may be either man-caused (pollutant loading) or natural (natural background loading).
(f) Loading capacity. The greatest amount of loading that a water can receive without violating water quality standards.
** * * "*

See 58 Fed. Reg. 20802, 20903-04 (April 16, 1993) (EPA notes that assimilative capacity is functionally the same as the loading capacity that is defined in 40 CFR 130.2(f) and which forms the basis for total maximum daily load (TMDL) calculations)

Alternative definitions include the following selected from the EPA website:

"Assimilative capacity is the increment of water quality (in terms of concentration), during the appropriate critical condition(s), that is better than the applicable numeric criterion."

EPA Region VIII Antidegradation Guidance

> ***"Assimilative capacity has been defined as the quantity of contaminants that can be added to a system without causing unacceptable alteration or impairing beneficial uses."***

Environmental Protection Agency, Ocean Dumping; Notice of Final Determination To Deny Petitions To Redesignate the 12-Mile Site, [OW-2-FRL-2816-1], 50 FR 14336, April 11, 1985.

In 327 IAC 5-2-11.4(a)(12), loading capacity is defined as "the greatest amount of loading that a water can receive without violating water quality standards."

<u>Proposal</u>

From the above definitions and the basic principles applicable to NPDES permitting, the Environmental Groups conclude that "assimilative capacity" or "loading capacity" is:

> ***"the amount of loading that can be allowed to a water body or segment under critical low flow conditions while protecting existing conditions and assuring that the new or increased loading does not cause or contribute to a violation of numeric or narrative water quality standards."***

See also 40 CFR §§122.44(d), 131.12(a).

<u>Assignment # 5:</u>

Provide your suggested edits to the currently proposed de minimis language of Section 4(b)(13):

> **(13) A new or increased loading of a pollutant of concern that is a de minimis lowering of water quality determined according to the following:**
> **(A) For a HWQ that is not an ONRW, OSRW or EUW, the following apply:**
> **(i) Calculation considerations according to the following:**
> **(AA) The proposed increase in mass-based effluent limits is less than or equal to the water quality-based effluent limit (WQBEL) calculated using ten percent (10%) of the unused loading capacity, or the DTBEL, whichever is more stringent.**
> **(BB) The unused loading capacity has not decreased by more than X percent (X%) above the benchmark set at the time of the initial antidegradation demonstration or de minimis evaluation in the area of the discharge.**
> **When the WQBEL calculated using ten percent (10%) of the unused loading capacity is greater than the WQBEL based on the FAV, the WQBEL based on the FAV shall be used as the De minimis Water Quality Based Effluent Limit.**
> **(ii) The proposed increase in mass discharged shall be determined as follows:**

(AA) By using the equation of Mp – ME = proposed increase in mass discharged;

where: Mp = monthly average mass effluent limitation for the pollutant of concern in the proposed discharge;

and ME = monthly average mass effluent limitation for the pollutant of concern in the existing permit.

(BB) If the existing permit does not contain a monthly average mass effluent limitation for the parameter but does contain a weekly average or daily maximum mass limit, the existing weekly average or daily maximum permit limit shall be converted into a monthly average value to be used in the equation in subitem (AA).

(CC) If the existing permit does not contain a mass limit for the parameter but does contain a concentration limit, this concentration limit shall be converted into a mass value, using the discharge flow determined under 327 IAC 5-2-11.4(a)(9) value to be used in the equation in subitem (AA).

(DD) If the existing permit does not contain an effluent limit for the parameter, the actual monthly average mass discharged shall be used in the equation in subitem (AA).

(iii) For heat, the following conditions must be satisfied:

(AA) The new or increased discharge will not result in an increase in temperature in a stream or an inland lake, outside of the designated mixing zone, where applicable.

(BB) The new or increased discharge will not result in an increase in waste heat of an amount in a stream greater than the amount determined by calculating the number of British thermal units (BTUs) required to raise the temperature of the stream design flow of the receiving stream by one (1) degree Fahrenheit.

(B) For a HQW that is an OSRW or EUW, the following apply:

(i) Calculation considerations according to the following:

(AA) The proposed increase in mass-based effluent limits is less than or equal to the mass calculated using the new or increased flow and the water quality based effluent limitation (WQBEL) calculated without a mixing zone or the DTBEL, whichever is more stringent.

(BB) The unused loading has not decreased by more than X percent (X%) above the benchmark set at the time of the initial antidegradation demonstration or de minimis evaluation in the area of the discharge.

(ii) The proposed increase in mass discharged shall be determined as follows:

(AA) By using the equation of Mp – ME = proposed increase in mass discharged;

where: **Mp = monthly average mass effluent limitation for the pollutant of concern in the proposed discharge;**

and **ME = monthly average mass effluent limitation for the pollutant of concern in the existing permit.**

(BB) If the existing permit does not contain a monthly average mass effluent limitation for the parameter but does contain a weekly average or daily maximum mass limit, the existing weekly average or daily maximum permit limit shall be converted into a monthly average value to be used in the equation in subitem (AA).
(CC) If the existing permit does not contain a mass limit for the parameter but does contain a concentration limit, this concentration limit shall be converted into a mass value, using the discharge flow determined under 327 IAC 5-2-11.4(a)(9) to be used in the equation in subitem (AA).
(DD) If the existing permit does not contain an effluent limit for the parameter, the actual monthly average mass discharged shall be used to be used in the equation in subitem (AA).

(iii) Relative to temperature, the new or increased discharge will not result in an increase in temperature:
(AA) in a stream or an inland lake, outside of the designated mixing zone, where applicable; or
(BB) in Lake Michigan, as allowed in 327 IAC 2-1.5-8(c)(4)(D)(iv), at the edge of a one thousand (1,000) foot arc inscribed from a fixed point adjacent to the discharge.

(iv) Relative to heat, the new or increased discharge will not result in an increase in waste heat in an amount:
(AA) in a stream greater than the amount determined by calculating the number of BTUs required to raise the temperature of the stream design flow of the receiving stream by one (1) degree Fahrenheit; or
(BB) in Lake Michigan, greater than five-tenths (0.5) billion BTUs per hour.

The concept of de minimis was discussed at the third subgroup meeting. The discussion considered the following policy issues:

- Is 10% of the unused loading capacity the correct percentage for determining a de minimis discharge?
- What is the appropriate de minimis for an OSRW/EUW?
- Is the final acute value (FAV) the appropriate ceiling for a de minimis discharge?
- When calculating the de minimis, should the effluent flow be included, adding to the receiving stream's loading capacity?

Please address these policy issues in your suggested edits and explain your reasoning for any proposed edits.

Response: See attached file "ANTIDEG PROPOSAL ENVIRO_De Min Proposal" for proposed language, the concepts for which were taken largely from the Missouri antidegradation rules and the existing Indiana regulations applying to the Great Lakes basin.

In response to the four questions:

We do not believe that 10% of the unused loading capacity is the correct percentage for determining a de minimis for proposed new or increased discharges to Indiana water bodies. As Kentucky Waterways Alliance v. EPA (6th Cir. 2008) clearly indicates, cumulative degradation that exceeds 10% cannot properly be seen as insignificant as a matter of law or reason. Accordingly, for non-OSRWs and non-EUWs, we propose a 5% limit on de minimis degradation with the understanding that up to 10% cumulative degradation can be allowed without a showing of necessity.

As we will explain further on October 30, we do not believe that 10% of the unused loading capacity is the correct percentage for determining a de minimis for proposed new or increased discharges to Lake Michigan or other OSRWs. We believe that sound policy would not allow a de minimis for any pollutant for which it was proposed to discharge more than the background level of that pollutant. While allowing discharges up to the background level does allow increased loadings, OSRWs should not be allowed to be degraded unless it has been shown that it is necessary to do so to accommodate important social or economic development.

We do not believe that the final acute value is an appropriate ceiling because this allows acutely toxic discharges that have not been shown to be necessary. At a minimum, an antidegradation analysis should be required whenever a discharge is proposed that would violate the acute water quality standard (FAV/2) at the end of the pipe.

Regarding treatment of the proposed new or increased effluent flow, upon further consideration of the history of the GLI, the importance of maintaining current Indiana protections and sound policy, we do not believe that the proposed effluent flow should be considered in calculating the assimilative or loading capacity. Not counting the proposed effluent flow provides necessary increased protection to low flow headwater streams that can be critical to the environment. Further, not counting the proposed effluent flow will prevent use of groundwater or other water as dilution to avoid antidegradation requirements. Finally, the 10% cumulative assimilative capacity allowance is extremely generous.[i] It is unclear from federal law that any de minimis should be allowed at all and 10% is at or above the extreme high side of what has been allowed as de minimis. If not counting the proposed effluent flow in some circumstances brings the number below 10%, that is appropriate given these circumstances.

Finally, we would be willing to discuss methods of calculating the de minimis that, while respecting the principle that no more than a 10% cumulative de minimis can be allowed, would be easier to calculate. For example, allowing discharges that meet water quality standards for all POCs at the end of the pipe wherever there was at least 20:1 dilution would be much easier for IDEM to calculate, almost always protect assimilative capacity and allow discharges to pass as de minimis in many high dilution situations. Simply requiring an antidegradation analysis in all situations in which there was less than, for example, 20:1 dilution would be an easier rule to apply and would require an antidegradation analysis in very few situations it which a de minimis exception is proper.

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[i] *In Ohio Valley Environmental Coalition, the court declined to overturn the West Virginia rule that would allow a discharger to use 10% of the remaining assimilative capacity without making a Tier II showing of necessity. 279 F. Supp. 2d at 770. However, given the "narrow" and "tightly bounded" nature of the de*

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mininis doctrine, this 10% exception appears to be the outer limit. C.f. Alabama Power, 636 F.2d at 360-61; Bestfoods v. United States, 260 F.3d 1320, 1325 (Fed. Cir. 2001) (7% exemption is "relatively generous").

DRAFT RULE – ENVIRO COALITION DE MINIMIS PROPOSAL – 10/15/08

Rule 1.3. Antidegradation Standards and Implementation Procedures

Section 4(b)(13) A new or increased loading of a non-BCC pollutant of concern that constitutes a de minimis lowering of water quality.

Dischargers seeking to avoid an antidegradation analysis based on a de minimis exemption are responsible to demonstrate compliance with the following conditions. This demonstration may be avoided if the discharger chooses to proceed on the assumption that the discharge will cause a significant lowering of water quality. Dischargers wishing to make this assumption may skip to an antidegradation demonstration under Section 6 of this rule.

(A) For HQWs that are not OSRWs or EUWs, the following apply:

(i) If the following conditions are met, then the proposed lowering of water quality is de minimis and a Tier 2 review is not required:

(AA) The proposed discharge will result in a reduction of less than 5 percent of the facility loading capacity (FLC) for any pollutant as a result of any single discharge, and

(BB) The proposed discharge will result in a cumulative reduction of less than 10 percent of the segment loading capacity (SLC) for any pollutant as a result of all discharges combined after reference water quality (RWQ) was determined; and

(CC) The proposed discharge will not exceed any default technology based effluent limitations (DTBELs) set by the department for any pollutant of concern.

(ii) Individual loading shall be assessed by calculating the percentage reduction in facility loading capacity (FLC) as a result of a new or increased discharge.

In order to ensure that the proposed discharge will result in a reduction of less than 5 percent of the facility loading capacity, dischargers seeking to use a de minimis exemption must demonstrate that:

$$FLC_2 \geq 0.95\ FLC_1$$

Where:

$$FLC_1 = [(WQC \cdot Qs) - (Cs \cdot Qs)] \cdot CF$$

$FLC_2 = [(WQC \cdot Qs) - (Cs \cdot Qs) - (Ce \cdot Qe)] \cdot CF$

WQC = water quality criterion (represented as a concentration, e.g., mg/L)

Qs = existing stream flow at critical flow conditions (7Q10) measured at a point immediately downstream of the facility seeking the new or increased loading. If existing flow data does not exist or is outdated, the discharger is responsible to provide stream modeling data necessary to establish Qs. Qs does not include proposed effluent flows.

Cs = existing pollutant concentration in stream at critical flow conditions. Where upstream dischargers exist, Cs shall be adjusted to include the levels of pollutants already permitted to be discharged at maximum design flow.

Qe = proposed increase in effluent flow.

Ce = pollutant concentration in proposed effluent.

CF = conversion factor to convert a pollutant mass loading into the desired units. (For example, a CF of 5.4 to derive a load in "lbs/day" is appropriate when the WQC is represented in mg/L and flow is represented in cfs [(mg/L) · (cfs) · 5.4) = (lbs/day)]).

(iii) Cumulative loading shall be assessed by calculating the percentage reduction in segment loading capacity (SLC) as a result of all discharges combined after reference water quality (RWQ) was determined.

In order to ensure that the proposed discharge will result in a cumulative reduction of less than 10 percent of the segment loading capacity, dischargers seeking to use a de minimis exemption must demonstrate that:

$SLC \geq 0.9\ SLC_{REF}$

Where:

$SLC = [(WQC \cdot Q_{SEG}) - (C_{SEG} \cdot Q_{SEG})] \cdot CF$

$SLC_{REF} = [(WQC \cdot Q_{SEG}) - (RWQ \cdot Q_{SEG})] \cdot CF$

WQC = water quality criterion (represented as a concentration, e.g., mg/L)

Q_{SEG} = the critical stream flow (7Q10) measured at the most downstream extent of the water segment.

C_{SEG} = the existing pollutant concentration measured at the most downstream extent of the water segment. C_{SEG} shall be adjusted to account for the levels of pollutants already permitted to be discharged by all upstream dischargers at maximum design flow.

RWQ = reference water quality established at the time of the first application made after October 15, 2008 for a new or increased loading under these antidegradation implementation procedures (represented as a concentration, e.g., mg/L)

(iv) For heat, the following conditions must be satisfied:

(AA) The new or increased discharge will not result in an increase in temperature in a stream or an inland lake, outside of the designated mixing zone, where applicable.

(BB) The new or increased discharge will not result in an increase in waste heat of an amount in a stream greater than the amount determined by calculating the number of British thermal units (BTUs) required to raise the temperature of the stream design flow of the receiving stream by one (1) degree Fahrenheit.

(B) For HQWs that are OSRWs or EUWs, the following apply:[1]

(i) If the following conditions are met, then the proposed lowering of water quality is de minimis and a Tier 2 review is not required:

(AA) The proposed discharge will not exceed the reference water quality (RWQ) for any pollutant in the receiving water; and

(BB) The proposed discharge will not exceed any default technology-based effluent limitations (DTBELs) set by the department for any pollutant of concern.

(ii) Relative to temperature, the new or increased discharge will not result in an increase in temperature:

(AA) in a stream or an inland lake, outside of the designated mixing zone, where applicable; or

(BB) in Lake Michigan, as allowed in 327 IAC 2-1.5-8(c)(4)(D)(iv), at the edge of a one thousand (1,000) foot arc

[1] Although we do not include a cumulative cap for OSRWs and EUWs in this subsection, we propose a change to Section 3(c) of the draft rule to establish a cumulative cap on loadings into OSRWs and EUWs.

inscribed from a fixed point adjacent to the discharge.

(iii) Relative to heat, the new or increased discharge will not result in an increase in waste heat in an amount:

(AA) in a stream greater than the amount determined by calculating the number of BTUs required to raise the temperature of the stream design flow of the receiving stream by one (1) degree Fahrenheit; or

(BB) in Lake Michigan, greater than five-tenths (0.5) billion BTUs per hour.

(Water Pollution Control Board; 327 IAC 2-1.3-4)

DEFINTIONS

Loading Capacity: the amount of loading that can be allowed to a water body or segment under critical low flow conditions while protecting existing conditions and assuring that the new or increased loading does not cause or contribute to a violation of numeric or narrative water quality standards.

Reference Water Quality (RWQ): A characterization of level of the pollutant of concern in a water segment that serves as a fixed benchmark for measuring future cumulative degradation of that water segment. RWQ shall be established by the first applicant after October 15, 2008 for a new or increased loading under these antidegradation implementation procedures. When calculating RWQ, the discharger shall account for the levels of pollutants already permitted to be discharged by all upstream dischargers at maximum design flow. [NOTE – NEED TO DEVELOP PROTOCOL FOR ESTABLISHING RWQ – AS IN MISSOURI PROCEDURES]

Segment: A segment is a section of water that is bound, at a minimum, by significant existing sources and confluences with other significant water bodies. The use of this term is intended to provide a framework for tracking changes in loading capacity. An evaluation of the reference water quality (RWQ) must be made for each segment receiving a new or increased discharge.

OFFICIAL COMMENT

15 January 2010

LSA Document #08-764
MaryAnn Stevens, Rules Development Branch
Office of Legal Counsel
Indiana Dept. Of Environmental Management
100 N. Senate Avenue
MC-65-41
Indianapolis, Indiana 46204-2251

RE: Proposed Water Quality Rule for Indiana

Dear Ms. Stevens:

I am writing to express my concern regarding the proposed antidegradation rule to fully protect Lake Michigan. The draft rule appears to contradict the intent of the laws meant to protect water quality while working to comply with existing standards.

I urge you to strengthen rather than diminish the proposed rule, which exempts new pollutants that can be discharged into Lake Michigan. The effect on the health of the population is of great concern. We must protect water quality as the Clean Water Act intended.

I appreciate your consideration of my comments.

Sincerely,

Exemption 6

Exemption 6

League of Women Voters, Greater Green Bay

Exemption 6

OFFICIAL COMMENT

Save Maumee Grassroots Organization
1901 Niagara Dr.
Fort Wayne, IN 46805
260.417.2500
www.savemaumee.org

LSA Document #08-764 (Antidegradation)
Mary Ann Stevens, Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave.
MC 65-41
Indianapolis, Indiana 46204-2251

Dear MaryAnn Stevens, Save Maumee would like this letter read at your public meeting
RE: LSA Document #08-764 (Antidegradation)

This letter is coming from the largest and longest contributing stream to the Great Lakes in the United States, The Maumee River. The Maumee headwaters right here in Fort Wayne, IN. Our water here has many concerns. If you use the methods proposed in the draft rule, state regulators could permit multiple new low-level discharges of a pollutant that together have a significant cumulative impact on Lake Michigan's water quality, without any evidence that the additional pollution is justified. The rule does NOT go far enough to protect Lake Michigan from new or increased pollution and is inconsistent with federal requirements.

We feel Indiana's rule would trigger an antidegradation review only when a new or increased discharge would increase the level of a pollutant to the degree it poses a potentially "detrimental effect" on designated uses.

Waiting to review a pollutant until it reaches levels where it could potentially make the water undrinkable, unswimmable or harm aquatic life misses the whole point that this is meant to keep clean waters clean. Please protect it and enforce current laws that are in place for the health of the public.

JAN-28-2010 13:28 FROM:CITIZENS ACTION COAL 1260 420 8500 TO:13172335517 P.1/2

* The rule includes several unjustified exemptions, and excludes phosphorus, sediment and other key pollutants for which no thresholds exist from protective provisions -- even though these pollutants are known to harm water quality.

* The rule exempts so-called "de minimis" – or low-level -- new pollution discharges from a federal requirement that the new pollution is a necessary byproduct of important local economic or social benefit.

The Great Lakes Alliance is working with a coalition of groups in Indiana, including Save Maumee Grassroots Org., to strengthen the federally mandated rule, which sets a limit for how much new pollution can be discharged to Lake Michigan and other waterways in the state.

The federal Clean Water Act requires states to update their water quality standards at least every three years, and to develop and adopt statewide antidegradation policies for water quality standards. Ours have not been updated since the early 90's.

Indiana's rules are being debated against the backdrop of the public outcry that followed the state's issuance of a wastewater permit in 2007 that would have allowed British Petroleum's Whiting, Ind. refinery to increase its pollution discharge to Lake Michigan. The BP permit drew concern that Indiana's law doesn't do enough to protect water quality, and an independent review found the state's inconsistent antidegradation policies caused some of the confusion.

Indiana's current antidegradation requirements were developed under the Great Lakes Initiative of the 1990s and apply only to the Lake Michigan basin, PLEASE expand the protection!

Sincerely,

Abigail Frost

Abigail Frost
Save Maumee Grassroots Org. Founder
Master Naturalist
Watershed Expert

January 15, 2010

OFFICIAL COMMENT

Exemption 6 [redacted]

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens, Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave.
MC 65-41
Indianapolis, Indiana 46204-2251
Fax Number: (317) 233-5517

Dear Ms. Stevens,

I am writing to tell you my concern over the federally mandated water quality rule proposed for Indiana, which I believe falls short of adequately protecting Lake Michigan's water quality. I urge Indiana instead to improve the proposed antidegradation rule in order to uphold the highest level of protection for Lake Michigan's water quality. Lake Michigan is my backyard, I spend my summer swimming in the lake, I drink the water, and enjoy the wildlife. For these reasons and many more, I care deeply about this valuable resource. The water quality rule currently proposed for Indiana would prompt an antidegradation review only when the level of a pollutant poses a "detrimental effect"; this is a reactionary measure with harmful consequences rather than a preventative measure as the Clean Water Act intends. The water quality rule proposed for Indiana also includes several important exemptions such as the exclusion of phosphorus, sediment, and other significant pollutants known to impair water quality. In addition, it permits low-level pollution discharges for new pollutants, which combined can have significant consequences on water quality.

The current water quality rule proposed for Indiana is not acceptable as it prevents progress in improving water quality for Lake Michigan and I strongly encourage you to propose a more effective rule that upholds the highest level of protection for Lake Michigan's water quality. Thank you for your time.

Sincerely,

Exemption 6

J. Nathan Noland, President

Office (317) 638-6997
Fax (317) 638-7031
admin@indianacoal.com

RECEIVED
STATE OF INDIANA
FEB 2 2010
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Water Quality

INDIANA COAL COUNCIL, INC.
150 West Market Street, Suite 400
Indianapolis, IN 46204
www.indianacoal.com

OFFICIAL COMMENT

January 30, 2010

LSA Document #08-764 (Antidegradation)
Mary Ann Stevens
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Avenue
MC 65-41
Indianapolis, IN 46204-2251

Re: **Comments on LSA Document #08-764**
Second Notice of Comment Period

Dear Ms. Stevens:

The Indiana Coal Council, Inc. ("ICC") submits the following comments regarding the "Development of New Rules and Amendments to Rules Concerning Antidegradation Standards and Implementation Procedures", LSA Document #08-764. The ICC is also a member of the Indiana Water Quality Coalition and incorporates their comments herein to avoid duplicity.

The ICC is a trade association representing approximately 98% of Indiana's coal production. The association was formed to foster, promote, and defend the interest of Indiana's coal producers, coal reserve holders, and other business entities related to the coal industry. All Indiana coal operators will be affected by the proposed antidegradation rules.

As written, the proposed rules lack regulatory certainty in a number of ways. Foremost, a "pollutant of concern" should be limited to a pollutant that is *regulated as a water quality standard, a water quality-based effluent limit, a technology-based effluent limit, a regulated BBC, a regulated toxic substance or regulated within a BMP.* Federal regulations are clear that states must adopt water quality criteria that protect the designated use. Federal regulations do not require that every possible substance must be regulated.

The majority of coal mine NPDES permits are general permits and should not be subject to antidegradation procedures because these discharges are de facto considered not to be a "significant lowering of water quality", or they would not be eligible for a general permit in the first place. Coal mines are required to obtain NPDES permits for their sediment basins that generally discharge into rural

drainage ditches. Due to the sediment basins, vegetative cover, and erosion control coal mine discharges into these drainage ditches are generally of higher quality than surrounding agricultural runoff.

However, IDEM has not "reviewed" the general permits as directed by the General Assembly which makes it very difficult for a general permit holder to comment on this proposal. I attempted to ascertain from member companies what the main concerns were with the current proposal, and the answers came back the same. We do not understand the rule and how it will be implemented and therefore it is impossible to comment and make suggested changes. While this is a generalization, it is clear that the rule proposal needs to be reworked and simplified so the regulated community can understand its implications and plan accordingly. We further urge IDEM to "review" the current general permits as soon as possible so a regulated entity can determine how their activities will be regulated and can comment accordingly. Delay in these determinations further confuses the regulated community and coal mine general permit holders in particular.

In communications with member companies we tried to ascertain what fiscal costs would be associated with the rule proposal. Again, assuming the current general permits (including Rule 7) will not be subject to antidegradation rules, there would not be any fiscal impact to the coal industry. When asked the follow up question, if coal mine discharges are subject to antidegradation, what would be your increased costs, a variety of scenarios were suggested. In summary, costs to the regulated community would substantially increase.

One coal mine operator that typically has large surface mines did discuss the proposed rule with an outside consultant familiar with water discharges from surface coal mines. The consultant indicated that a full antidegradation demonstration could cost as much as $100,000. In a large surface mining area where multiple watersheds are encountered and as many as 25 different NPDES permits would be required over the life of the mine, antidegradation demonstration costs would exceed $1M.

Additionally, one underground coal mine operator with experience in other jurisdictions indicated that costs at an underground coal mine could exceed $250,000 for an individual NPDES permit with associated antidegradation demonstrations.

These projected costs seem exorbitant, but they are realistic. Costs would be more realistic if the rule were simplified and recognized other regulatory program review requirements for the same locations. Coal mines are regulated under IC 14-34 and the federal Surface Coal Mining and Reclamation Act where hydrological impact issues are necessarily a part of the regulatory review and ultimate permitting decisions. In fact, if IDEM recognized this for coal mining operations, it should continue the general permits for coal mines and no real new costs would be encountered by the regulated entity.

We recognize that IDEM has requested supporting fiscal impact information within 15 days or so following the deadline for these comments. For these reasons, we request that the agency review the Rule 7 general permit requirements for coal mines and respond to the ICC if the agency believes that

general permits for coal mines are no longer warranted. While we disagree with any such assessment we then could potentially provide the agency with a more in depth fiscal analysis with supporting data.

In summary, we believe the rule is more complex than required by federal law and certainly more complex than other states where USEPA has approved antidegradation regulatory programs. The rule needs extensive "simplification" to provide guidance and clarity to the regulated community. Further, it is difficult to comment on the current rule proposal because IDEM has not made determinations concerning the various general permits under current law. We urge IDEM to complete the review of all general permits and indicate what status they would have following a final antidegradation rule.

Sincerely yours,

J. Nathan Noland

INDIANA FARM BUREAU INSURANCE
We're Part of Your Life

Indiana Farm Bureau Insurance FAX Cover Sheet

Total. Pages : 3

TO:

Attention: MaryAnn Stevens

Recipient FaxNo 2335517

OFFICIAL COMMENT

FROM:

Sender's Name MSPELLMAN

Description : Final Antidegradation Comments

Note :

Maria L. Spellman
Legal Assistant/Legal Affairs Team
Indiana Farm Bureau, Inc.
Direct Line: (317) 692-7840
Fax: (317) 692-8451
Email: mspellman@infarmbureau.org

Attention: MaryAnn Stevens

Recipient FaxNo

MSPELLMAN

Description: Final Antidegradation Comments

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LSA Document #08-764 (WPCB) (Antidegradation)
MaryAnn Stevens
Rules Development Branch
Office of Legal Counsel
Indiana Dept. of Environmental Management
100 North Senate Ave.
MC 65-41
Indianapolis, IN 46204-2251
Facsimile # 317-233-5517

OFFICIAL COMMENT

Indiana Farm Bureau/Indiana Pork Comments

These comments are submitted on behalf of Indiana Farm Bureau, Inc. and the Indiana Pork Producers Association. We appreciate the opportunity to comment on this proposed rulemaking. In addition, we thank IDEM for hosting public meetings on this rule proposal and for the efforts undertaken by staff to answer our questions and address our concerns.

While it is clear that the focus in adopting the antidegradation rule is point sources that directly discharge through pipes and other conduits, we are concerned with how this proposed rule could impact Indiana livestock operations regulated by a federal NPDES permit. Additionally, there may be future impacts upon agricultural activities that are not currently subject to NPDES permits. Essentially, this rule proposal has raised numerous questions for agriculture but the answers do not seem to be clear. In the very least, the agricultural community is concerned that once this rule takes effect that efforts will be made to apply the rule requirements to agricultural production practices in a way that is not currently anticipated.

In the previous discussions about this proposal, the indication has been that this rule will not apply to agricultural operations because they do not discharge. However, we are concerned that the language of the rule does not clearly indicate this result. As a general proposition, livestock operations on the whole seldom discharge. Nonetheless, some are designed to discharge effluent such as non-contact cooling water. Other facilities may be subject to an accidental discharge. It is clear under EPA's requirements for a federal NPDES permit for CAFOs that livestock operations that discharge or propose to discharge will be required to obtain an NPDES permit. In addition, facilities that have had accidental discharges may also be required to obtain an NPDES permit. If the assumption is that those facilities do discharge, they would seem to be at risk for being required to make an antidegradation demonstration.

Language currently exists in rule which may lead to the conclusion that livestock operations will not be required to undergo the antidegradation demonstrations in Proposed Rule 1.3. Rule 15 states, "Compliance with this rule and all applicable requirements for an NPDES general permit under article 15 shall meet the nondegradation requirements of 327 IAC 2-1. 327 IAC 15-15-1(d). In the "Maintenance of surface water quality standards" section of Rule 1, it is stated that "No degradation of water quality shall be permitted which would interfere with or become injurious to existing and potential uses." 327 IAC 2-

1-2(1). If, as 327 IAC 15-15-1(d) states, all CAFO general permits already meet the nondegradation standard of 327 IAC 2-1-2, is this enough to show that the CAFO general permit does not have to undergo the antidegradation review discussed in 327 IAC 2-1.3-1(c)? If so, this should be stated clearly in Proposed Rule 1.3.

Even if the above scenario was true and was stated clearly in 327 IAC 2-1.3, it is still not clear that holders of individual CAFO permits would be excluded.

We understand that the nature of CAFO discharges do not lend themselves to antidegradation review, and that those discharges that do not meet the standard of an agricultural stormwater discharge are so minimal that in almost every case there would be very little negative impact on the waters of the state. An actual point source discharge from a CAFO is almost always accidental, so tracking the amount and frequency of such discharges is impossible. As such, there would be no way to determine when operational expansion would trigger an increase of these sporadic discharges. If Rule 1.3 is intended to apply only to "...a proposed new or increased loading of a pollutant of concern to a surface water of the state," there is no way to determine when this would occur for a CAFO. 327 IAC 2-1.3-1(b). Even if a determination could be made, with no numeric standards for nutrients, successfully completing the antidegradation demonstration would be next to impossible. We understand the logic that this proposed rule does not apply to CAFOs, we merely hope the final version of Rule 1.3 will more clearly state this position.

We thank you for your consideration of our comments. Questions can be addressed to Josh Trenary at jtrenary@inpork.org or Justin Schneider at jschneider@infarmbureau.org.

Sincerely,

Josh Trenary
Indiana Pork Producers Association

Justin T. Schneider
Indiana Farm Bureau, Inc.

Indiana ENERGY Association

1500 ONE AMERICAN SQUARE, BOX 82065 INDIANAPOLIS, INDIANA 46282 317-632-4406 FAX 317-262-4940 www.indianaenergy.org

Ed Simcox, CEO
Stan Pinegar, President
Boonville Natural Gas Corp.
Citizens Energy Group
Community Natural Gas Co., Inc.
Duke Energy
Indiana Michigan Power
Indiana Natural Gas Corp.
Indianapolis Power & Light Company
Kokomo Gas & Fuel Co.
Midwest Natural Gas Corp.
Northern Indiana Fuel & Light Co.
Northern Indiana Public Service Co.
Ohio Valley Gas Corp.
Sycamore Gas Co.
Vectren Energy Delivery of Indiana, Inc.

THE VOICE FOR INDIANA ENERGY

Dept. Of Environmental Management
Commissioner's Office
FEB 01 2010

February 2, 2010

OFFICIAL COMMENT

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave.
MC 65-41
Indianapolis, Indiana 46204-2251

Re: Indiana Utility Group Comments to IDEM's Second Notice of Comment to the Antidegradation Draft Rule

Dear Ms. Stevens:

Enclosed, please find for filing the comments offered on behalf of the Indiana Utility Group regarding #08-764 Antidegradation Rule. If you have any questions or concerns regarding our comments, please do not hesitate to contact me.

Very truly yours,

Stan Pinegar

Stan Pinegar
On behalf of the
Indiana Utility Group

Indiana ENERGY Association

1500 ONE AMERICAN SQUARE, BOX 82065 INDIANAPOLIS, INDIANA 46282 317-632-4406 FAX 317-262-4940 www.indianaenergy.org

Ed Simcox, CEO

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Boonville Natural Gas Corp.

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Northern Indiana Fuel & Light Co.

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Ohio Valley Gas Corp.

Sycamore Gas Co.

Vectren Energy Delivery of Indiana, Inc.

THE VOICE FOR INDIANA ENERGY

February 2, 2010

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave.
MC 65-41
Indianapolis, Indiana 46204-2251

Re: Indiana Utility Group Comments to IDEM's Second Notice of Comment to the Antidegradation Draft Rule

Dear Ms. Stevens:

By this letter, we respectfully submit these comments for your consideration in response to Indiana Department of Environmental Management's Second Notice of Comment for the Development of New Rules and Amendments to the Rules Concerning Antidegradation Standards and Implementation Procedures ("rule").

These comments are offered on behalf of the Indiana Energy Association (IEA) and other partners to this effort collectively referred to as Indiana Utility Group ("IUG"). The IUG for purposes of this rulemaking includes the following companies:

Citizens Energy Group
Dominion State Line Energy
Duke Energy
Hoosier Energy REC, Inc.
Indiana-Kentucky Electric Corporation
Indiana Michigan Power
Indianapolis Power & Light Company
Northern Indiana Public Service Co.
Vectren Energy Delivery of Indiana, Inc.
Wabash Valley Power

The IEA is an association of the 13 Indiana investor-owned electric and gas utilities and one charitable public trust gas utility which represent over 97 percent of the baseload electricity generating capacity in the state which is impacted by these rules. The IEA members listed above and the aforementioned individual non-member companies, collectively referred to as the "Indiana Utility Group" or "IUG" operate approximately 21,374 MW of coal-fired capacity in Indiana and serve over 4,000,000 Indiana customers. The Indiana Utility Group is committed to working with IDEM to develop an appropriate water quality regulatory program that provides antidegradation implementation in an appropriate and effective manner.

This letter lays out our fundamental concerns with the legality of the antidegradation review process as defined in the draft rule and the critical deficiencies of the draft rule. Comments to the cost analysis will be filed in response to the January 29, 2010 announcement that IDEM will be developing a fiscal impact analysis for the antidegradation rule as found at IC 4-22-2-28. IDEM has requested submission of estimates on the fiscal impact of compliance with the antidegradation rule requirements. The Indiana Utility Group ("IUG") is currently in the process of compiling such information and comments and will be providing input to the agency in this regard.

These comments include a legal/regulatory analysis and a technical implementation analysis. The legal/regulatory analysis is set forth below in narrative form. The technical analysis focuses upon the insurmountable vagaries of the draft rule that render it impossible for a potentially regulated facility to model and plan for the regulatory goals Indiana would impose. The technical analysis was generated by ENVIRON as part of a joint effort among the members of the IUG and the Indiana Manufacturers Association. Environ is a highly respected consulting firm, which provides technical services for clients to effectively manage exposure and health risks related to the products and by-products of industry and technology. The company has extensive work experience in the area water regulation and permitting in Indiana and surrounding states. They have specific experience with antidegradation implementation.

In addition, these comments incorporate by reference the attached written comments by Bill Beranek, Indiana Environmental Institute, Inc. The observations of the Indiana Environmental Institute, Inc. succinctly outline four main issues that are unaddressed in the draft rule that create uncertainty as to whether it could be consistently implemented, as follows:

- The information and analysis required by IDEM for a complete socioeconomic review are not defined.

- The criteria to be used by IDEM to judge the activity related to the discharge accommodates important economic or social development in the area are not defined.

- The information and analysis required to be provided to IDEM for a substantive technical analysis of alternatives to the loading are not defined.

- The criteria to be used by IDEM to decide whether a proposed activity will meet the demonstration to allow for lowering of water quality are not defined in a manner to assure transparent, predictable and consistent decisions.

The IUG embraces the thoughts and observations of the Indiana Environmental Institute, Inc. as a practical critique of the problems that are inherent in this rule.

For many months, we have been expressing our concern about the draft rule, not only because of its uncertain economic cost, but also because it is flawed in several significant aspects. The IUG strongly urges a reasonable, practical and effective program that is conservative in its effect on agency budgetary limitations and the general fragile nature of the economy.

LEGAL/REGULATORY ANALYSIS

1. The Clean Water Act Delegates To States The Authority To Develop & Adopt A Statewide Anti-Degradation Policy That Effectively Protects Surface Waters In Indiana Without Harming Business & Industry.

The Clean Water Act requires Indiana and all other states to develop and adopt their own antidegradation policies and identify the methods for implementing such a policy.[1] Indiana's antidegradation policy must be submitted to the United States Environmental Protection Agency ("USEPA") for final approval.[2] U.S. EPA must approve each state's antidegradation policy to be sure it is consistent with the Clean Water Act ("CWA"), protects designated water uses, follows legal procedures for revising or adopting standards, is based upon appropriate technical and scientific data and analyses, and is consistent with other specialized requirements.[3] The state should submit an antidegradation policy that meets these requirements in a more balanced manner than what is provided by the draft rule.

2. Indiana's Antidegradation Rule Violates State Rule-Making Standards.

[1] 40 CFR 131.12.
[2] 40 CFR 131.5 (b)
[3] *Id.*

The Indiana code lays out a simple straight forward test that must be met when rules are adopted.[4] Among other requirements a rule must: (1) minimize expenses to regulated entities required to comply with the rule, ***to consumers of products and services of regulated entities affected by the rule*** (emphasis added) and to taxpayers responsible for government services affected by the rule; (2) achieve the regulatory goal in the least restrictive manner; (3) avoid duplicating standards found in federal laws (e.g., the temperature variance program under the Clean Water Act §316(a); (4) be written for ease of comprehension; and (5) have practicable enforcement. As will be demonstrated below, the draft rule fails to meet each of these important requirements.[5]

Our proposed amendments will work to revise the rule in manner that will minimize expenses to regulated entities while ensuring that business and industry will take measures resulting in compliance with the rule. These amendments result in a version of the draft rule that effectively protects the quality of surface water, while not creating a burden on business and industry that stifles economic development without achieving any discernable policy objective. Additionally, the IUG's proposed amendments provide greater clarity for the public allowing for a better understanding of the regulations in the draft rule, while establishing an antidegradation implementation program that is easy to predict and apply.

3. <u>The Draft Rule Fails to Clearly Identify the Regulated Entities</u>

As written, the draft rule fails to clearly identify the regulated entities, creating a problem for both IDEM and confusion for the regulated community and the public. The antidegradation rule may be invalidated for being unconstitutionally vague if ordinary people cannot understand the conduct it prohibits or if it authorizes or encourages arbitrary or discriminatory enforcement. *Brown v. State*, 868 N.E. 2d 464, 467 (Ind. 2007). As written, the rule fails to clearly define its targeted pollutants or sources and is therefore not understandable to the ordinary person and it encourages arbitrary or discriminatory enforcement.

This problem can be solved by looking at the following U.S. EPA approved Region V programs: Illinois, Michigan, Minnesota, Ohio, Wisconsin and the Great Lakes System, which all limit the antidegradation implementation to regulated point and nonpoint sources holding permits or enforceable authorization. IDEM should follow its example and create a definitive scope for the antidegradation rule. The IUG proposes the following suggested language revision:

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[4] See Ind. Code § 13-18-3-2(a), requiring compliance with I.C. § 4-22-2-19.5
[5] *Id.*

327 IAC 2-1.3-1 Applicability of antidegradation standards and implementation procedures

Sec. 1. (a) The antidegradation standards established by this rule apply to all surface waters of the state.
(b) Except as provided under section 4 of this rule, the antidegradation implementation procedures established by this rule apply to a proposed new or increased loading of a pollutant of concern to a surface water of the state as regulated by the NPDES program for point sources and authorized BMPs for nonpoint sources and which results in a modification to the authorization for discharge because of an increased loading.

4. The Draft Rule Fails to Identify Regulated Pollutants of Concern and Water Quality Criteria

The draft rule fails to adequately identify regulated "pollutants of concern" and water quality criteria. This problem can be solved by looking at the following U.S. EPA approved Region V programs: Illinois, Michigan, Minnesota, Ohio, Wisconsin and the Great Lakes System, which all identify the regulated pollutants of concern and tie those to established water quality criteria. IDEM should not include the term "narrative statements" in the definition of "criterion" in 327 IAC 2-1.3-2(14). Narrative statements are generally subjective conditions (odor or color that produces a nuisance) that have not been explicitly defined and do not lend themselves to the pollutant by pollutant antidegradation analyses stated in the rules. IDEM must follow its example and clearly identify regulated pollutants of concern and water quality criteria. The IUG proposes the following suggested language revision:

(14) "Criterion" or "Criteria" means a definite numerical value promulgated by the board to maintain or enhance water quality to provide for and fully protect designated uses of the surface waters of the state. (Also, eliminate all references to "value" in the rule as it is undefined. In each instance the term "value" is matched with the term "criteria" or "criterion". The term "value" is incorporated into the definition of "criterion" or "criteria" and its use is unnecessary and creates the question as to what the term is referring to if used in addition to "criteria" or "criterion.")

(43) "Pollutant of concern" means a pollutant that is regulated as a water quality standard, a water quality- based effluent limit, a technology-based effluent limit, a regulated BCC, a regulated toxic substance or regulated within a BMP. Reasonably expected to be present in:

(A) a discharge based on the source and nature of the discharge; and
(B) the receiving water in sufficient amounts to have a potentially detrimental affect on the designated or existing uses of the receiving water.

(60) "Toxic substances" means substances specifically regulated by the agency that are or may become harmful to:
(A) aquatic life;
(B) humans;
(C) other animals;
(D) plants; or
(E) food chains;
when present in sufficient concentrations or combinations. The term includes those substances identified as toxic under Section 307(a)(1) of the CWA.

5. Best available demonstrated control technology or (BADCT") must be a reasonable standard.

The draft rule fails to provide a reasonable standard for best available demonstrated control technology or ("BADCT"). This problem can be solved by looking at the following U.S. EPA approved Region V programs: Illinois, Michigan, Minnesota, Ohio, Wisconsin and the Great Lakes System, which all indicate that all programs identify the need to apply technology that is reasonably available, currently available, or cost effective. IDEM must follow their example and provide a reasonable BADCT standard. The IUG proposes the following suggested language revision:

327 IAC 2-1.3-3(b)(2)(B) The highest statutory and regulatory requirements applicable to the permitted facility for all new and existing point sources which have been adequately demonstrated and which are reasonable available to the discharger are applied.

The same changes need to be reflected in 327 IAC 2-1.3-3(c)(2)(B) and (3)(B).

Also, an actual listing within the rule as to what constitutes BADCT is not recommended since such technologies will change with time, rendering the rule readily outdated.

6. Justification for the Determination that Air Pollution Control Equipment impacts on Water Quality should meet the important social factors test.

Air pollution control equipment, designed to meet state and federal air regulatory requirements, that impacts water quality should be deemed to meet the important social factors test. In order to accomplish this objective, the IUG suggests that IDEM remove from the exemptions language the provision found at 327 IAC 2-1.3-4(b)(4)(C) as the regulated community is not seeking an exemption from antidegradation review of the water quality impacts assessment related to the installation of air pollution control equipment.

Instead the regulated community is seeking a determination, by rule, of only one portion of the antidegradation demonstration which concerns economic and social importance. The regulated community is not seeking avoidance of the water quality analysis required under the antidegradation program.

The determination by rule language suggested by the IUG is provided as follows:

327 IAC 2-1.3-6

(c) In determining whether a proposed discharge is necessary to accommodate important economic or social development in the area in which the waters are located under antidegradation standards and implementation procedures, the commissioner:
(1) must give substantial weight to any applicable determinations by governmental entities; and
(2) may relay on consideration of any one (1) or a combination of the factors listed in subsection (b)(15), and
<u>(3) must consider as important economic and social development any new or increased loading necessary to accomplish a reduction of a regulated air pollutant in which all reasonable methods for minimizing or preventing the new or increased loading have been taken.</u>

7. <u>The definition of "Toxic Substances" should be clarified</u>

As written, the definition of "Toxic Substances" is unconstitutionally vague and it is not possible to ascertain which substances are "toxic substances". To clarify this point the IUG suggests the following language:

(60) "Toxic substances" for the purposes of antidegradation implementation means substances <u>specifically regulated by the agency</u> that are or may become harmful to:
(A) aquatic life;
(B) humans;
(C) other animals;
(D) plants; or

(E) food chains;
when present in sufficient concentrations or combinations. The term includes those substances identified as toxic under Section 307(a)(1) of the CWA.

8. Indiana's "De Minimis" Test Should Be Similar To Wisconsin's Test That Was Approved By U.S. EPA.

On this issue, the draft rule fails to accomplish its regulatory objective in the least restrictive manner. U.S. EPA's policy reasoning for allowing certain increases to be considered de minimis is to reduce the administrative citations and penalties associated with activities that do not negatively impact the environment.[6] The de minimis policy allows state environmental regulatory agencies to focus their oversight efforts on activities resulting in harm to the environment.[7] As a part of U.S. EPA's de minimis policy, the agency has delegated the authority to the state to determine what is de minimis.[8]

The de minimis model Indiana should consider replicating the one used in Wisconsin. Wisconsin's test provides that degradation is considered significant and beyond a de minimis level from a new or increased discharge if it results in an expected level greater than one-third of the assimilative capacity for any indicator parameter other than dissolved oxygen. This test accounts for all new or increased discharges and any changes in assimilative capacity over time. The Wisconsin de minimis test is easily understood by regulators, the regulated community, and the public. Also, it achieves the policy objective in a manner that minimizes expenses to regulated entities in their efforts to comply with the rule.

The draft rule de minimis test is significantly more complicated, convoluted and burdensome than the Wisconsin rule's de minimis test. The IUG would support amending the draft rule's de minimis test to mirror the Wisconsin test approved by the U.S. EPA.

9. The Draft Rule's Antidegradation Demonstration Requirement For Exemptions Is Excessively Burdensome & Beyond What Is Necessary To Achieve The Regulatory Objective.

The draft rule's demonstration is unnecessarily burdensome and onerous. Antidegradation exemption demonstrations are generally designed to determine whether an action proposed by the discharger that will result in a significant

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[6] Water Quality Guidance for the Great Lakes System: Supplementary Information Document (SID), EPA 1995 ("Guidance"), p. 183

[7] Memorandum regarding Tier 2 Antidegradation Reviews and Significant Thresholds, Ephraim S. King, Director Office of Science and Technology, EPA, (August 10, 2005) (hereafter the "King Memo") p.2

[8] Water Quality Guidance for the Great Lakes System: Supplementary Information Document (SID), EPA 1995 ("Guidance"), p. 183

lowering of water quality is both necessary and will support important social and economic development.

The antidegradation demonstration application section for exemptions requires an exhaustive amount of extremely detailed information. Once that information is submitted, the commissioner must determine whether the application for the exemption is complete. When the application is deemed complete, the commissioner shall determine whether to approve or deny the request. The rule should include some efficiencies for exemptions based upon the thorough preliminary determination that the exemption fits within the antidegradation goals, as opposed to during the exemption applicability process after the rule is finalized.

10. <u>CWA 316(a) Variances are Not Subject to Antidegradation Review by Law</u>

The draft rule must, as a matter of law, recognize that CWA§316(a) takes precedence over antidegradation review. IDEM's Response to Comment document posted in the *Indiana Register* on December 16, 2009, DIN: 20091216-IR-327080764SNA, incorrectly states that "The 316(a) variance does not include a review of alternatives that would eliminate or reduce the need or the effluent limits that exceed the WQBELs for temperature." IDEM is directed to the language of The *Water Quality Standards Handbook: Second Edition, Chapter 4* which provides as follows:

> The requirement for potential water quality impairment associated with thermal discharges contained in section 131.12(a)(4) of the regulation is intended to coordinate the requirements and procedures of the antidegradation policy with those established in the Act for setting thermal discharge limitations. Regulations implementing section 316 may be found at 40 CFR 124.66. **The statutory scheme and legislative history indicate that limitations developed under section 316 take precedence over other requirements of the Act.**

<u>TECHNICAL ANALYSIS</u>

The following analysis, conducted by ENVIRON for the IUG and IMA, is designed to demonstrate the difficulties that are inherent in the draft antidegradation rule as the result of failure to clearly define the scope of the rule. By taking examples and working through those as if the draft rule were law, these examples demonstrate the tangible obstacles that render this draft rule unimplementable and therefore unlawful. As will be further supplemented in later comments concerning the extreme economic burdens of this rule, the IUG urges fiscal responsibility and concerns for economic development to be

assessed to assure a comprehensive environmental strategy in the best interests of Indiana. The IUG urges revision of this rule to make it more reasonable.

ISSUE #1 - Determination of Bright Line for Agency Antidegradation Actions

EXAMPLE A - Industrial facility permitted as a direct discharge to waterbody

DELIBERATE ACTION: Installation of Wet Air Pollution (WAP) Control Device

The current permit has limits for:
A) parameters used to assure effective wastewater treatment (via WWTP) for that type of industry (e.g., USEPA BAT effluent limits). The parameters do not have corresponding water quality criteria as they are 'surrogate' parameters (i.e., BOD, COD), not specific chemicals
B) pH to assure protection of designated use of receiving water
C) a metal to assure protection of designated use of receiving water
D) whole effluent toxicity to assure protection of designated use of receiving water
E) temperature based on 316(a) = alternate temperature effluent limits

The current permit has monitoring requirements for:
A) flow
B) chloride

The current permit and effluent quality are such that the designated aquatic, human health, and wildlife use are protected.

The WAP Control Device will increase flow to WWTP resulting in an increase in discharge flow.

QUESTION: Will the deliberate action of installing a WAP control device, thereby increasing effluent flow, trigger an antidegradation review/demonstration?

After installation of the WAP control device, all current technology-based permit limits will still be met and the WWTP is designed to handle the additional incremental flow. The BAT parameters will remain the same existing effluent concentration, however, the corresponding existing effluent mass will increase. To assure attainment of WQBELs for the metal and WET, the facility is installing a wastewater (source) pre-treatment unit, therefore, the mass of metal will not go up. The remaining parameter of concern is chloride which will result in an increase in existing concentration and mass.

ANSWER: The need for an antidegradation review/demonstration depends on the agency definition of the bright line for the de minimis calculation. Antidegradation can be triggered if the bright line is existing effluent mass, but not triggered if the bright line is the permit limit (WQBEL) expressed as mass.

This is demonstrated numerically as follows:

Assume the following for a High Quality Water:

Upstream River Flow	5	MGD
Upstream (Background) Concentration	25	mg/L
Chronic Water Quality Criterion	230	mg/L
Effluent Limit (mo. avg - no mixing zone)	162	mg/L

CASE 1: BRIGHT LINE IS EXISTING EFFLUENT QUALITY

Facility Existing Conditions before WAP		
Effluent Flow	1	MGD
Effluent Concentration = Existing	110	mg/L
Effluent Load	917	lb/d
Facility Proposed Conditions after WAP		
Effluent Flow with 0.5 mg increase	1.5	MGD
Effluent Concentration = Projected	155	mg/L
Effluent Load	1,939	lb/d
Antidegradation Deminimis Evaluation		
Total Loading Capacity (TLC)	11,509	lb/d
Background	1,043	lb/d
Effluent Prior to Increase	917	lb/d
Baseline Unused Loading Capacity (ULC)	9,549	lb/d
Loading Increase	1,022	lb/d
Percentage of Baseline ULC	10.7	%
Remaining ULC after Increase	8,528	lb/d
Percentage of Baseline ULC	89	%
Test 1: Loading Increase < 10% ULC?	Fail	
Test 2: Remain ULC > 75% of Baseline ULC?	Pass	

In Case 1, the bright line is an existing effluent mass of 917 lb/day (110 mg/L at 1 MGD). Addition of the WAP Control Device causes the effluent concentration to increase to 155 mg/L with a corresponding increase in flow of 0.5 MGD. This results in a projected effluent mass of 1,939 lb/day (155 mg/L at 1.5 MGD) representing an increase of 1,022 lb/day. Since this loading increase is greater than 10% of the unused loading capacity, the discharge does not meet the de minimis exemption and an antidegradation review/demonstration is needed despite the fact that the chloride WQBEL (162 mg/l) is still met.

As an extension of this case, if the projected effluent concentration after WAP installation was greater than 162 mg/L (say 170 mg/L instead of the 155 mg/L shown above), then additional engineering controls would be necessary to reduce chloride concentration to the lesser of the WQBEL or the level where the de minimis increase is less than 10% of the unused loading capacity. In other words, the de minimis exemption could drive the level of engineering control as opposed to the water quality use protections that are expressed as the applicable WQBEL.

CASE 2: BRIGHT LINE IS EFFLUENT LIMIT

Facility Existing Conditions before WAP		
Effluent Flow	1	MGD
Effluent Concentration = Limit	162	mg/L
Effluent Load	1,351	lb/d
Facility Proposed Conditions after WAP		
Effluent Flow with 0.5 mg increase	1.5	MGD
Effluent Concentration = Limit	162	mg/L
Effluent Load	2,027	lb/d
Antidegradation Deminimis Evaluation		
Total Loading Capacity (TLC)	11,509	lb/d
Background	1,043	lb/d
Effluent Prior to Increase	1,351	lb/d
Baseline Unused Loading Capacity (ULC)	9,116	lb/d
Loading Increase	676	lb/d
Percentage of Baseline ULC	7.4	%
Remaining ULC after Increase	8,440	lb/d
Percentage of Baseline ULC	93	%
Test 1: Loading Increase < 10% ULC?	Pass	
Test 2: Remain ULC > 75% of Baseline ULC?	Pass	

In Case 2, the bright line effluent concentration prior to the WAP installation is set the maximum allowed level, that is, the WQBEL of 162 mg/L with a corresponding mass of 1,351 lb/day (162 mg/L at 1 MGD). After WAP installation, the effluent concentration does not increase beyond the 162 mg/L WQBEL; only the 0.5 MGD flow increase results in an increase of effluent mass to 2,027 lb/day (162 mg/L at 1.5 MGD). The increased load of 676 lb/day is less than 10% of the unused loading capacity, hence, the discharge meets the

de minimis exemption and no antidegradation review/demonstration is necessary.

EXAMPLE B - Industrial facility permitted as a direct discharge to water body

DELIBERATE ACTION: Installation of Cooling Towers to meet requirements of 316(b)

This deliberate action will result in a significant decrease of effluent flow, a decrease in temperature, and an increase in the mass of some metals, hardness, chloride, sulfate, TDS, and TSS.

- TSS is subject to technology-based effluent limits (as mass) and the installation of cooling towers will not cause a change to the TSS limit which can be attained.

- Copper mass will not increase, although the copper concentration will cycle up (copper concentration levels remain less than corresponding WQBEL)

- Zinc mass will go up due to use of corrosion inhibitors; concentration must be controlled at WQBEL (would need limit)

- Chloride mass will not increase, although chloride concentration will cycle up (chloride concentration levels remain less than corresponding WQBEL)

- Sulfate mass and concentration will both go up due to pH control using H2SO4 (sulfate concentration levels remain less than corresponding WQBEL)

- TDS and hardness have no water quality criteria

Since typical effluent concentrations prior to cooling tower installation are well below WQBELs, it is critical that the bright line be established at the new permit limit or modified (increased) permit limit as opposed to the existing effluent concentration since several of the parameters will increase concentration due to cooling tower cycle up and water treatment processes. If the corresponding mass increase exceeds de minimis levels, then an antidegradation review/demonstration would be necessary. Conversely, to avoid such demonstration, de minimis restrictions could control the level of treatment and/or cooling tower operations as opposed to WQBELS.

SUMMARY:

The bright line for evaluation of the antidegradation de minimis exemption should be established as applicable permit limits as opposed to existing effluent concentration/mass prior to a deliberate action since:

- Existing effluent concentrations can penalize good performers. For example, a discharger with a permit limit of 20 ppb and existing effluent quality of 19 ppb would be less likely to be subject to antidegradation review/demonstration than if it was discharging at 5 ppb due to the de minimis restriction of 10%
- For existing effluent quality, it is difficult to develop an across-the-board / applicable-to-all statistical methodology for calculating monthly averages and daily maximums. For example, batch and campaign facilities all can have highly variable mass and concentration over a month and year, and production on-demand facilities can have highly variable mass and concentration over a couple of years.
- For zero flow streams, the bright line is critical. Otherwise any increase in existing effluent quality would trigger a full-blown antidegradation demonstration as the total loading capacity would be "equivalent" to the effluent load. Further, it is unclear by what mechanism and/or administrative process the antidegradation demonstration would be processed given that a permit modification may not be needed or required.
- The bright line would make it clear to all parties what type of deliberate action and resulting increase would have to go through antidegradation review.
- The bright line allows facilities to approach projects from the beginning knowing what to evaluate for technologies and what engineering controls need to achieve.

ISSUE #2 - Vague Definition of "Pollutant of Concern"

The draft antidegradation rule specifies the definition of "pollutant of concern" as:

"Pollutant of concern" means a pollutant that is reasonably expected to be present in:
(A) a discharge based on the source and nature of the discharge; and
(B) the receiving water in sufficient amounts to have a potentially detrimental effect on the designated or existing uses of the receiving water.

As a historical reference, pollutants of concerns have been more specifically defined (i.e., tabular list of parameters from the Federal GLI regulations, parameters with corresponding water quality criteria from previous Indiana

rulemaking, etc.). For the antidegradation rule, it is again necessary to focus the definition over what is given above since:

- There is a technical dilemma on how to calculate total loading capacity when there is no water quality criterion or other maximum allowable level.
- There is question on how to determine a "potentially detrimental effect" if there is no analytical process (i.e., a criterion) to link an effect to a chemical. For example, if one defines a "potentially detrimental effect" as excessive algal blooms, there is no tie between cause and effect relative to antidegradation because a specific chemical/parameter has not been defined. Certain metrics (such as IBI scores) may also reflect "potentially detrimental effects", however, these values cannot serve as the basis for further antidegradation evaluation.

ISSUE #3 – Determination of Total Loading Capacity for Various Receiving Water Flow Regimes

The draft antidegradation rule specifies the definition of "total loading capacity" (TLC) as:

"Total loading capacity" expressed as a mass loading rate for the water body in the area where the water quality is proposed to be lowered means the product of the applicable water quality criterion multiplied by the:
(A) sum of the existing effluent flow, the proposed new or increased effluent flow, and the stream design flow used in the calculation of the WQBELs; or
(B) alternate mixing zone volume approved for a discharge.

The draft regulation needs clarity on the procedures to calculate the TLC for both rivers and lakes. A single parameter can have several "applicable water quality criteria" based upon designated use (i.e., acute aquatic life, chronic aquatic life, human health wildlife). For WQBEL calculation several types of stream design flows are utilized based on the type of water quality criteria (i.e., 7Q10, 30Q10, Q50). The question for de minimis evaluation is: which criterion and which flow are appropriate for a receiving stream or lake? Further, what happens when an alternate mixing zone has been implemented in a stream or lake?

Typically (and as shown in the chloride example in Issue #1 above), the TLC has been determined as the product of a chronic criterion and 7Q10 river flow (using appropriate conversion factors). This approach is suitable for streams with appreciable flow, that is, a 7Q10 greater than zero. However, when the 7Q10 flow becomes very large relative to the effluent flow, effluent limitations become driven by acute criteria, primarily the final acute value (FAV) which is met at end of pipe when there is no mixing zone. There is a concern that in this situation, the total loading capacity might be determined as the FAV times the effluent flow and that effectively no de minimis exemption would exist. Also,

for a large river, if the discharge has applied an alternate mixing zone, the total loading capacity may be determined as the chronic criterion times the effluent flow times the mixing zone. In this case, the total loading capacity in a stream with an alternate mixing zone may be significantly less than the total loading capacity derived from the full stream design flow thereby reducing the potential for a de minimis exemption.

Similarly, for zero flow streams, the TLC may be determined from the chronic criterion times the effluent flow, again effectively negating the de minimis exemption. This situation is analogous to a lake discharge (which has no stream design flow). Additional total loading capacity for lake would only exist if an alternate mixing zone is applied.

All of the above scenarios promote the need to clarify IDEM's procedures for calculating total loading capacity to streams of various design flow where the type of criteria controlling permit limits can vary. A summary of conceptual proposed procedures is as follows:

Scenario #1:
Stream flow = large
Effluent flow = large
Controlling criteria = chronic
Mixing Zone = No
Possible IDEM interpretation of TLC = 7Q10 x chronic criterion
Proposed interpretation of TLC = 7Q10 x chronic criterion

Scenario #2
Stream Flow = large
Effluent flow = small
Controlling criteria = acute
Mixing Zone = No
Possible IDEM interpretation of TLC = Effluent flow x FAV (no deminimis exemption)
Proposed interpretation = 7Q10 x chronic criterion

Scenario #3
Stream Flow = large
Effluent flow = small
Mixing Zone = Yes
Possible IDEM interpretation of TLC = Effluent flow x chronic criterion x MZ
Proposed interpretation = 7Q10 x chronic criterion

Scenario #4
Stream flow = zero
Effluent flow = large or small
Mixing Zone = No
Possible IDEM interpretation of TLC = Effluent flow x chronic criterion (no de minimis exemption)
Proposed interpretation of TLC = Effluent flow x chronic criterion (no de minimis exemption)

Scenario #5
Receiving water body = lake
Effluent flow = large or small
Mixing Zone = No
Possible IDEM interpretation of TLC = Effluent flow x chronic criterion (no de minimis exemption)
Proposed interpretation of TLC = Effluent flow x chronic criterion (no de minimis exemption)

Scenario #6
Receiving water body = lake
Effluent flow = large or small
Mixing Zone = Yes

Possible IDEM interpretation of TLC = Effluent flow x chronic criterion x MZ
Proposed interpretation of TLC = Effluent flow x chronic criterion x MZ

In sum, the TLC should be based on the chronic criterion times the full stream design flow unless the discharge is to a zero flow stream or to a lake.

In conclusion, the proposed rule includes a number of vagaries and inefficiencies as enumerated above that all lead to an ill fated path of unnecessary expenditure of money, energy and resources in the form of litigation and misguided efforts at implementation. We urge a more reasoned rulemaking. The IUG is prepared to work closely with the agency to move Indiana in the direction of promulgating and implementing an antidegradation policy that is in the best interests of the state and supported by the Clean Water Act and relevant federal and state law.

Thank you for the opportunity to provide these comments. If you have any questions or concerns regarding our comments, please do not hesitate to contact me.

Very truly yours,

Stan Pinegar, President
Indiana Energy Association
On behalf of the Indiana Utility Group
(IUG)

Enclosure

INDIANA ENVIRONMENTAL INSTITUTE, INC.

150 W. Market St., Suite 020
Indianapolis, IN 46204
317-635-6018 (phone)
317-687-5139 (fax)
e-mail: inenviro@iquest.net

Analysis of IDEM Draft Rule
Antidegradation Implementation Rule

Bill Beranek
December 16, 2009

Regular type is my attempt to state or paraphrase proposed regulation
Italics are my comments.

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Revision to 327 IAC 5-2-11.2

The Institute is a nonadvocacy organization that promotes environmental quality by helping parties understand each other's positions and preferences in technically complex environmental matters. The Institute neither promotes nor opposes any particular policy position. This analysis is written from a perspective different from any side. It is trying to provide a clear, common understanding of what the text says and its implications in order that the interested parties can engage more constructively. I am solely responsible and I welcome comments.

B. Rule 327 IAC 2-1.3 Antidegradation Standards and Implementation Procedures

1.Applicability (327 IAC 2-1.3-1)

a) all surface waters of State
b) "proposed new or increased loading of a pollutant of concern to a surface water of the state"
c) for NPDES "general permit"
after IDEM "antidegradation review" of existing general permits, activities covered by the general permit require no additional antidegradation review

c (1) IDEM shall review antidegradation for all general permits
c (2) The Water Board may modify general permit rules
c (3) After the IDEM review is "conducted," no cases-by-case antidegradation review of discharge using general permit is required

Issue 1 "pollutant of concern" as target classes of substances to which this rule applies
Due to an ambiguous definition, this class of substances can be credibly argued in Court to either be some large as to include every chemical compound or mixture of substances or so small as to be a null set. Since this is the substance to which the rule applies, this is critical matter. See discussion under definition of "pollutant of concern."

Issue 2 antidegradation compliance for activities under Indiana general NPDES permit

The challenge of failure of the Water Pollution Control Board to have made an antidegradation determination for any of its NPDES general permits except for the CAFO permit is a significant one that IDEM and the Water Board have long ignored. Simply put, all general NPDES permits need to have an appropriate antidegradation determination by the issuing body and then be approved by USEPA. The Water Board has issued by regulation (327 IAC 15) eleven NPDES general permits of two different types. For all but one it has made no antidegradation determination arguably leaving that determination to be made when a particular discharger notifies the agency of the intent to use a general permit. Such a case-by-case determination would defeat one purpose of the general permit of timely and efficient issuance of routine permits with standard conditions. So what this 1 c) provision addresses is an absolutely critical policy issue that has not been addressed by several Administrations of IDEM and Boards. However the solution in this draft rule taken according to its minimal implementation does not work and, even if it did, this provision of state law directing a one-time action by IDEM is unnecessary and inappropriate to repeat in regulation.

- *Tthis draft rule general permit text is inappropriate language to include in a regulation – it is verbatim from General Assembly (which has recently changed its protocols to include what previously were noncode instructions to an agency now to be in code, a bad decision itself which will serve only to clutter the code with temporary instructions); since the language is in State law, it is in effect. There is no need to repeat into regulation all that is in State law.*

- *c(2) Why should the board put in its regulation instructions from the General Assembly to the board that it "may" modify a rule? That makes no sense as a regulation. Obviously the board may modify any regulation it promulgated; that authority is clear.*

- *c(1) Similarly, the General Assembly has already asked IDEM to do "a complete antidegradation review of the rules that authorize NPDES general permits," what is added by having the Board repeat that request that in regulation? Although the General Assembly gave IDEM no date by which to complete this task (and neither is there a date in this regulation), presumably the expectation of the General Assembly is that the task is to be completed well before this current 15-*

year antidegradation regulation revision rulemaking is finished (this process is just now yet at second notice). This review requested by the General Assembly could be performed in a month, long before the draft rule from the Board would be in effect. Thus the regulation would be requesting a second superfluous review. Is the intent of the board by including this to have IDEM then "complete" another antidegradation review after the one the General Assembly requested?

- *c(3) As for the last point about obviating need for site-specific antidegradation determinations, the second half follows logically if the State has performed the determination appropriately. If the Board and USEPA have determined through a public process that there can be no significant lowering if the conditions of the permit are followed, no case-specific antidegradation demonstration is needed. On the other hand, once the Board and USEPA have approved a general permit condition with significantly lowered water quality and demonstrated that that lowering is necessary to accommodate important economic or social development in the area, that demonstration never needs to be repeated.. The only decision on the table at that point is whether the State wishes for a particular entity to have a general permit or to have an individual permit. If the decision is individual permit, that would, of course, need to follow antidegradation rules individually. Unfortunately the first part of the statement is incorrect. It is not simply "conducting" and an "antidegradation review" that stops the need for any further site-specific antidegradation review of a party operating under a general permit. It is the successful demonstration (to USEPA) that the activity under the general permit conditions either will not cause significant lowering of water quality or that the activity and discharge is necessary to accommodate important economic or social development in the area.*

- *c(1) and c(3) My understanding is that IDEM's antidegradation review is of no relevance to USEPA in the absence of a formal determination by the Board through its rulemaking process that the permit conditions in each of its "general permits" either do not cause a significant lowering of water quality or, if they do, the activities with those discharges are necessary to accommodate important economic or social development in the area. The Board has done that for the CAFO general permit but not for others. As it stands now, the "general permits" under discussion have conditions established by the Board, not by IDEM, and therefore it is the Board that must make the required antidegradation demonstration.*

- *This is especially bad timing for putting into regulation permanent instructions regarding the term "general permit" because USEPA in recent years has been encouraging the State to change its scheme for the general permit from the current two types of "permit-by-rule" approach Indiana has used under Board jurisdiction to become an administrative general permit independent of Board action. There are advantages and disadvantages to this; USEPA historically has always been suspicious of States that uses citizen Boards to set regulations implementing the Clean Water Act. If IDEM is given that authority and chooses to issue a general permit administratively, then as a part of that process (with public discussion and appeal options) it indeed is IDEM that is responsible for the antidegradation demonstration to EPA, just as it is for any individual permit IDEM issues.*

- *Finally, while this regulatory language simply copies IC 13-18-3-2 (p) of HEA 1162 (2009 General Assembly) into the regulation, the new IC 13-18-3-2 (p) is inconsistent with IC 13-18-3-2 (q). The provision of (q) explicitly requires antidegradation demonstrations by all "applicants" for general permits.*

What is needed for the good of the Indiana is an expeditious review by IDEM and the Water Pollution Control Board of all general permits with respect to nature of the permit and the nature of antidegradation determination. The Water Pollution Control Board then must determine whether in no circumstances would there be a significant lowering by any discharger operating under a particular general permit. For those that would be expected to cause a lowering of water quality, the Water Board must determine by the technology test of requirements in the rule and socio-economic test that all the dischargers that follow the permit conditions would be necessary to accommodate important economic or social development in the area of the discharge. That demonstration in the

regulation (and perhaps the permit conditions in the regulation itself may need to be adjusted) would be submitted to EPA for its approval.

Alternatively, Indiana must convert all of its general permits-by-rule to IDEM-issued general permits. IDEM can make the appropriate antidegradation determination at the point of issuance. That would assure that the general determination is accomplished and no case-by-case antidegradation determination is needed.

2. Definitions (327 IAC 2-1.3-2)

Best available demonstrated control technology (BADCT)

i. discharge sanitary wastewater for
   CBOD, TSS, Ammonia, E. coli, D.O., Total residual chlorine
ii. alternative sanitary treatment IDEM set case-by-case limits
   (lagoon, land application, constructed wetland, CSO system)
iii. industrial direct discharge with fed effluent guidelines
   most stringent of
      new source performance standards
      best conventional pollutant control technology
      best available technology economically feasible
      best practicable control technology currently available
iv. categorical industrial indirect discharger
   meet existing fed requirements
v. non-categorical industrial direct or indirect
   -best engineering and professional judgment
- wastewater discharge from clean-up of "response action site" with VOC
vi. treatment equivalent to air stripping or carbon

(This tries to provide a valuable work-around to one of the fundamental policy issues in antidegradation – how much information is adequate for a technology demonstration and what should IDEM require be done to reduce the proposed discharge. This is a default that, if applicable and chosen, automatically answers both questions. The concept of BADCT is in theory a sound practical solution to the challenge of the limited resources of IDEM to perform rigorous professional evaluations of many different developing industrial and municipal treatment process options; it gives applicant the predictability of a default stretch technology to know that if they accept it as tighter than the calculated limit that they do not need to test and evaluate other options.

One deficiency as written is that the concept needs a mechanism and nonrule policy document to assure public confidence that the agency is indeed up-to-date with BADCT and technical judgments are made appropriately with substantiation. It is not clear that USEPA will consider all of the listed BADCT that are already required by federal law to be in the permit as equivalent to an alternative technology analysis for its antidegradation purposes; I could see that USEPA might consider a BAT that was just promulgated, for instance, to be the best possible and further study of an alternative of a technology of similar effectiveness and cost-effectiveness to be a fruitless exercise; for a 15-year-old BAT USEPA might consider that a review of alternatives to be needed. Ideally, the BADCT policy itself should be an EPA-managed antidegradation function worked out for economics for hundreds of processes simultaneously for consistent application across all states. A BAT determination for a single facility is an internally inconsistent concept when considering extra controls. What is the technology that is practical for 90% of the one company?

A second deficiency as written is the form of requiring "most stringent of" a list of four that are not of the same type. For instance, "New Source Performance Standard" technology is not evaluated by USEPA as suitable for retrofit, only for new facilities designed from scratch. Unlike BAT, some such technologies may be very expensive or even impossible to install after the facility has been built.

A better solution for Indiana is for IDEM to write out a nonrule policy document about how it plans to make the decision 1) to assure enough information has been provided about practical alternatives

and 2) to determine when a company should do more than BAT and WQBEL to limit its preferred discharge. That policy needs a means to supplement IDEM expertise to evaluate whether the alternatives submitted indeed are adequate and make sense.)

Degradation

Must be of "pollutant of concern"

For "high quality water" = significant lowering

The ambiguity of "pollutant of concern" strips this definition of usefulness. See discussion of its definition.

Discharge means discharge of pollutant of concern

- *This definition is not helpful. It is different than the definition in state law (a very old, very broad poor definition). It is also different than the definition in Article 5 where it means a "discharge of a pollutant." This draft changes it to pollutant of concern for antidegradation purposes and then defines pollutant of concern as a "pollutant" expected in a "discharge." Not only is that circular, it is not precisely matched. Pollutant of concern is now being defined as a pollutant reasonably expected to be in a discharge. Since a discharge is not a "discharge" in this section unless in fact there is a "pollutant of concern" being discharged, a pollutant of concern MUST be present in a discharge.*

- *Regardless, we know absolutely nothing more about either "discharge" or "pollutant of concern" than before the definitions other than when we are figuring out permit conditions in Article 5 with a discharge with a different meaning and where "pollutant of concern" is absent completely.*

Pollutant of concern

Pollutant reasonably expected to be present in

1) a discharge AND
2) receiving water in amounts with potentially detrimental affect [sic] on the designated or existing uses of the receiving water

- *The phrase "pollutant of concern" is unnecessary and only adds to potential conflict in interpretation later; wherever it is used, the word "pollutant" or "constituent" or even "substance" seems to work perfectly well. It has appearance of meaning something but it is used with no meaning. It seems to imply that the universe of pollutants is divided into those of concern and those not of concern. What pollutant is not of concern? That without a permit limit? That without mention in a permit? That without priority initiative by USEPA or by IDEM? That without news media attention? Whatever problem was being solved by sprinkling this new phrase through the regulation I am sure can be solved in a less obtrusive and more direct fashion.*

- *By the 1.3 definition," discharge" must have pollutant of concern in it because that is the sole defining quality of the word discharge; it is inconsistent for it here to be only "reasonably expected to be there.*

- *The second phrase in the definition also is not helpful. If the pollutant is reasonably expected to be present in [the] receiving water in amounts with potentially detrimental [e]ffect on the designated or existing uses of the receiving water, then is that not what we mean when we say "designated uses of the water are impaired" (327 IAC 2-1.3-3(a)(2)? And if that is the case is it not true that for the increase loading of pollutants teat are causing that impairment, none of the antidegradation implementation the regulation discusses applies. It just applies to receiving waters that have concentration of the pollutant known to be a "high quality."*

  So the phrase itself refers to a pollutant situation that can never be having the measures of this regulation apply to it.

- *A parallel term "chemicals of concern" was developed informally in ground water remediation but there it was simply either a temporary scaffold for policy discussion (holding idea that not all substances pose equal risk) that never was removed (and has no meaning beyond "substance") or used as the name of a list of the universe of chemicals with some toxicity and water solubility that we should be alert to analogous to the priority pollutant list or the hazardous substance list (as in asking for submission of a list of the "chemicals of concern" used at your facility).*

- *Note "existing use" here is redundant; never can a designated use be less stringent than an existing use; it can only be more stringent.*

- *Typo "affect" should be "effect"*

In summary, because are plausible legal argument can be made that a "pollutant of concern" could be anything and an equally plausible argument made that no pollutant could be included and a myriad of other arguments could be made for sets of pollutants in-between, this term not only has no useful; meaning but, as defined, it tees up unproductive legal battles on both sides.

This term is not used in Indiana water quality standard regulation and in water permit regulation. Identical concepts in both should be called by the identical terms. If there is gap in coverage of water quality standard law or implementation or water permit law or implementation, fix that problem there. Do not by broaden antidegradation with different terms to be nebulous catch-all.

This new phrase offers a hook for lawyers for dischargers to argue out of something that should otherwise be covered and for lawyers for remonstrators to argue for inclusion of something that the regular standard-setting and permit process would not.

Significant lowering of water quality

New or increased loading of pollutant of concern to surface water of the state that results

1) in an increase in ambient concentration of the pollutant of concern AND
2) the increased loading is greater than a de minimis lowering of water quality

This is captures several ideas well. However for the core idea of what is" significant," the definition simply states that another term for it is "de minimis" and then does not define de minimis. If a discharge is de minimis, the question of an antidegradation demonstration is moot because there is no significant lowering of water quality. De minimis later is used in the regulation only in an "exemption" for permit applicants from having to submit an "antidegradation demonstration application." It would be better if the regulation specified de minimis directly and not just as a special case. This is especially important if this implementation regulation applies to more than permit limits, as the regulation currently is.

Total Loading Capacity

Product of
[Water Quality Criterion]*[SUM Existing Effluent Flow+ New or Proposed Flow + Steam Design Flow]

Unused Loading Capacity

Difference between TLC at time of request less the loading of point and nonpoint sources

ULC based on "representative background concentration" determined by IDEM at time of each request to lower water quality

(Need to use "Tier 2 values" throughout instead of "values" when referring to Tier 2 values because that is what has been defined. Otherwise I am sure there will be a use of "values" that will pop up with other intended meanings

(Note that Tier 1 and 2 in this draft are called Tier I and II in Indiana Great Lakes Basin water standard and permitting regulations.)

I am confused why the detail of how the ULC background is calculated is included in the definition. The information should be in the permit part of the rule, not in the antidegradation part of the rule. In fact it really needs only be in a nonrule policy document but I can understand the argument for it to be in regulation. Here it is enough to list the ULC formula and when it is calculated. I would hope that it is not anticipated there will be a different calculation and manner of calculation for antidegradation than for the permit WQBEL.

Although I see nothing technically wrong with the general procedure referenced in another part of regulation, why reference in an antidegradation policy for the whole state to a procedure only in permit regulation in the Great Lakes Basin?

If it is left in, the "Representative background concentration" statement seems to say a lot but technically speaking it says little other than someone should determine the background "at the time of request." A single value for a "background concentration" is a philosophical concept and certainly one that is impossible to be "representative" if obtained at the time of request. Concentrations of pollutants from natural and human sources in the stream will vary greatly with season, with year and with each precipitation event in the watershed. Which one is the single value that is "representative?" In fact the WQBEL is calculated at the seven-day, ten-year low flow. Is that the water flow to be tested for a "representative" background?

This determination does not lend itself to regulation without intense study and discussion through nonrule policy documents. And it certainly does not belong in antidegradation. This is permit calculation.

3. Antidegradation Standard (327 IAC 2-1.3-3)

This draft is correct with respect to clarifying that the tier list is a mixture of two completing different types of waterbody categorization: 1) a waterbody assignment independent of water quality (tiers 2.9 and 3) and 2) a water quality determination independent of the waterbody assignment (tier 1 and 2). That critical nuance is often lost in IDEM explanation of the tiers to the public. The OSRW and the ONRW are waterbodies that are established by regulation as a place for special protection independent of its water quality; the HQW is a parameter-by-parameter condition of any water.

An even better way to describe this is in the regulation would be to say HQW "in" OSRW or not "in"OSRW. The regulation uses the construct HQWs that " are" OSRWs or "are no"t OSRWs. Lake Michigan might be a high quality water for chloride and an impaired water for mercury while always being an OSRW.

Note that this categorization in a regulation is further confused because not only is every Tier 2.9 and 3 water either a Tier 1 or a Tier 2 water for each of its pollutants, it is possible for a Tier 2.9 water also to be a Tier 3 water if both the federal government and the Indiana General Assembly consider the same water deserving of the category each assigns independent of the other. Currently there are no ONRW in Indiana although in the future it is theoretically possible for the OSRW waters off the National Lakeshore to be given that ONRW designation just like the waters off of Isle Royal National Park in /lake Superior.

(a) Tier 1 Water Quality in all water bodies (ONRW, OSRW, and neither)
No additional lowering of water quality where designated uses of water is impaired "with respect to the pollutants of concern that are causing the impairment"

- *Note that this use of "pollutant of concern" is consistent with definition but this use and the definition are completely circular.*

(b)Tier 2 Water Quality (i.e. high quality water) **except those waters in ONRW and OSRW**
"existing water quality for any parameter is "better" than the water quality criteria [sic] or value for that parameter" = high quality water for that parameter

- *Should be "Whenever existing water quality for any parameter as measured by the concentration is smaller than the water quality criterion or Tier 2 value set as the standard for the waterbody, that water is high quality water for that parameter. For water quality parameters not measured by concentration, the high quality water for the parameter is water quality better than the standard."*

- *Note that "pollutant of concern" is not a part of the current Indiana high quality water antidegradation standard.*

- *Need a category for BCC in Great Lakes Basin that is not OSRW and ONRW. Federal regulation requires antidegradation attention for BCC discharge into waters in Great Lakes Basin. E.g. could be same as the provision in this draft for BCC in Great Lakes in OSRW.*

- *Typo "criteria" should be "criterion" to match the number of "parameter" and "value"*

(c) Tier 2 Water Quality in an OSRW (i.e. HQW in Tier 2.9 Water Body)

1) BCC in OSRW inside Great Lakes Basin

"no new or increased loading of a BCC shall be allowed that causes a significant lowering of water quality of the OSRW"

"significant lowering of water quality" = "pollutant of concern" that raises ambient concentration and is above a de minimis

2)BCC in OSRW outside Great Lakes Basin

"no new or increased loading of a BCC shall be allowed that causes a significant lowering of water quality of the OSRW" unless "necessary to accommodate important economic or social development in that area"

Same antidegradation requirement as nonBCC in all waters, OSRW or not

3) nonBCC in OSRW in all Indiana waterbodies

"no new or increased loading of a BCC shall be allowed that causes a significant lowering of water quality of the OSRW" unless "necessary to accommodate important economic or social development in that area"

Same antidegradation requirement as nonBCC in all waters, OSRW or not

4) IN ADDITION to federal antideg std in 2 or 3

Indiana State law requires there to be an overall improvement in water quality by either

1) doing an activity to achieve that or
2) paying funds to the State who will then perform an activity to do that

- *Missing in this draft rule or in nonrule policy document – what is criteria for IDEM to decide that the proposed overall improvement project is described in enough detail and is likely to meet the overall improvement objectives? How should IDEM set the fee to the fund in order to be fair, consistent and appropriate?*

(d) **Tier 2 Water Quality in an ONRW** (i.e. HQW in a "Tier 3" waterbody)
Only temporary allowed

Two requirements

1) "all deliberate actions that result in new or increased loading from an existing or new discharger are prohibited."
2) Discharging to tributaries, prohibited if it allows increase in ambient concentration in ONRW

- *Provision one is inconsistent with allowing a temporary increase.*

- *Provision two is scientifically impossible to assess; many actions will cause this. This use of "discharge" is the federal definition (and that of Indiana water quality standards and permits) which is inconsistent with the definition in this regulation means only "pollutant of concern" which in turn means to have "potentially detrimental effect" on designated uses*

- *Note that a BCC provision for ONRW in Great Lakes Basin is missing in this draft for waters that are not also OSRW. Federal regulation requires attention to BCC in Great Lakes Basin state antidegradation policies.*

- *Note, no "pollutant of concern" is mentioned; that is wise in order to make this consistent with federal regulation and with Indiana water quality standard and permit regulations. It is wise policy, as discussed in analysis section on the pollutant of concern definition. However it is inconsistent with terminology of all the rest of this antidegradation draft.*

- *Note that a waterbody can be both an ONRW and an OSRW simultaneously as corrections are made (unless the problem is hardwired in federal regulation and not federal guidance), this language must be checked carefully to be certain it is clear to all parties the requirements and opportunities under that circumstance*

> **(e) Any thermal effluent limitation** decisions by commissioner in accordance with Section 316 of Clean Water Act "shall be considered to be" consistent with antidegradation standard contained in this section

4. Exemption from antidegradation demonstration requirements (327 IAC 2-1.3-4)

- *As matter of style, in the past IDEM has been told by USEPA that the federal antidegradation regulation has no category for "exemptions." Similarly, Indiana State law requiring the antidegradation demonstration has no provisions for "exemptions." Therefore, the manner of addressing activities for which the Board feels it unnecessary to request an antidegradation demonstration is simply to sort them according to the reasons that the Board feels that way. That categorization would parallel exactly the categories for the justification EPA would require of the "exemptions" but we need not use that term. Among the "exempt" situations are those that do not need antidegradation demonstration but need other explanation or demonstration similar to parts of the antidegradation demonstration.*

  Some of the "exemptions" are justified because the lowering of water quality is not significant. Instead of calling them exemptions simply list those activities that the Board feels do not need a written demonstration. Categorize them according to the reason.

  Most critically, "de minimis exemptions" are far more than a list of who does not need to do an antidegradation demonstration; here the draft regulation is in fact completing its definition of "significant lowering of water quality" on which the entire policy hinges.

- *While BCCs are mentioned in downstate regulations as a list, they do not have the same requirements on them as in Great Lakes Basin. This antidegradation treatment of BCCs (omitting from de minimis consideration and from temporary ONRW activities) may be consistent with Great Lakes Basin regulations but may not be consistent with nonGreat Lakes Basin rules. This becomes challenge when dealing with the ubiquitous mercury in sediments and waters.*

- *The title of this section accurately states that these listed situations relate to antidegradation demonstration requirements. Unfortunately, in the text of the regulation itself it slips from that clear and correct statement to saying the exemption does not apply to the antidegradation demonstration requirements as a whole or part but instead to the single component of filing particular type of specified application (section 6). This reference just to Section 6 is incomplete. Sometimes it seems what is meant is exemption from Section 3 and other times the exemption meant seems to be from Section 6 and 7 (and for some in turn Section 8).*

IAC 2-1.3-4(a) nonBCC ONRW exempt from Sec 6 application

Conditions to avoid particular antidegradation demonstration application requirements

- *These conditions are not so much a defense of an exemption as they are a specification of steps necessary to have a temporary degradation. Unlike IAC 2-1.3-4(b)(3)(C) which indeed is an exemption because, unlike ONRW, under these circumstances no mention otherwise has been made for the temporary excursion being different.*

- *As written this applies to Tier 1 and Tier 2 waters in the Tier 3 waterbody.* However, *just like draft regulation states in 4(b), this should apply only to HQW in ONRW, not to parameters that are Tier 1 water quality. This section should be for "HQW in an ONRW" to be consistent with usage in other parts of this section 4 and to be consistent with Section 327 IAC 2-1.3-3(a) Tier 1 water regulation.*

- *see my discussion of 2-1.3-(C) for analysis of the inappropriate sentence construct*

- *it should not be "short term, temporary, new, or increased discharges of non-BCCs" – that is not consistent with the 5 conditions listed; it should be something more like "new or increased short-term, temporary lowering of water quality of nonBCCs."*

- *"pollutant of concern" is not mentioned directly but is implied via use of "discharge;" this makes the regulation inconsistent with federal regulation which has a different definition of "discharge"; the federal government uses the same definition of discharge Indiana regulation uses in water quality standards and permit; there is no good policy reason for the basic Indiana ONRW regulation to differ at all from federal law*

IAC 2-1.3-4(b)(1)(A) HQW not in a ONRW

- *Section b(1) exemptions are load threshold exemptions from antidegradation demonstration "requirements". Some confuse these thresholds as having to do with what can be in a permit. The permit limit is set by WQBEL and BAT, whichever is most limiting. The WQBEL itself has stream-design constraints and dilution of at least one-half the low flow. The first discharger can use up "all" of unused loading capacity for the constituent. The next discharger gets a WQBEL based on the new unused loading capacity given all that is going on from permitted point sources (assume highest flow) and nonpoint sources and low-flow stream at that time plus the new effluent flow for the new person. That discharger is entitled as was the first discharger to the entire new increment of "unused loading capacity." And so on with each new discharger. The receiving water keeps getting larger and the unused loading capacity for each constituent keeps expanding with each new discharger. This happens in situations of dischargers being close together or those sharing a canal with no tributaries coming in. The usual situation, though, is that multiple dischargers are not close enough to affect each other or they have different critical constituents in which case they actually help each other.*

327 IAC 2-1.3-4(b)(1)(A)(i) new or increased loading of nonBCC that is de minimis
Exempt from particular Sec 6 application

- *A serious practicality defect in this draft is that the de minimis exemption is no longer based on a new or increased permit limit. This means the situation to which this policy may apply is not only at the time of a new permit application or of a permit modification but also it now may be applicable at any other time where a "significant lowering of water quality" occurs. This also means the policy is no longer restricted to substances with a permit limit but includes all other "pollutants of concern" that are present at concentrations for which a permit limit is unnecessary or inapplicable. Finally, for proposed increases, the base from which to measure the increase is no longer the existing permit limit concentration or load. That means the base could be argued to be "existing effluent quality." This is a concept long considered but never implemented due the complicated practical challenge of measuring it. The change is from the clear single number of what is "allowed" to the uncertain value of the "actual" experience at a particular time during previous years of permit under particular operating conditions. Should it be over a specific averaging time, or lowest day, or highest day or other? How is this enforced?*

  One implication for this draft regulation is that eliminating the permit limit as the focal point for the new or increased discharge eliminates the previous justification to USEPA of the class of "exemptions" that had to do with actual variations in loading day-to-day and year-to-year provided in the existing permit. In the existing regulation and previous drafts of the revision, all normal loading changes allowed in the permit were not a lowering of water quality for antidegradation purposes.

  The de minimis "exemptions" all presuppose the discussion is in the midst of establishing a permit limit for a defined set of substances as does the use of the outcome of this section. If the increase is not restricted to the permit process, not only does this greatly complicate antideg procedure

within the permit process but a new structure must be established and funded to address when the actual "significant lowering of water quality" (a regular occurrence given the ubiquitous and variable nature of the trace concentrations of the constituents potentially involved) triggers formal antideg attention by IDEM.

Starting the estimate of lowering of water quality in the antidegradation policy using new or increased discharge as being the new or increased permit limit eliminates all those new extraordinarily complex policy issues that now will need resolution.

This expansion of coverage to new situations will make the financial analysis of the draft regulation an especially difficult task .IDEM needs a nonrule policy document to establish implementation for wetlands, for changes of loading within permit, for runoff concentration variation, for the parameters such as nutrients that are cannot have toxicity-based limits at the load issues of concern, and for the many trace concentrations of chemicals without any significant aquatic toxicity date? What are the IDEM staff resources required to address all of the new antidegradation determinations? What are the costs to the regulated?

Finally, it is important to point out that Indiana statute as reaffirmed by HEA 1162 triggers the start of antidegradation consideration "for which a new or increased permit limit is required." (IC 13-18-3-2(l)). This draft regulation is inconsistent with State law.

327 IAC 2-1.3-4(b)(1)(A)(i) HQW not in ONRW, nonBCC

> **(AA)** Proposed net increase in loading of pollutant of concern is **< or = 10%** of existing unused loading capacity determined at the time of the specific proposed new or increased loading of the pollutant of concern
>
> > Existing unused loading capacity – established at the time of each request for a new or increased loading of a pollutant of concern

- *Suggest delete "net" - What is meaning of "net?" Are we not considering a single pollutant concentration at a single point in space and the concentration in the flow is higher? What does it matter if changes were made to reduce load from one location and increased at another compared to another? If "net" is to mean to account for contemporaneous reductions to ambient water due to sources external to the permitted discharge for purposes antidegradation, that should be made explicit.*
- *Suggest delete "existing" - What is the meaning of "existing"ULC? The ULC itself has a precise definition in this draft regulation saying it is done "at the time of request." This particular de minimis section further modifies it to say "determined at the time of the specific proposed new or increased loading of the POC." Adding "existing" adds confusion not clarity because by definition, there can never be an "existing" ULC. It is a temporary device to calculate a WQBEL which is one of components necessary to consider for the Compliance Effluent Limit.*
- *Suggest delete "specific" What is meaning of "specific"? If there is a specific nuance it is carrying, sentence should be recrafted to convey that more clearly. Draft does not include it in other de minimis situations.*

I suggest deleting each of these words. If deletion substantively changes the meaning that IDEM is proposing then restate to make that different meaning crystal clear. Doing this will allow the Board to say what it means directly.

(BB) 307(a) Toxic Substance – nonBCC <u>outside</u> Great Lakes Basin AND without water quality criterion
- use water quality value and proposed increase is **< or = 20%**

The toxic substance list itself is just five chemicals.

(CC) 307(a) Toxic Substance – nonBCC <u>inside</u> Great Lakes Basin AND without water quality criterion
- use water quality value and proposed increase is **< or = 20%**

- *The current 307(a) toxic substance chemicals these sections are referring to are ethylbenzene, isophorone, naphthalene, phenol and toluene. None are on the IDEM Great Lakes BCC list but the rule for BCC also includes broad test conditions that substances could meet to be included as BCC based on hydrophobicity. USEPA modified its BCC list during its rulemaking to account for absence of persistence and toxicity. I would guess all would be BCC by a straight hydrophobicity test but due to EPA rulemaking incorporating "of concern" they could also be nonBCC currently.*

- *Of these ethylbenzene, isophorone, and phenol have Indiana numeric water quality criteria.*

- *Therefore, if we assume toluene and naphthalene are a nonBCC, sections BB and CC apply only to toluene and naphthalene. If for some reason IDEM considers these two specific chemicals of special concern, for clarity I would suggest simply naming these two chemicals and have a nonrule policy document reminding people to change the rule when Congress changes Sec 307(a) of Clean Water Act. However, of the hundreds of thousands of potential chemicals needing very conservative Tier 2 values, I cannot think of a good reason to the relaxation of the 10% trigger to 20% for just to these two.*

(DD) "Benchmark unused loading capacity is equal to **75%** of the unused loading capacity established at the time of the permit issuance for the initial increase in the loading of the pollutant of concern."

- *DD is not an independent reason for de minimis as are the others in this section listing those reasons – it should be incorporated as a second sentence of EE.*

(EE) "For every request after the time of the permit issuance for the initial increase in the loading of the pollutant of concern, the unused loading capacity remaining after the net increase in the loading of the pollutant of concern must be greater than or equal to the benchmark unused loading capacity."

- *This is not the same type of condition as the first three but rather describes an underlying condition that must hold for each of the first three to be valid. Therefore it should either be formatted together in manner making it clear that both conditions (EE AND AA,BB or CC) must happen or start final bullet with something like "notwithstanding" and then state this condition in the inverse (it is not de minimis if later proposed discharge....) Such a restructuring and rephrasing will avoid confusion that the statement is not a prohibition exceeding the amount of ULC in a subsequent permit but just that if that is done then the antidegradation demonstration is needed. As worded it reads like an absolute prohibition.*

- *In a normal situation and if the WQBEL is the most constraining factor in the permit limit, the first discharge will have a pounds per day ULC equal to the pounds per day the maximum effluent water flow and low-flow stream could absorb without exceeding the water quality standard less the pounds per day in the intake water from the receiving stream. 75% of that is then the benchmark ULC. For a WQBEL-driven permit limit, the first discharge itself will then use all of the ULC less the amount that dilution from ¾ of the low-flow stream would have provided..*

- *If the second proposed discharge increases the effluent flow, the pollutant's actual ULC is increased for permit limit calculations but the benchmark ULC remains as small as the 75% of the original effluent flow plus the low-flow stream. Thus many dischargers with subsequent flows increase much larger than the initial discharge may have the flexibility on subsequent increases not to use the entire amount of the expanded ULC and thus stay below the threshold of leaving back a ULC value equal to 75% of the initial ULC at the first discharge.*

- *This policy seems to presuppose that the stream itself is the dominant dilution factor and contains critical ULC in itself. Around the country situations like that can exist. However, the chronic aquatic permit WLA calculation only allows use of one quarter of the seven-day, ten-year low flow to be used for dilution. Except for the Ohio River (where the dilution is so large that the acute standard at end of pipe sets the value with no concept of ULC), for most NPDES discharge situations into rivers and streams in Indiana, the size of the ULC will be more a function of the effluent flow size, not the stream. At normal flow and at high flow, of course, the surface waters will usually dominate, but the chronic aquatic permit conditions (and the ULC) are based on the drought event of the ten-year low flow, not normal flow. There is no dilution credit given for the normal flow of streams for chronic aquatic WQBELs, the usual standard that drives permits.*

327 IAC 2-1.3-4(b)(1)(A)(i) HQW not in ONRW, heat

For heat – de minimis – raise temperature of water in stream one degree Fahrenheit – no rise outside mixing zone

IAC 2-1.3-4(b)(1)(B)(i) for HQW that is not an ONRW but is in an OSRW nonBCC

(AA) Proposed net increase in loading of pollutant of concern is **< or = 1%** of existing unused loading capacity determined at the time of the specific proposed new or increased loading of the pollutant of concern.

Existing unused loading capacity – established at the time of each request for a new or increased loading of a pollutant of concern

(BB) 307(a) Toxic Substance – nonBCC <u>outside</u> Great Lakes Basin AND without water quality criterion
- use water quality value and proposed increase is **< or = 2%**

(CC)307(a) Toxic Substance – nonBCC <u>inside</u> Great Lakes Basin AND without water quality criterion
- use water quality value and proposed increase is **< or = 2%**

(DD)"Benchmark unused loading capacity is equal to **97.5%** of the unused loading capacity established at the time of the permit issuance for the initial increase in the loading of the pollutant of concern."

(FF)"For every request after the time of the permit issuance for the initial increase in the loading of the pollutant of concern, the unused loading capacity remaining after the net increase in the loading of the pollutant of concern must be greater than or equal to the benchmark unused loading capacity."

- *My comments on the previous section for nonBCCs in nonOSRW waters (***327 IAC 2-1.3-4(b)(1)(A)(i))** *apply here as well. Only difference is in the numeric values.*

- *The 97.5% ULC threshold remaining (from the initial ULC) any permit modification for an increase discharge means many more increase situations will require antidegradation*

demonstration. With any normal effluent flow, the first discharge would usually use more than 25% of the ULC (a value far lower than allowed by WQBEL) and would almost always use more than 2.5%. Subsequent increases of effluent flows will expand the ULC, giving the some dischargers with very large subsequent effluent flows flexibility to use less of a greatly expanded ULC than they would be entitled to under the WQBEL conditions if they wish to avoid the uncertainty of the antidegradation demonstration.

IAC 2-1.3-4(b)(1)(B)(i) for HQW that is not an ONRW but is in an OSRW - heat

For heat – de minimis – raise temperature of water in stream one degree Fahrenheit; Lake Michigan 0.5 billion Btu/hr – no rise outside mixing zone

327 IAC 2-1.3-4(b)(2) Exemptions with No Additional Information Required for Justification

Exempt from particular Sec 6 application

- *Initial phrases of b(2), b(3) and b(4) are poorly worded given the context of the sentence in which they are imbedded. It is written as a new sentence when it actually is a second part of a sentence starting with 2-1.3-4(b) as the first part..*

  Suggest: "2. Activity exemptions requiring no additional information to justify other than that information in the basic permit application
  3. Activity exemptions requiring additional information to accompany the basic permit application to demonstrate that the exemption is applicable
  4. Activity exemption requiring Section 5 justification by applicant

- *Note that unlike exemption 4(b)(1) which is for non-BCC only, all exemptions in categories b(2), b(3) and b(4) (except 4(b)(3)(E) which is only nonBCC and 4(b)(4)(B) which seems to be only for BCC) apply to BCC and non-BCC loadings alike. 4(b)(3)(E) is for increase in discharge of noncontact cooling water. The prohibition of this as an exemption for increase in BCC loading is an Indiana-only Great Lakes Basin concept now being expanded state-wide. Because mercury is a BCC and is in all surface waters, the most immediate implication of this is that the exemption is a null set.*

- *The category 2 (A) exemptions are the same type as are in the current Indiana Great Lakes antideg regulation. However, that regulation based the "increase" on the new or increased permit limit. This proposed revision (see exemption section 1) bases the increased instead on "new or increased loading," not on the permit limit. Under the permit limit mode, (A) is easily justified because there is no increase of a permit limit and thus no significant lowering. Under the current proposed revision, each of the six circumstances could trigger significant lowering. That in turn makes the "no justification needed" hard to defend.*

- *The 2(C) exemptions (new permit limit without change to effluent quality) is unnecessary under the revised way of measuring significant lowering without using the permit limit. The fact of a new permit limit of any type is irrelevant and thus this exemption is now irrelevant. If there is no increase in loading ipso facto there is no significant lowering. This exemption was only appropriate if the lowering was keyed off permit limits.*

- *The 2(D) exemption is also inconsistent with a significant lowering no longer keying off of the permit limit. This is for an increase in loading related to increase in load to a POTW "provided there is no increase in existing NPDES permit limit." If the significant lowering in section 1 is not related to the permit limit then this exemption directly contradicts section 1 trigger for antidegradation demonstration. It is the loading per se that triggers the significant lowering; this revision no longer keys it off the permit limit.*

- *Even 2(B) (allowed by-pass) seems to be relevant only in the context of allowed permit discharge and is hard to line up with the section 1 significant lowering criteria.*

I would recommend for this draft regulation that we stay with the State law direction of basing antidegradation on permit limit increases. I mention these discrepancies only to draw attention to the redrafting that would be needed if the regulation were to address both permit and nonpermit situations.

327 IAC 2-1.3-4(b)(3) Exemptions with Additional Information Required for Justification
Exempt from particular Sec 6 application

- *These "exemptions" are of types that seem to require the equivalent of a part of an antidegradation demonstration. The only difference is that it is not clear whether the public and commissioner determination protocols apply or if this is a straight component of the permit process itself.*

- *It would be good for there to be a guidance document at the time of the approval of the regulation explaining the nature and detail expected of the justifications for each of these section 3 exemptions.*

3(A) loading due solely to intake water increase and the intake waterbody is the same as the receiving waterbody

(this is a USEPA policy matter independent of whether significant lowering is by loading or by permit limit increase; since it parallels permit policy, it is likely USEPA will agree to it)

3(B)"a change in loading of a pollutant of concern" is due solely to municipal or industrial controls on wet weather flows including CSOs OR
An individual NPDEW permit for storm water associated with industrial activity

Where there is no net increase in a 10-digit watershed and all reasonable minimization is done.

- *This seems to be an important exemption only if the trigger for significant lowering is permit limit change; this covers two situations: 1) the new or increased discharge comes solely from redirection of existing storm water discharge now into a permitted discharge and 2) a completely new flow of storm water that had not been present before (e.g. replaced forest acres with flat roof buildings, drive ways and parking lots). The rationale for the first category is the same as 2(C) - the water quality of effluent has not increased, only change is the fact that there now is a permit limit; that does not need an antideg demonstration because there is no new loading being discharged overall. This is irrelevant if lowering is triggered off of loading alone although the same idea of a list of situations of no change in loading could be useful.)*

3(C) "short-term, temporary, new, or increased discharges"

- *this could apply to either permit limit or to loading;*

- *phrasing is grammatically inappropriate (same problem as in ONRW 2-1.3-4-a); as written the exemption applies equally well to four independent situations each described by the adjective and "discharges"*
  - *1) I am understanding from iii that the condition applies only if the situation is both short-term and temporary, not to a situation that is short-term but occurs with permanent frequency nor to a situation that is temporary (one-time) but is long-term. Therefore short-term and temporary must be coupled.*
  - *2) "new or increased" indeed are two separate situations that are each covered*

Therefore a better sentence would be "new or increased short-term, temporary discharge" or even better "new or increased short-term, temporary lowering of water quality" to make it consistent with iii. I believe you are less interested in the duration of the discharge than in the duration of the lowering of water quality. A permanent lowering of water quality through a temporary, short-term discharge should have an antidegradation demonstration.

- *Condition 3 (C) iv must be rewritten to specify the condition meant; as written it is internally inconsistent- As written it can only apply to 2-1.3-3(b) which in (b)(2) requires the condition of complying "with public participation and the provisions of section 6" – but it is "section 6" and only section 6 that the exemption here is from.*

3(D) loadings due to CERCLA, RCRA, UST actions

This works for either permit limit or straight loading as measure of significant lowering

3(E) noncontact cooling water without increase load of BCC and no temp increase outside mix zone and no WQBEL or WET

This works for either permit limit or straight loading as measure of significant lowering

3(F) non-BCC water treatment additive

This works for either permit limit or straight loading as measure of significant lowering although it traditionally is done in context of NPDES permit situation

- *What is timing and process for IDEM determination that the exemption is justified? What is adequate technical justification compared to that of the antidegradation application? Does BADCT work here for default? Regulation needs clarification or nonrule policy document must accompany this.*

327 IAC 2-1.3-4(b)(4) Exemptions Needing Section Five Justification
Exempt from particular Sec 6 application

4(A) Change in loading of pollutant of concern
with voluntary, simultaneous, enforceable decrease in actual loading of the pollutant of concern from sources contributing to 10-digit watershed
AND
with the result of a "net decrease" in the loading of the pollutant of concern in the same 10-digit watershed

- *Why not say "new or increased loading" instead of "change;" the only situations to which this applies are "new or increased loading"?*

- *If this is a permit situation, the permit governs protection of water quality at a particular location. This is a strange catch-all exemption. It says that a facility increasing discharge of a constituent at one stream can satisfy antidegradation by reducing more than that amount of loading at another stream in the same 10-digit watershed.*

4(B) New or increased loading of pollutant of concern
- "necessary" to reduce loading of another pollutant of concern
- efforts to minimize the increase AND
- there will be improvement in water quality
  = new chemical is
    less bioaccumulative AND
    less toxic

- *in fact "persistence" is the attribute that is far more important than either bioaccumulative potential and toxicity at this stage of water quality law development in United States; what is reason for limiting this exemption to reduction of compounds that have both bioaccumulative and toxic properties? Originally this was a Great Lakes Basin policy aimed at persistent, bioaccumulative toxic substances. That makes sense for that Basin (e.g. Lake Michigan with 100 year retention) but argument has not yet been made scientifically for downstate waters. This exemption should be for persistent bioaccumulative toxic substance in Great Lakes Basin and for toxicity downstate.*

4(C) New or increased loading of pollutant of concern that demonstrates:
- "necessary" to reduce air pollutant
- efforts to minimize the increase
- there will be an environmental improvement
  = "necessary" to "meet" state or federal air quality standard or emission requirement OR
  = substantial reduction in human exposure to a listed Hazardous Air Pollutant or "other air pollutants that are subject to state or federal air quality standards

- *Any criterion with term "necessary" requires a nonrule policy document before it can be clear what is expected by way of demonstration and how IDEM will decide*

4(D) New or increased loading of pollutant of concern from a sanitary wastewater treatment plant constructed or expanded to alleviate a public heath concern
Such as connecting existing residences with septic systems
"when all reasonable methods for minimizing or preventing the new or increased loading have been taken."

5.Exemption Justification Required under 4(b)(4)
(327 IAC 2-1.3-5)

(i.e. for activities with water pollution trading, air quality benefit or POTW eliminating septic system)

This exemption justification requires independent public notice of receipt and public meeting if requested by 25 living or working within same 10-digit watershed or within 15 miles of the discharge (see revised 327 IAC 5-2-11.2). Unlike the antidegradation demonstration application process, this justification public meeting is not automatic if the discharge is to OSRW.

- *Because the exemption justification is to be provided "concurrently with the application for a new, renewed, or modified NPDES permit" there is the implication that all 4(b)(4) exemptions apply to a lowering associated with a new or increased permit limit, not just with any loading causing significant lowering as in the section 1 policy in the draft regulation.*

- *Evidently, two of the section 4 exemptions (4(A) and 4(B)) evidently are thought not to be lowering of water quality due to the trading within the 10-digit watershed (therefore no socio-economic demonstration needed) but the technology demonstration is good to do. The two other (air quality and septic system removal) evidently are considered to have the "accommodation of important social or economic development" as established by the regulation due to the environmental or public health good and that the technology demonstration for reducing the lowering of water quality is all that is remaining to do.*

- *Implied but not stated is that IDEM must make a determination about whether this exemption is warranted. Is BADCT a default justification in the same way it is in the antidegradation demonstration? Is it anticipated that this technology demonstration is to be identical to that of the antidegradation demonstration of 2-1.3-6(b)(12 and 13) or of 2-1.3-6 (d)(2) or is it thought to be a different type of demonstration? Is it anticipated the process for public review would be a part of the permit process or would it be separate?*

- *5(b)(1) – why is discharge to ONRW missing? it would seem to me that should be automatic public meeting like for discharges to OSRW?*

6.Antidegradation Demonstration Application (327 IAC 2-1.3-6)

327 IAC 2-1.3-6(a) if not exempt from demonstration, need to justify why discharge is necessary "for providing a economic or social benefit in the area"

- *The draft rule language in 6(a) is not the justification needed for federal jurisdiction waters nor for State surface waters as established earlier in the regulations. What is needed from the Section 3 standards is "necessary to accommodate important economic or social development in the area in which the surface waters are located." At this point in the rule specifying the nature of the justification, it is inappropriate to change the standard. Note that Section 6(c) below describing commissioner decision returns to correct wording of the standard being decided.*

- *Need to change "section 4(b)(4)" to simply "section 4" – there are many, many other existing or proposed discharges that are exempt in addition to 4(b)(4); it is section 5 that is joined at hip with 4(b)(4).*

- *Actually, the requirement in this sentence should not be for an antidegradation demonstration application but rather for a successful antidegradation demonstration; the first step in achieving a successful antidegradation demonstration is the application. This should be the spot in the rule requiring the demonstration itself. Then the second sentence describes what it is to submit an adequate application. An adequate application still leaves the commissioner discretion and authority to deny the demonstration.*

  Changing the existing regulatory language to key off of a "demonstration application" in this way instead of a "demonstration" requires IDEM to modify the existing public notification regulation for antidegradation demonstrations (327 IAC 5-2-11.2(a)(2)). In this rulemaking IDEM is proposing change that to demonstration "application" which in turns creates the nonsense sentence "This section is applicable to an application for...an...application...."

327 IAC 2-1.3-6 (b) 15 requirements of information for antidegradation demonstration application

Since the commissioner "may" consider or not consider this information in the determination of the demonstration, it is important to be clear about the usefulness of the information of the decision and the depth of the information required to be provided. Otherwise this could be inconsistently applied to be superficial in one instance. In another instance repeated IDEM request for more information could be used as a pocket veto. Clarity is necessary in regulation or an accompanying nonrule policy document.

1 – pollutants of concern

Should be for which "demonstration" is required, not "application" is required

2 – estimated mass and conc of all pollutants of concern proposed to be discharged

This should be restricted to pollutants of concern with permit limits or other defined set of substances; the number of discernable pollutants of concern without limits could be in the thousands

3 – receiving water affected

Is this "information" just the name or is it the location or is this map of 10-digit watershed or such as flow or downstream fifteen miles?

4 – physical, biological and chemical conditions of receiving water

How far upstream and downstream?

5 – magnitude of the proposed lowering of water quality

6 – anticipated impact on aquatic life and wildlife

How is this intended to differ from analysis for water quality standard and for permit conditions?

Is the anticipated simultaneous inherent improvement in water quality for most pollutants of concern whose concentration is decreasing due to adding effluent flow explicitly to be considered in impact on aquatic like?

7 – anticipated impact on human health and on "overall quality and value of the water resource"

Is the anticipated simultaneous inherent improvement in water quality for most pollutants of concern whose concentration is decreasing due to adding effluent flow explicitly to be considered in impact on human health and on "value of the water resource"?

8 – degree to which water quality may be lowered in
National, state or local parks
Preserves or wildlife areas
OSRWs and ONRWs

9 – effects of lower water quality on social and economic value of receiving waters
Re: recreation, aesthetics, other enjoyment by humans

Is the anticipated simultaneous inherent improvement in water quality for most pollutants of concern whose concentration is decreasing due to adding effluent flow explicitly to be considered in impact on social and economic value of receiving waters?

Is this intended to capture economic uses such as for drinking water, process water, cooling water and irrigation or is that the "value of the water resource"?

Practically speaking, how does analysis of impact on "other human enjoyment" differ from analysis in number 7 of "value of the water resource"?

10 – extent to which resources or characteristics adversely impacted by lower water quality are unique or rare within locality or the state

11 – cost of water pollution controls associated with proposed activity

12 – availability, reliability, cost-effectiveness and technical feasibility
Nondegradation
Minimal degradation
Degradation mitigation techniques or alternatives

- *What is the relation between the information required under 2-1.3-6(b)(12) and the "alternative treatment analysis" of 2-1.3-6(d)(2)? If an applicant chooses BADCT, is the applicant relieved of obligation to perform 2-1.3-6(b)(12)?*

13 – analysis of effluent reduction benefits and water quality benefits
associated with "degradation mitigation techniques or alternatives"
including P2 alternatives cba
feasibility to connect to existing wastewater
treatment facility

(if is feasible, does antidegradation demonstration process start again; exemption for expansion of POTW is only for human health reasons)

For POTWs – if increase is due to indirect dischargers, identify CSO and SSO points between indirect discharge point and treatment plant

- *This point 13 seems to be about the benefits part of the equation compared to the costs and feasibility in point 12. However, there are no suggestions about what is meant by "effluent reduction benefit" or "water quality benefit" and how IDEM expects it to be quantitated and in which units to be presented. Instead the only significant suggested requiremenst for this analysis are entirely for the cost of reduction. These points are actually more appropriate details for the cost and feasibility analysis of point 12. Finally, even if these five specific requests are an elaboration of what is expected reduction at what costs, why is the universe of "degradation mitigation techniques or alternatives" restricted solely to P2 techniques and alternatives. There will also be feasible reductions not using Pollution Prevention techniques as P2 is defined in State law (i.e. shift to different, "greener, "less toxic chemical). That fact seems to be anticipated in point 12 by saying "minimal degradation."*

  I would suggest that point 12 be the requirement to study the feasibility of alternative techniques to reduce the discharge with costs compared to discharge reduction achieved. If you want to be sure a P2 analysis is done, add that explicitly.

  Then a point 13 would be some sort of analysts with IDEM guidance of estimating the benefit of each level of reduction. What is the "significance" in reducing the amount of lowering of water quality in the stream compared to impact of the effluent quality in proposed permit limit based on WQBEL and BAT?

  Note whatever is done, the six requirements of 6(d) must be made consistent with the five requirements here in 6(b)(13) since it appears to be discussing the similar path.

- *Typo – in C (ii) "POTW" should be "wastewater treatment plant" or "sewage treatment plant"; although it is commonly misused informally, "POTW" means the entire collection and treatment works, not just the treatment facility.*

14 – availability, cost-effectiveness and technical feasibility of central or regional sewage collection and treatment facilities

- *This is to be done by every applicant? Can't IDEM keep this inventory as a matter of its regular business?*

15 – evaluation of the anticipated impact of the proposed lowering of water quality on **economic and social factors**

Eighteen factors plus whatever extra the commissioner "finds relevant" or is required under Clean Water Act

- *Re: 15-S is ungrammatical because "factors" should be singular and the break of (i) should be after "that" – The second part would say any factor "required to consider under the Clean Water Act" I understand that this is a federal permit and this language is simple way for USEPA to accept incompletely defined authorities but in a state regulation to be fair to the applicant, IDEM and the citizens overseeing the process, we must list what the State considers required by the Clean Water Act. Otherwise we are providing no guidance applicant other than to say the applicant is in violation if fails to do something in a to-be-determined manner.*

- *It certainly is reasonable for the commissioner to have authority to request information not otherwise listed but I would not include that authorization by the Board in this list of what must be on the application. I would include that after the list as a separate item and I would have a guidance document simultaneous with the regulation explaining the procedure for knowing whether the extra request is in effect (e.g. this will likely be justification for a parallel staff wish-list of other factors IDEM staff want to know about; there must be a procedure to write those down, vet by Water Board and for applicant to have in advance; otherwise the process will be unnecessarily delayed. Remember, even with this list, IAC 2-1.3-6(c) says that the commissioner need not consider any of it in his decision.) 327 IAC 2-1.3-7(b) implies that the Commissioner request for information happens after the application is received, not at time of initial application.*

  The critical missing antidegradation policy in Indiana is clarity about exactly how much information is adequate for a demonstration for each test and what are decision criteria will IDEM use to judge that reduction of the proposed loading should be ordered. That is the core of the long-standing dispute and that is not addressed in this draft regulation.

- *Comment on application 6(b) as a whole:*
  I would suggest the list of required information be pared back to just those items we know now would be of substance as a decision factor. Then for all there must be a guidance non-rule policy document explicitly stating how much information and what type is adequate 1) to answer the question so the application is complete and 2) to be compelling justification for a demonstration of each of the two "necessary to accommodate" tests.

327 IAC 2-1.3-6 (c) Commissioner determination that proposed discharge is necessary to accommodate:

Must give "substantial weight" to governmental entities
May consider any of the 15 factors on the application

- *This subsection should be in Section 7 about Commissioner determination, not in Section 6 about application contents. It is the only part of Section 6 about determination but it is not specifying the determination itself but is just a must and may statement about general appropriate consideration of factors.*

- *The statement itself is the antidegradation standard verbatim so this is simply repeating that the standard must be followed.*

327 IAC 2-1.3-6 (d) Discharger may accept BADCT OR Include alternative treatment technique analysis

- *Make alternative treatment analysis language consistent in form with 6(b)(12 and 13); the relation of BADCT to* 327 IAC 2-1.3-6(b)(12 and 13) is not clear

327 IAC 2-1.3-6 (e) If discharger submits alternative treatment analysis, applicant must accept the commissioner choice of effluent limits based on that

- *I would be cautious about this sentence. First, note that there are two steps. 1) "approval of the alternative treatment analysis" and 2) establish permit conditions based on judgment about the information in the analysis. It is possible to have an approved analysis (i.e. analysis itself is done completely and to good quality; cost and benefits of all reasonable alternatives are clear) which clearly to IDEM shows that none of the alternatives mentioned would result in a discharge necessary to accommodate the development. The analysis is approved as a solid analysis but the demonstration that any of the alternatives can serve as acceptable permit conditions is disapproved. This sentence could later be interpreted by a Court to mean that once an applicant*

submitted an analysis that itself was approved, the agency must choose a permit condition from among the alternatives. In theory, that is unworkable because USEPA would then presumably deny the permit when IDEM issued permit conditions for which it could not demonstrate that the discharge was necessary to accommodate development.

- *Second, if this sentence is not here, it seems that IDEM already has under state law has authority to incorporate permit conditions that based on its judgment can meet the antidegradation demonstration. No matter what decision the commissioner makes with respect to the applicant's information including that the discharge should be moved to another location or that it needs more social/economic advantage in order to justify the significant lowering is implicitly a decision that "the dischargers shall accept." IDEM is issuing permit conditions that meet a demonstration that that particular amount of lowering is justified (and a larger amount would not be) on behalf of a federal antidegradation component of a federal NPDES permit. The option to the applicant is to appeal IDEM's decision or not to implement the proposed increase. If this sentence is not here, does that mean IDEM's decision on what will be its final draft permit is simply a suggestion to the applicant for the applicant to choose to accept? What if EPA approves a pre-draft permit condition? Is the applicant still free to reject the conditions if this "shall accept" provision is not here in the rule? If the sentence is here, does that mean that any other IDEM decision on the permit conditions are those that are subject to discretion of applicant to incorporate?*

- *The larger point that is missing here is mention of decision-making criteria the commissioner will use among the range of alternatives to determine which (if any) result in a significant lowering that is justified and which do not.*

- *Among those alternatives (i.e. those alternative lower loadings that are feasible) that IDEM considers necessary to accommodate important economic or social development in the area, how does IDEM select permit conditions? Among those that IDEM considers acceptable, is IDEM to choose one for the permit conditions that is the least costly (incremental capital and annual operation) or least impactful by some other factor? If cost is prime consideration for IDEM decision, is IDEM to consider co-benefits to applicant for a particular strategy (such as including costs of upgrade to process necessary for an alternative but with long term financial benefits for the process or waste disposal) or strictly the absolute amount of retrofit costs. Or is applicant free to select among any of the "acceptable" alternatives?*

- *Remember, for IDEM to stay with original draft permit conditions is an option provided the demonstration justifies that.*

- *For transparency of decision-making and predictability of decision-making and for consistency, this is the major crucial unresolved policy of IDEM antidegradation policy.*

7.Commissioner's Determination on Antidegradation Demonstration Application (327 IAC 2-1.3-7)

327 IAC 2-1.3-7(a) on receipt of antidegradation application, IDEM provide public notice for comments and initiate public meeting process if requested by 25 in watershed or if discharge to OSRW – IDEM holds public meeting

327 IAC 2-1.3-7(b) Later, IDEM determines the application to be "**administratively complete**"
Including – the answers to the demonstration application questions
- any other information commissioner requests
- evidence that applicant held a public meeting

- *This implies there could be two public meetings, one by IDEM (if in OSRW or requested by 25) and one by the applicant if not requested by anyone. Both public meetings seem to be for the identical purpose. A voluntary public meeting by an applicant if situation warrants is a good idea; an mandatory public meeting by an applicant is a bad and dangerous idea. It is impossible even to know what compliance with this would be much less to assure it was accomplished satisfactorily (there is no procedure or protocol listed). Applicants for small organizations may not know how to anticipate or run hostile public meetings where the only two parties present are the applicant and remonstrators. State regulation must not create such potentially dangerous situations.*

- *There needs to be a better description of step to decide when the application is complete; Start of notification process should be when completed antideg application is received, not when the initial application is received; it is not in any stakeholder interest to have multiple versions of application posted and in circulation. Once IDEM determines it is complete for public notice and comments requested, then it is circulated and later IDEM should be able to ask for more information. Another step is when application is complete for a determination.*

327 IAC 2-1.3-7(c) Commissioner shall deny "some or all of request" to significantly lower water quality if one or more occur:
cost-effective measures to reduce the lowering of water quality
action not necessary to accommodate important economic or social development in the area
action would jeopardize state listed endangered or federally listed threatened and endangered species

- *Note that timing deadlines have been eliminated from this version; the only timing is original regulation for permit process. This adds 30 days to include the antidegradation public meeting. (327 IAC 5-2-11.2 already allows an extra 30 days for notification step and 30 days if there is public meeting.) HEA 1162 adds 90 days "for cause."*

Comments suggesting a completely different approach to section

It seems that the agency is proposing to have a determination for the antidegradation demonstration independent of the determination to issue a new permit or a permit modification. This allows the applicant or an external party the opportunity to appeal that determination independent of an appeal of the final permit.

Another approach that is more efficient in terms of IDEM resources is not to have this step. Instead we say that the permit application itself for the increased discharge is denied because of 1) a proposed significant

lowering of water quality and 2) that lowering is not necessary to accommodate important economic or social development in the area. If the permit with an increased discharge is issued, the statement is made that either there is what this regulation calls an exemption from antidegradation demonstration or the demonstration of necessary to accommodate was made as documented by the accompanying materials.

If this other approach is taken, then this antidegradation part of the regulation need only concern itself with the decision factors for a demonstration to show that a proposed permit condition indeed is necessary to accommodate important economic or social developments in the area.

The appeal by the applicant or external party of what either believes improper about the antidegradation demonstration would then be a basis of the appeal of the permit.

This approach would not have commissioner denial in the antidegradation portion of administrative code but just the factors required for a successful antideg demonstration.

e.g.

administratively complete application
technically substantive and adequately comprehensive analysis
no superior controls are reasonably available to attain a further reduction in loading that would provide a significant water quality benefit relative to the cost
the activity requiring the discharge accommodates important economic or social development in the area
adequate public participation process

(obviously, more detail could be provided in the rule about the nature of IDEM's decision-making of an adequate demonstration were that understood - see Missing Parts section at end of this document)

BB comments given the approach in the proposed rule of having an antidegradation application determination separate from the determination to issue a permit:

These three denial criteria are an awkward mix of three factors. The first two are overlapping and the third about endangered species habitat is not an antidegradation factor but is rather is best addressed as a fundamental factor in issuing the basic NPDES permit.

- *I did not understand what was meant by denying "some but not all of a request" to discharge in an manner to significantly lower water quality that does not meet the necessary to accommodate antideg standard of this rule; I think that the "shall deny" should apply to "all" of a request for actions that would "cause the lowering of water quality is not necessary to accommodate important economic or social development in the area." That provision is the <u>only</u> matter the <u>entire</u> regulation is addressing (See Section 3 – Antidegradation Standards).*

  What truly is being attempted in this language is to approve that there was a demonstration that whatever permit conditions IDEM now proposes (that of draft permit or that adjusted according to information learned in the antidegradation process) meets the two tests of being as low a discharge as reasonable for the situation and for an activity that helps important economic or social development in the area.

- *First criteria – As written the phrase "has chosen not to implement" is not the correct verb form for this concept because proposed permit conditions are all implemented after the permit is issued, not before. I think what is meant is that IDEM believes a different permit condition meets the technology test of the antideg standard and is reasonable and "cost-effective" for the applicant to achieve but that the permit condition preferred by the applicant does not.*

The "cost-effectiveness" factor is a subset of the cost-benefit factor the IDEM is asking applicants about in Section 6(b); it is a component of the "necessary to accommodate..."criterion not additional to it. It certainly is counter-intuitive to good policy if the "necessary to accommodate" factor (second criterion here) was met and the facilities chose to ignore IDEM's suggestion for a "cost-effective" measure and instead chose a measure much less cost-effective than IDEM's (i.e. more expensive than what IDEM wished) for internal corporate reasons. On the other hand if the applicant chooses to use a technology that does not provide an impact reduction such that the impact is justified by the necessary-to-accommodate standard, then such a discharge is denied. Note that while cost-effectiveness is an important factor to consider, cost itself is equally important. One technology to reduce a chemical may be the more cost-effective than another but still be more costly to install and operate. The provisions in Section 6(d) for discharger to submit this information asks for costs and asks for effluent concentrations but it never directly requests table of cost-effectiveness nor does it explain the assumptions the IDEM will use to calculate cost-effectiveness from that information.

- *If it is desired to break out the "necessary to accommodate" decisions into two (and if you wish to have a separate IDEM approval in middle of the permit evaluation process), I would say "Commissioner may deny if determines activity with discharge is not nec to accom .... A permit condition for discharge is denied according to this standard if at least one of the following two conditions is met*

- the proposed permit condition would result in a greater load or concentration than would be achieved by using reasonably-available cost-effective affordable measures that would prevent or minimize the lowering of water quality

-the activity associated with the proposed new or increased discharge does not accommodate important economic or social development in the area.

- *Second criteria – this is the fundamental federal antidegradation language of Section 3; this says it all; however correct it is, it is just as unhelpful to describing how the Commissioner decides as IAC 2-1.3-7(d(5) and IAC 2-1.3-7(e). The challenge for this regulation is describing in practical terms how to fulfill that statement, not to repeat the statement.*

- *I would suggest that another reason to deny request to lower water quality significantly should be that antideg application is administratively incomplete or technically inadequate*

- *Third criteria - Protection of the endangered species and federally listed threatened and endangered species does not belong in antidegradation regulation. This must be present in the NPDES permit conditions. The draft NPDES permit conditions that are submitted for antidegradation review must never jeopardize such species or sensitive habitat. It is just as unnecessary to list this condition as to list any other condition just as does not meet BAT, does not meet WQBEL or does not meet a narrative standard*

(When this is moved to an appropriate place in the NPDES regulation, I would say "listed threatened <u>or</u> endangered species" since no species is simultaneously listed as both "threatened <u>and</u> endangered.")

327 IAC 2-1.3-7(d) commissioner may approve some or all of request to significantly lower water quality **only if** following occur:

- "an examination of nondegradation, minimal degradation, and degradation mitigation techniques or alternatives"
- review of social and economic issues
- public participation
- appropriate intergovernmental coordination
- determination that "lower water quality" is necessary.....

- *The first factor **327 IAC 2-1.3-7(d)(1)** "examination of nondegradation, minimal degradation, and degradation mitigation techniques or alternatives" must be rewritten to match exactly the*

"availability, reliability, cost-effectiveness, and technical feasibility" of 327 IAC 2-1.3-6(b)(12) if that is what is intended here by "examination." Issues related to consistency with 327 IAC 2-1.3-6(b)(13) and 327 IAC 2-1.3-6(d)(1) and (2)discussed earlier in this paper must be resolved if this factor is to be a condition necessary for a Commissioner determination. Note well that this factor is not the technology test of 327 IAC 2-1.3-6(d)(1) and (2) as it is implied in this particular summary of the sum of factors for the Commissioner decision.

- *The first four of these factors are stated here in a simple and elegant manner. It would be better were the rest of the regulation were organized in this way.*

- *The fifth factor is a completely different type of factor than the other four, analogous to the second factor for denial. With the adverb "significantly" from the initial phrase introducing the factors, the fifth factor simply says commissioner determines antidegradation standard is met. But the first three of the factors listed in fact are a part of that determination. I am struggling with what is being envisaged as the action being taken by the Commissioner here. The basic logic of d) is that the Commissioner "may" approve the request to significantly lower water quality if, among other things, the Commissioner "determines" the antidegradation standard has been met. That is circular. What is needed to lock in regulatory language is how the Commissioner makes the determination the standard is met.*

- *I prefer my suggestion at the beginning of this section that this section simply be about the conditions necessary for a successful demonstration that the antideg standard is met and then later when permit is issued comes the formal Commissioner determination that all ducks are aligned, including the antideg "determination."*

  But if an independent determination is desired, I would change d) to read something like "commissioner may determine that allowing lower water quality due to the new or increased discharge is necessary to accommodate important economic or social development in the area in which the waters are located only if the following have occurred....:"

  - an examination of nondegradation, minimal degradation, and degradation mitigation techniques or alternatives
  - *review of social and economic issues*
  - *public participation*
  - *appropriate intergovernmental coordination*

8. Water Quality Improvement Project Application (327 IAC 2-1.3-8)

The title should have word "overall" after "quality" to be consistent with the subsequent text and to reduce confusion of the nature of this project later.

Pay into fund or pledge to perform a water quality improvement project

Project application:
"Sufficient information to clearly demonstrate that a project will result in an overall improvement in water quality to the OSRW"

This is essentially a repeat of the enabling statute. It does not set implementation procedures for a predictable, transparent and consistent manner toimplement the statutory requirements.

It does not flesh out the nature and degree of detail expected in a document proposing a project. What is adequate assessment of existing water quality for this purpose? What trade-offs among water quality indicators are acceptable? What is a complete proposal? Is the loading to be assessed per pollutant or in aggregate?

It does not specify how IDEM will evaluate the proposal to determine whether overall improvement in water quality will occur. It does not indicate the probability of success that is acceptable. It does not give reporting and accountability for implementation of a project.

What is the timing of a commissioner decision?

Similarly there is no guidance about how IDEM could select an alternative fee to the maximum.

Absent this detail at least in a nonrule policy document at the time of a board decision on the proposed rule, this regulation does not give much direction to implementing the statute beyond the existing statute. Without such guidance, a dispute about a project will be so complex without common understanding of expectations that the process will die in the Courts.

(PS When it is agreed what is involved in this evaluation by IDEM, it would be good for the Board to add an adequate fee structure to this policy(or receive permission to assess an amount from the fund) to off-set partially the extra costs to the agency for the project evaluation and oversight.)

General Comment on IDEM Proposal for Draft Antidegradation Rule 1.3 as Form of Determination:

This draft makes profligate use of the phrase "commissioner determines" or "commissioner determination" in ways earlier regulations do not. I understand that a rose by any other name is a rose but since every commissioner "determination" can be appealed, I would suggest that the number of steps called "determinations" be modified in a manner to bunch them to a single Determination for purposes of appeal. Otherwise a party could appeal multiple places in order to delay a decision. Citizens right to appeal is essential to proper oversight of government but those opportunities should be wisely chosen for critical steps in the process.

Revision to 327 IAC 5-2-11.2

This section of proposed modification to existing State regulation specifies precise procedures for public notice and public meeting for request for special determinations such as the site-specific water quality criteria, a variance from effluent limitations alternate mixing zones and antidegradation.

- *Note that the changes IDEM is proposing here apply to other situations not related to antidegradation. The changes must be evaluated for positive or negative impact on those other situations as well.*

  Applies to - Site-specific modification of water quality criterion
  Antidegradation demonstration
  Antidegradation exemption demonstration
  Alternate mixing zone
  Variance from water quality standard

- *Note public meeting is not a public hearing. Although a public meeting must be recorded, the purpose is for IDEM and the applicant to explain the situation. That allows formal written public comments submitted in response to the request for comments to be more informed. After a commissioner determination is made and a public hearing is held, those public comments are for the record agreeing with the determination or disagreeing in whole or in part with the determination.*

This draft rule revises

327 IAC 5-2-11.2(a) applicability of the public notice section

11.2(a)(2) Current regulation has category "antidegradation demonstration"
Proposed change is for this to be "antidegradation demonstration <u>application</u>"

- *The entire rule keys incorrectly off of the "demonstration application" instead of the "demonstration" itself to be approved or denied. That creates the nonsense sentence in 11.2(a)as includes 11.2(a)(2):*
  "This section is applicable to an application for...an...application...."

  This draft revision gets this nuance correct when a) assigning a title to section, b) listing examples of the type of application in 11.2(b)(2) in the form. Here it says "antidegradation demonstration" instead of "antidegradation demonstration application" and b) when not changing (b)(1)(A) to add "demonstration application."

  Changes the current Indiana Great Lakes Basin language of "antidegradation exception" to "antidegradation exemption justification" add deletes restriction to Great Lakes Basin.

- *This exemption justification is restricted to exemptions under 327 IAC 2-1.3-5 (which really means the exemptions of 327 IAC 2-1.3-4(b)(4); section 5 is just application form for the 4(b)(4) exemption); but the regulation here and in 327 IAC 2-1.3 is silent on procedure for public engagement in the consideration of the justification for exemptions of 327 IAC 2-1.3-4(b)(3).*

327 IAC 5-2-11.2(b)(1)(B) receipt from IDEM electronically

Requires IDEM to notify of the receipt of all of these applications for special decision by "electronic media wherever possible" for people on draft permit mailing list. That includes EPA Region 5, district engineer of Corps, regional director of US Fish and Wildlife, other interested

state and federal agencies, other persons on request and people on the IDEM OWQ list to receive all public notices.

- *Demanding by regulation that the commissioner sends this information electronically "whenever possible" needs to be explored. The draft permit fact sheet needs to be "sent" to these people and the draft permit itself needs to be mailed by certified mail return receipt requested to all of these people.*

- *The criteria should be that the material is received by the parties and thus the "wherever possible" should be the preference of the recipient. It is "possible" for IDEM to sent material electronically that is impossible for people with older versions of software to access easily or completely due to size of file, age of software or simply telephone line restrictions. It is "possible" for IDEM to make material virtually inaccessible to common citizen by sending electronically a reference to a website. Practice over the past year is that the Virtual File Cabinet will take many years to get to a mode of ready and dependable and easy access.*

- *I would suggest that the regulation allows electronic notification when proven to be reliable and accessible to the parties receiving it. It should not demand it whenever IDEM considers it possible for IDEM.*

327 IAC 5-2-11.2(b)(3) who can request public meeting

The proposed draft rule greatly restricts the types of parties allowed to request a public meeting and expands the minimum of different requesters needed for a valid request. Current rule simply says "if requested, the commissioner shall hold a public meeting." Proposed draft says at least 25 "persons" living or working within the same 10 digit watershed or within 15 miles of the discharge is what is necessary to require a public meeting.

- *This new protocol requires parties to identify their working or living relationship in context of a 10 digit water shed or within a 15 mile radius of the discharge point. That in turn would require IDEM to post the radius and the watershed boundaries on a map with enough detail to distinguish that.*

  While this restriction is arguably appropriate for antidegradation, it could be that a wider group may have legitimate interest for a decision precedence for a matter such as a site-specific modification to a water-quality criterion.

FOUR CRITICAL ITEMS ARE MISSING FROM THIS DRAFT RULE FOR CONSISTENT IMPLEMENTATION OF THE FEDERAL ANTIDEGRADATION RREGULATION

The draft rule fails to address four out of the five main issues of controversy in State implementation of federal antidegradation policy. The single key policy issue it does address (what is a "significant lowering" that would require an antidegradation demonstration) is simply a revision of the existing Indiana antidegradation trigger set in Indiana regulation for the Great Lakes Basin.

These four items unaddressed items were those that the Barnes Report specifically requested. Dr. Barnes gave this advice at the request of Governor Daniels following the controversy around the manner of IDEM's implementation of current antidegradation regulation regarding the BP NPDES permit modification.

These four issues are:

1. **What is an adequate depth of information and analysis required for a complete socio-economic review?** How extensive a report is an applicant to supply to IDEM to answer IDEM's questions about socio-economic importance to area? What is an adequate answer to each question? Which questions will IDEM rely on for its decision and how accurate and in what depth are the answers expected to be? What is the "area?"

2. **What criteria will IDEM use to judge the activity related to the discharge accommodates important economic or social development in the area?** Given an IDEM-approved set of answers to IDEM's questions, what decision-making basis will IDEM use to make transparent, predictable and consistent decisions about whether the activity related to the proposed increased discharge is worth enough socially and economically to the area to justify the lowering of water quality?

3. **What is a an adequate depth of information and analysis required for a substantive technical analysis of alternatives to the loading?** How extensive a report is an applicant to supply to IDEM to answer IDEM's questions about alternative or enhanced treatment techniques? How extensive a report is an applicant to supply to IDEM to answer IDEM's questions about feasibility of pollution prevention possibilities? Does it depend on capabilities of the discharger? Does it depend on the size or impact of the proposed increase? Does it depend on the receiving water/ Does it depend on public opinion in the area? What is an adequate answer to each question? How accurate and in what depth are the answers expected to be? What financial analytical techniques will IDEM allow or demand? What techniques for estimating benefit to receiving water quality will IDEM allow or demand when determining relative effectiveness of different control strategies?

4. **What specific criteria will IDEM use to decide that one permit condition meets the antidegradation standard and a second does not?** Given an IDEM-approved quality of analysis of alternative or enhanced treatment techniques and pollution prevention, what decision-making basis will IDEM use to make transparent, predictable and consistent decisions about whether the activity related to the proposed increased discharge is worth enough socially and economically to the area to justify the lowering of water quality? Is there are decision-making matrix analogous to knee-of-the-curve for CSO or to CERCLA alternative treatment decision-making or to resolving air permit-specific BACT disputes. Who and how will choose what the permit conditions to be that meet the antidegradation demonstration?

The entire antidegradation process must be established carefully in advance to meet to competing objectives: expeditious permit application evaluation and appropriate and timely engagement of the public. The clearer are the answers to the four questions, the easier it is to meet both objectives.

This is best accomplished in a non-rule policy document that should be prepared simultaneous to te proposed rule so the Board can understand the significance of what it is approving as a new antidegradation regulation.

ALSO MISSING FROM DRAFT RULE IS AN IMPLEMENTATION REGULATION OF THE STATE-MANDATED OSRW OVERALL IMPROIVEMENT OBLIGATION

In addition to the State rule implementing the federal antidegradation regulation, the Water Pollution Control Board must adopt a regulation to implement the State's additional policy for antidegradation in the State-designated Outstanding State Resource Waters. The draft rule simply repeats the State statute that an overall improvement project must be done but the regulation provides no help to the agency, the applicant or the citizens as to what is expected in such a project or what about of information is adequate to justify it or how to assign a dollar figure to the donation to the fund in lieu of the applicant performing the project.

PRACTICALITY CHECK

When a legally and scientifically reasonable text is written to incorporate IDEM's suggested antideg implementation policy, it must be vetted for practicality of IDEM staff (with existing resources or with enhanced resources), of large and small dischargers (public and private) and of citizens (sophisticated public interest advocates and average citizen). The final implementation rule must accommodate all. And for all of those groups it must be designed for transparency, predictability and consistency.

Also wording should be carefully matched to USEPA language to assure no inadvertent inconsistency.

Consistent spelling Tier I criteria and Tier II values (IAC 2-1.5-16) and 327 IAC 2-1.5-2 definitions

OUTSTANDING POLICY ISSUES FROM THIS PARTICULAR APPROACH

1. How does this antideg implementation fit with the variance process in general and the streamline mercury process in particular?
2. Antidegradation policies given mercury as ubiquitous BCC needs to be addressed.
3. Adequate regulation or nonrule policy document for overall improvement project
4. Procedures and technical resources to IDEM to evaluate industry-specific and facility-specific control technologies and P2 technologies; is there are difference for new facility or retrofitting a facility? Does the nature of the substance influence the decision?
5. Nonrule policy documents
    a) nature and extent of exemption justification and criteria for IDEM decision
    b) nature and extent of adequate application for purpose of substantiating demonstration
    c) criteria for IDEM to decide about important social or economic factors
    d) criteria for IDEM to select alternative treatment technology or pollution prevention
6. Existing effluent quality measurement for lowering water quality decision
7. Non-permit limit related antidegradation implementation
8. Efficient and effective process for timely public engagement
9. Addressing substances for the effect not of water column toxicity but rather for enhanced (and excessive) fertility of aquatic community

Indiana Steel
Environmental
Group

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STATE OF INDIANA
FEB 2 2010
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Water Quality

9305 Calumet Avenue, Suite F-1
Munster, Indiana 46321
Tel: 219-836-1000
Fax: 219-836-4100

CERTIFIED MAIL – 7008 1300 0000 8348 1678

January 29, 2010

OFFICIAL COMMENT

Mary Ann Stevens
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Avenue
Mail Code 65-41
Indianapolis, Indiana 46204-2251

Subject: LSA Document #08-764 – 2nd Notice of Comment Period
Development of New Rules and Amendments to Rules Concerning Antidegradation Standards and Implementation Procedures

Dear Ms. Stevens:

I am writing this letter on behalf of the Indiana Steel Environmental Group (ISEG) to provide comments on LSA #08-764, Development of New Rules and Amendments to Rules Concerning Antidegradation Standards and Implementation Procedures.

The Indiana Steel Environmental Group is a coalition of Indiana steel companies established to focus on environmental matters of concern to its members. The Indiana Steel Environmental Group (ISEG) consists of membership from ArcelorMittal USA, Inc., ArcelorMittal Indiana Harbor, LLC, United States Steel Gary Works, United States Steel Midwest Plant, ArcelorMittal Burns Harbor LLC, and Nucor Steel Crawfordsville.

The Indiana Steel Environmental Group's primary concern regarding antidegradation relates to the practical impacts of implementation. If not properly implemented, the program could place severe limitations on important social equity/improvement issues and economic progress for the affected communities, without resulting in any significant benefit to water quality. This will seriously impair attempts to revitalize existing brownfield communities and will compromise the competitiveness of existing industries within those communities by limiting their ability to expand or change technologies.

The antidegradation standard and implementation procedures for waters of the State should be crafted in a way that will be protective of the receiving waters and support the economic viability of existing industries and the affected communities. The ISEG offers the following comments on this Second Notice of Rulemaking.

Antidegradation Trigger

The ISEG believes that the requirement to perform an antidegradation review should only be triggered when a permittee requests either a higher limit for a parameter currently regulated under its NPDES permit or a limit for a parameter that had previously not been regulated by that permit. This type of trigger will not impede the renewal of existing NPDES permits that have been previously evaluated. In addition, this type of trigger

provides certainty to the regulated community as to when a change in the operation might trigger a review and then allow for an evaluation by the permittee of the extent of the change in order to determine if it is either exempted, insignificant or causes a significant lowering of water quality. This type of pre-evaluation certainty is critical for industry personnel to evaluate the potential success of a capital investment project prior to any financial commitment.

327 IAC 2-1.3-4 - Exemptions

Wastewater Treatment Chemicals - The ISEG supports the inclusion of appropriate exemptions for properly applied wastewater treatment chemicals that are used to achieve NPDES discharge compliance.

316(a) Variances

The ISEG believes that the procedures for obtaining a 316(a) variance for temperature should, in-and-of themselves, be sufficient in satisfying antidegradation demonstration requirements because the procedures are intended to demonstrate that there are no adverse effects to the indigenous aquatic community as a result of the issuance of the variance.

327 IAC 2-1.3-2(43)

Pollutant of Concern – The ISEG is supportive of the definition of "Pollutant of Concern" for pollutants that are reasonably expected to be present in a discharge based on the source and nature of the discharge. However, the ISEG believes it is inappropriate to expand the definition to include pollutants contained in receiving waters that are beyond the control of a regulated facility. Atmospheric deposition of pollutants in receiving waters is an example of pollutants beyond the control of a regulated facility.

327 IAC 2-1.3-3(c)

Tributaries to OSRW's – The ISEG objects to placement of language concerning treatment of tributaries in the antidegradation standard thereby inappropriately designating many additional waters as OSRW's.

327 IAC 2-1.3-4(b)(1)(B)

De minimis provisions for OSRW's - IDEM's decision to establish de minimis allowances for OSRW's that are 1% (Tier I criteria), 2% (Tier II values), and 2.5% (cumulative cap) are extraordinarily stringent and are not based on applicable science relating to maintaining existing water quality. This is particularly true for Lake Michigan when EPA has supported a 10% de minimis under the Great Lakes Water Quality Guidance and neighboring states are allowing for a de minimis level in their antidegradation programs that is equivalent or even higher.

The ISEG does not believe that the de minimis/cumulative cap provisions for OSRW's should be more stringent than the corresponding provisions for high quality waters that are being used by neighboring states. In addition, it is the ISEG's contention that the more stringent provisions proposed for OSRW's do not comply with the requirements of SEA 431.

327 IAC 2-1.3-7(b)(3)

Requirement to hold a public meeting – The ISEG believes that IDEM should not make a determination on an antidegradation demonstration based on the requirement for the regulated entity to hold a public meeting. Holding a public meeting should be the responsibility of IDEM.

327 IAC 2-1.3-8

Water Quality Improvement Project – The ISEG believes that language should be inserted that reflects that the fee determination amount should be based on the percentage of the unused loading capacity that the proposed project consumes.

Variances

Discharges that have been granted variances should not also be required to submit an antidegradation demonstration because the application and review process for obtaining a variance is substantially the same as the antidegradation demonstration and review process. We believe that IDEM meant to include such a provision because 327 IAC 2-1.3-2(67) (66) contains a definition of variance, a term that is not otherwise used in this proposed new rule.

The ISEG agrees with IDEMs proposal to expand the social or economic justification to include the positive benefits to the area of the discharges. For discharges that trigger an antidegradation review, we are supportive of the use of innovative projects that will result in an overall improvement of water quality in the watershed of the discharge.

In closing, the ISEG believes that a constructive antidegradation rule will contain reasonable triggers for review, appropriate exclusions from full review, and a sensible process for obtaining approvals.

Thank you for your consideration of these comments. If you have any questions please feel free to contact me at patrick.gorman@eptconsultants.com or phone at 219-836-1000.

Sincerely,

Patrick M. Gorman

Patrick M. Gorman, P.E.
Facilitator, Indiana Steel Environmental Group

ArcelorMittal NUCOR SHEET MILL-CRAWFORDSVILLE USS

OFFICIAL COMMENT

Taft/

Taft Stettinius & Hollister LLP
Indiana Square, Suite 3500 / Indianapolis, Indiana 46204 / Tel: 317.713.3500 / Fax: 317.713.3699 / www.taftlaw.com
Cincinnati / Columbus / Cleveland / Dayton / Covington / Indianapolis

Fax

To:	*MaryAnn Stevens*	**From:**	*Bill Wagner*
Company:	*IDEM Rules Development Branch,*	**Company:**	*Taft Stettinius & Hollister LLP*
Fax Number:	*1 (317) 233-5517*	**Fax Number:**	*317-713-3614*
Phone Number:	*(317) 233-8903*	**Phone Number:**	*317-713-3614*

Date/Time: *1/30/2010 12:29:50* **Total pages sent (including this one):** *31*

Comments:

Comments on LSA Document #08-764, Second Notice of Comment Period from the Indiana Water Quality Coalition and Indiana Manufacturers Association

OFFICIAL COMMENT

STEVENS, MARY ANN

From: Wagner, William [WWagner@taftlaw.com]
Sent: Monday, February 01, 2010 10:52 AM
To: STEVENS, MARY ANN
Subject: IWQC and IMA Comments to LSA Document #08-764 Antidegradation Rules - Typo
Attachments: 2009-02-01 IWQC and IMA Comments to Antidegradation Rules.DOC

Dear Ms. Stevens:

On Saturday, January 30, 2010, I faxed to IDEM comments to LSA Document #08-764 concerning IDEM's proposed antidegradation rules on behalf of the Indiana Water Quality Coalition and Indiana Manufacturers Association. My January 30 letter contained a typographical error in which I transposed a number; i.e., "$53 million" should have been "$35 million". That sentence has been corrected on the attached letter, dated February 1, 2010. The new sentence now reads: "The cost of conversion was estimated to be $35 million (converting to dry fly ash handling and building Phase I of a landfill)."

I apologize for the error and would like to substitute my February 1, 2010 letter for my January 30, 2010 letter.

Sincerely,
Bill Wagner

Taft /

William C. Wagner / Attorney
Taft Stettinius & Hollister LLP
One Indiana Square, Suite 3500
Indianapolis, Indiana 46204-2023
Tel: 317.713.3500 • Fax: 317.713.3699
Direct: 317.713.3614 • Cell: 317.431.5979
www.taftlaw.com / WWagner@taftlaw.com

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OFFICIAL COMMENT

Taft/

Taft Stettinius & Hollister LLP
One Indiana Square, Suite 3500 / Indianapolis, IN 46204-2023 / Tel. 317.713.3500 / Fax: 317.713.3699 / www.taftlaw.com
Cincinnati / Cleveland / Columbus / Dayton / Indianapolis / Northern Kentucky / Phoenix / Beijing

William C. Wagner
Direct: 317.713.3614
Email: wwagner@taftlaw.com

January 30, 2010

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave.
MC 65-41
Indianapolis, Indiana 46204-2251

Subject: Comments on LSA Document #08-764, Second Notice of Comment Period

Dear Ms. Stevens:

The Indiana Water Quality Coalition and the Indiana Manufacturers Association submit the following comments and suggestions to the "Development of New Rules and Amendments to Rules Concerning Antidegradation Standards and Implementation Procedures," LSA Document #08-764, 20091216-IR-32708764SNA (hereinafter, the "Antidegradation Rules"). The Indiana Water Quality Coalition ("IWQC") is a group of businesses with shared interests in Indiana regulations, policies, and operating procedures concerning water quality. The Indiana Manufacturing Association ("IMA") is a voluntary, non-profit trade association representing nearly 2,000 companies and 600,000 manufacturing jobs. Each of these entities (collectively, the "IWQC and IMA") has members or facilities in Indiana that will be considerably impacted by the adoption of rules concerning antidegradation standards and implementation procedures.

The Antidegradation Rules contain a number of revisions to the current Indiana water quality standards rules. Some of these revisions will result in significant changes in facility operations, and cause severe restrictions to or even prohibit new and increased discharges that will have minimal impact on water quality. These changes will impose additional compliance costs, and could adversely impact economic growth and employment in the State. Despite these significant impacts, we believe that there

will be little environmental benefit from some of the new requirements. Therefore, we urge IDEM and the Board to consider, for each proposed regulatory change, whether the change is truly necessary and whether its benefits justify the resulting social and economic impacts.

The comments and suggestions below highlight issues particularly important to the IWQC and IMA. If you have any questions or need additional information on any issue raised in the comment, please contact me by email (wwagner@taftlaw.com) or by phone (317) 713-3614.

I. INTRODUCTION

The IWQC and IMA have actively participated in IDEM's antidegradation rulemaking activities since they began in the late 1990s, following the adoption of the Great Lakes system rules. The IWQC and IMA submitted detailed comments on IDEM's March 2003 first notice of rulemaking, March 2005 second notice of rulemaking, and October 2008 first notice of rulemaking. These past submissions provide a complete description of our positions on each aspect of antidegradation review. New and detailed comments are set forth below based on the proposed rules published on December 16, 2009 in the *Indiana Register*.

II. COMMENTS CONCERNING IDEM'S ANTIDEGRADATION RULES

1. The Antidegradation Rules Should Be Simplified.

The Antidegradation Rules should be simplified in the ways, and for the reasons, set forth below. These rules must be re-drafted with the following goals in mind:

(1) Minimize the expenses to regulated entities required to comply with the rules;
(2) Achieve the regulatory goal in the least restrictive manner;
(3) Avoid duplicating standards found in state or federal laws;
(4) Improve ease of comprehension; and
(5) Have practical enforcement.

See I.C. § 13-18-3-2(a) (requiring compliance with I.C. § 4-22-2-19.5).[1/]

As demonstrated below, IDEM's Antidegradation Rules have become very complex and unwieldy. The rules appear to apply to anyone, when the rules were

1/ Even though there is a requirement to have antidegradation rules in place by federal law, the rules at I.C. § 4-22-2-19.5 apply to this rulemaking because the federal language to adopt an antidegradation policy is not prescriptive of the specific rule requirements that states must adopt to meet the federal requirements. *See* 40 CFR 131.12(a).

originally intended to apply to NPDES Permittees[2] and any state-regulated nonpoint source discharges. The rules also appear to apply to any discharge of anything, when the rules were originally intended to apply to a more limited subset of sufficient parameters that could impact designated uses. By incorporating broad terms (such as Indiana's definition of "pollutant") and requiring detailed calculations for substances that have no water quality standards, the rules have become a quagmire and require the expenditure of substantial time, money, and energy to achieve compliance. The agency and private parties have limited resources. Administrative necessity requires a more focused set of antidegradation rules, especially when the benefits of such detailed regulation become more and more marginalized.

2. The Antidegradation Rules Should Only Apply to NPDES Permittees.

The Antidegradation Rules should apply only to a person required to have a NPDES permit. As written, the Antidegradation Rules apply to anyone who would discharge anything to any surface water within or adjacent to Indiana's borders. The net cast by these rules could ensnare, for example, a person washing a car in their driveway who allows the runoff water to flow into any surface water falling within the broad definition.[3] This is well beyond the scope of the federal antidegradation rules and would lead to absurd results and be administratively unfeasible for IDEM to enforce.

Under the Clean Water Act, EPA may only require States to adopt and implement the federal antidegradation policy against point source discharges. *American Wildlands v. Browner*, 94 F.Supp.2d 1150, 1164-65 (D. Colo. 2002) ("Congress has left the regulation of nonpoint sources up to the states."), *aff'd* 260 F.3d 1192, 1198 (10th Cir. 2001) ("In the Act, Congress has chosen not to give the EPA the authority to regulate nonsource pollution."). These point source discharges are subject to NPDES permit requirements, represent a significant source of discharges into surface waters of the state, and are a finite source of persons to be regulated. Despite the broad language of 40 CFR § 131.12(a)(2), which states that States "shall assure that there shall be achieved . . . all cost-effective and reasonable best management practices for nonpoint source control," States are not required to regulate nonpoint source discharges. *American Wildlands*, 260 F.3d at 1198; EPA Water Quality Handbook, Ch. 4, Section 4.5 ("Section 40 CFR 131.12(a)(2) does not require that States adopt or implement best management practices for nonpoint sources prior to allowing point source degradation of a high quality water. However, States that have adopted nonpoint source controls must assure that such controls are properly implemented before authorization is granted to allow point source degradation of water

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2/ "NPDES Permittees" refers to those persons required to apply for a National Pollutant Discharge Elimination System ("NPDES") permit under 327 IAC 5-2-2.

3/ "Surface water" is defined at 327 IAC 5-1.5-72, which incorporates the very broad definition set forth in IC § 13-11-2-265.

quality.").[4] Rather than trying to regulate any discharge, IDEM should focus its antidegradation efforts and limited resources on dischargers who are already subject to NDPES permit regulations.

In addition to the fact that EPA cannot enforce the federal antidegradation policy against nonpoint sources or require IDEM to enforce the policy against non-regulated nonpoint sources, the Antidegradation Rules may also be subject to an attack for failing to provide procedural due process as required by the 14th Amendment to the U.S. Constitution and Article 1, Section 12 of the Indiana Constitution. *Brown v. State*, 868 N.E.2d 464, 467 (Ind. 2007); *Healthscript, Inc. v. State*, 770 N.E.2d 810, 815-816 (Ind. 2002). Under these cases, a statute can be declared void for failing to provide adequate due process where the prohibited conduct is too vague, fails to provide "fair warning" of what exactly is prohibited, and may result in discretionary enforcement.

Further, IDEM may exclude nonpoint source discharges from the Antidegradation Rules under the doctrines of "absurd results" and "administrative necessity." Some have argued that the federal antidegradation regulations broadly prohibit any new or increased discharge of anything to surface waters of the state, including unregulated nutrients and sediments,[5] so that IDEM cannot limit its enforcement of antidegradation to certain pollutants. Such thinking is contrary to the federal antidegradation regulations, which allow States to prioritize the pollutants subject to antidegradation review. *See* 40 CFR § 131.11(a)(1), which provides that "States must adopt those water quality criteria that protect designated use. Such criteria must be based on sound scientific rationale and must contain *sufficient parameters or constituents* to protect the designated use." (Emphasis added.) Clearly, IDEM does not need to try to regulate every possible substance that could be introduced into a surface water, which appears to be what IDEM has tried to do by including calculations for pollutants without water quality standards and using the broadly-defined terms of "toxic substances"[6] and "pollutants."[7]

4/ *See also* EPA Water Quality Handbook, Ch. 4.6 ("There is a direct Federal implementation mechanism to regulate point sources of pollution but no parallel Federal regulatory process for nonpoint sources."); Water Quality Guidance for the Great Lakes System: Supplementary Information Document (SID) (hereinafter, "SID"), EPA 1995, p. 205, Ch. VII (A)(1) ("The applicability of antidegradation to nonpoint sources is also a source of confusion. ... Neither the antidegradation provisions contained in the final Guidance, nor existing regulations, confer any additional authority upon States, Tribes or EPA to regulate nonpoint sources of pollution."

5/ Petition for Corrective Action or Withdrawal of the National Pollutant Discharge Elimination System Program Delegation from the State of Indiana (hereinafter, "Petition for Corrective Action"), by the Hoosier Environmental Council, the Hoosier Chapter of the Sierra Club, and the Environmental & Policy Center of the Midwest to U.S. EPA Administrator Lisa Jackson, dated December 17, 2009, pp. 5-6.

6/ Antidegradation Rules, p. 29, 327 IAC 2-1.3-2(61) ("Toxic substances means substances that are or *may become* harmful to: aquatic life, humans, other animals, plants, or food chains when present in sufficient concentrations or combinations. The term includes those substances identified as toxic under Section 307(a) of the CWA.")(Emphasis added).

Not only do the federal antidegradation regulations not say what certain groups believe it to say, but as the U.S. Supreme Court has explained, the plain meaning of a statutory provision is not conclusive; i.e., "in the 'rare case' [in which] the literal application of a statute will produce a result demonstrably at odds with the intentions of the drafters . . . the intentions of the drafters, rather than the strict language, controls." *United States v. Ron Pair Enters., Inc.*, 489 U.S. 235, 242 (1989). As EPA recently explained in connection with its proposed Greenhouse Gas Tailoring Rule to limit the number of greenhouse gas emitters who must obtain new permits:

> The D.C. Circuit, in surveying the doctrine [of absurd results] over more than a century of jurisprudence, characterized the body of law in absolute numbers as comprising "legions of court decisions." *In re Franklyn C. Nofziger*, 925 F.2d 428, 434 (D.C. Cir. 1991). The U.S. Supreme Court cases include, among others, *Nixon v. Missouri Municipal League*, 541 U.S. 125, 132-133 (2004)("any entity" includes private but not public entities); *Train v. Colorado Public Interest Research Group, Inc.*, 426 U.S. 1, 23-24 (1976) (prohibition in Federal Water Pollution Control Act against discharging into navigable waters "pollutants," which are defined to include "radioactive materials," does not apply to three specific types of radioactive materials"; *Lynch v. Overholser*, 369 U.S. 705, 710 (1962) (statutory construction is not confined to the "bare words of the statute"); *Utah Junk Co. v. Porter*, 328 U.S. 39, 44 (1946)("literalness may strangle meaning").
>
> The D.C. Circuit has also had several decisions apply the absurd results doctrine to avoid a literal interpretation or application of statutory provisions. *See* ... *Environmental Defense Fund v. EPA*, 82 F.3d 451, 468-469 (D.C. Cir. 1996)(although Clean Air Act requires that a Federal action conform to the State implementation plan that is currently in place, EPA may instead require conformity to a revised implementation plan that State commits to develop; "[t]his is one of those rare cases ... [that] requires a more flexible, purpose-oriented interpretation if we are to avoid 'absurd or futile results.'")....

Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 74 Fed. Reg. 55292, 55306-55307 (Oct. 27, 2009).

Drafting antidegradation rules so broadly as to apply to anyone who discharges anything to any surface water of the state would lead to absurd results. The number of people who would call or apply to IDEM for determinations under the Antidegradation Rules could be staggering. In times of limited budgets, limited administrative resources, and limited private resources, IDEM should not want to be inundated with questions and determinations related to trivial discharges, where the federal antidegradation regulations are truly aimed at significant sources of increased loading of regulated pollutants to high quality waters.

Significantly, the antidegradation rules of the Great Lakes system[8/] and several states (Illinois, Michigan, and Minnesota) have limited the scope of their antidegradation programs to NPDES permittees only. And, each of these programs has been approved by EPA Region 5.

For these reasons, the IWQC and IMA suggest that IDEM specifically limit the Antidegradation Rules to NPDES permittees. To do so, we suggest that the following phrase be added to the end of 327 IAC 2-1.3-1(b), "... by any person required to have a National Pollutant Discharge Elimination System ("NPDES") permit pursuant to 327 IAC 5-2-2."

3. The Antidegradation Rules Should Focus on Regulated Pollutants Rather Than Undefined "Toxic Substances" and "Pollutants of Concern."

The Antidegradation Rules should be simplified to clearly and explicitly explain which substances are subject to the regulations. Contrary to what some may believe, IDEM does not have to anticipate and regulate every possible substance that could be introduced into a surface water of the state under the antidegradation regulations. The federal antidegradation regulations are clear that "States must adopt those water quality criteria that protect the designated use. Such criteria must be based on sound scientific rationale and must contain *sufficient parameters or constituents* to protect the designated use." 40 CFR § 131.11(a) (emphasis added). There is no requirement to include every possible parameter or constituent. Further, "Criteria are elements of State water quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular use. *When criteria are met, water quality will generally protect the designated use.*" 40 CFR § 131.3(b). Accordingly, there is no mandate that IDEM try to include every possible parameter that exists. Again, the state and private parties (who are required under the proposed rules to calculate criteria for substances that may have no water quality standards) have

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8/ 327 IAC 2-1.5-4

limited resources, limited administrative capacity, and in some cases limited expertise to make these determinations. Instead of a regulatory scheme that defines toxic substances and pollutants as encompassing anything and everything, the definitions should be narrowed and simplified as explained below. This would meet the rulemaking requirements under I.C. § 4-22-2-19.5(a) of minimizing expenses to regulated entities required to comply with the rules, achieving the regulatory goal in the least restrictive manner, avoiding duplication of existing standards in other state and federal laws, imposing ease of comprehension, and allowing for practical enforcement.

A. "Toxic substances" should be narrowed to mean those toxic substances specifically regulated by IDEM.

Constitutional due process requires "fair notice" of the prohibited conduct, which in turn provides for ease of comprehension and practical enforcement.[9] Pursuant to fair notice, the term "toxic substances" should be narrowed to mean those toxic substances identified as toxic under Section 307(a)(1) of the Clean Water Act rather than simply "substances that . . . may become harmful to aquatic life, humans, other animals, plants, or food chains."[10] This would be consistent with the federal antidegradation regulations, which similarly identify "toxic pollutants" as "those pollutants listed by the Administrator under section 307(a) of the Act." 40 CFR § 131.3(d). In the Sixteenth Century, Paracelcius coined the phrase "the dose makes the poison," which implies that all chemical agents are intrinsically toxic and whether they cause harm is only a question of dose.[11] The term "toxic substances" as defined may be invalidated on vagueness grounds because it does not provide fair notice of which substances are "toxic substances" governed by the Antidegradation Rules. Industry must be able to ascertain which substances are subject to the antidegradation rules. Accordingly, 327 IAC 2-1.3-2(60), which defines "toxic substances," should be amended so that toxic substances is defined as "those substances identified as toxic under Section 307(a)(1) of the Clean Water Act."

B. "Pollutant of concern" should be defined as a toxic substance under Section 307(a)(1) of the Clean Water Act which has an applicable water quality criterion.

IDEM defined "pollutant of concern" to mean "a pollutant that is reasonably expected to be present in: (A) a discharge based on the source and nature of the discharge; and (B) the receiving water in sufficient amounts to have a potentially detrimental affect on the designated or existing uses of the receiving water."[12] Many

9/ *Healthscript, Inc. v. State*, 770 N.E.2d 810, 815-816 (Ind. 2002).

10/ Antidegradation Rules, p. 29, 327 IAC 2-1.3-2(61).

11/ Bernard D. Goldstein and Mary Sue Henifin, *Reference Guide on Toxicology*, Reference Manual on Scientific Evidence, Second Edition, p. 403 (2000).

12/ Antidegradation Rules, p. 27, 327 IAC 2-13-2(43).

have suggested that this definition should be revised so that the permittees know exactly which parameters are "pollutants of concern" because the definition of a "pollutant of concern" as simply meaning a "pollutant" is unconstitutionally vague, fails to provide fair notice of which substances were prohibited, and could lead to arbitrary and capricious enforcement.[13/] We propose that the term "pollutant of concern" be defined as "a pollutant that is identified as a toxic under Section 307(a)(1) of the Clean Water Act that has an applicable water quality criterion and that is reasonably expected to be present in: (A) a discharge based on the source and nature of the discharge; and (B) the receiving water in sufficient amounts to have a potentially detrimental effect on the designated or existing uses of the receiving water." This modification would achieve the regulatory purpose in a less restrictive manner and be easily understood by IDEM and the regulated community.

As a further example, Ohio's antidegradation rules define a "regulated pollutant" as meaning "any parameter for which water quality criteria have been adopted in, or developed pursuant to, Chapter 3745-1 of the Administrative Code, with the exception of biological criteria, and any other parameter limited in a national pollutant discharge elimination system permit as a result of new source performance standards, best conventional pollutant control technology, best available technology economically achievable or best practical control technology currently available for the appropriate categorical guidelines of 40 C.F.R." See Ohio Admin. Rule 3745-1-05(A)(21), (2001). Indiana could consider adopting a similar provision.

In conclusion, narrowing the scope of the Antidegradation Rules to specifically identified regulated pollutants would achieve compliance with the goals of I.C. § 4-22-2-19.5(a) of minimizing expenses to regulated entities required to comply with the rule, achieving the regulatory goal in a less restrictive manner, avoiding duplicate standards found in other state and federal laws[14/], improving ease of comprehension, and allowing for practical enforcement. And, IDEM would not have the administrative burden of reviewing the regulated community's work and independently calculating criteria for substances that have no water quality standards.

13/ In addition to the prohibitions identified as unconstitutional in *Brown* and *Healthscript* (*see supra*, p. 4, Section 2), the Indiana Supreme Court and other Indiana courts have repeatedly and uniformly rejected pollution exclusions in insurance policies as ambiguous and unenforceable for well over a decade. *See, e.g., American States Ins. Co. v. Kiger*, 662 N.E.2d 945, 947-49 (Ind. 1996); *Seymour Mfg. Co. v. Commercial Union Ins. Co.*, 665 N.E.2d 891, 892 (Ind. 1996); *Freidline v. Shelby Ins. Co.*, 774 N.E.2d 37, 40 (Ind. 2002), *summarily affirming* 739 N.E.2d 178, 184 (Ind. Ct. App. 2000); *The Travelers Indem. Co. v. Summit Corp. of America*, 715 N.E.2d 926, 934-35 (Ind. Ct. App. 1999); *Governmental Interins. Exchange v. City of Angola*, 8 F.Supp.2d 1120, 1128 (N.D. Ind. 1998).

14/ Many other Indiana laws generally prohibit discharging contaminants into the environment, both civil (I.C. § 13-30-2-1) and criminal (I.C. § 13-30-10-1.5), and NPDES permittees are required to provide notice of certain new or increased discharges of toxic pollutants (327 IAC 5-2-9).

4. Best Available Demonstrated Control Technology Should Be Adequately Demonstrated, Reasonably Available, and Applicable to the Permitted Facility.

Best available demonstrated control technology or "BADCT"[15/] should mean the highest statutory and regulatory requirements for point sources, including applicable new source performance standards and best management practices for nonpoint source pollutant controls, either of which have been *adequately demonstrated* and which are *reasonably available* to the discharger (similar to limitations existing under the Great Lakes System and Michigan and Ohio law), and which are otherwise *applicable* to the permitted facility as defined by the existing regulatory program. The laundry list of highest statutory and regulatory requirements appearing at 327 IAC 2-1.3-2(3)(C) only serves as fodder for lawsuits. If the requirements are neither adequately demonstrated nor reasonably available, they should not be considered the best available demonstrated technology.

Further, the IWQC and IMA are concerned that the highest statutory and regulatory requirements must be applicable to the permitted facility at issue. This may be an otherwise obvious point, but certain groups have argued in the past for the application of requirements for a different industrial source category standard than that applicable to a particular permitted facility; e.g., applying standards for the aluminum industry to resins. Thus, the Antidegradation Rules should be re-written for clarity, to provide certainty to the regulated community that it will not be held to unachievable aspirational standards, and to remove unnecessary additional administrative burden from IDEM.

5. The *De Minimis* Test Should Be at Least as Favorable as Wisconsin's, Which is EPA Approved.

The Antidegradation Rules do not achieve the regulatory goal in the least restrictive manner. EPA adopted the *de minimis* test because it "recognize[d] that certain activities, although they may result in some lowering of water quality, will not lower water quality to such an extent as to result in a significant lowering of water quality. EPA's goal in allowing States ... to identify certain increases as *de minimis* was to provide a means of *reducing the administrative burden on all parties associated with activities of little or no consequence to the environment.*"[16/] This in turn allows states to focus their resources where they may result in the greatest environmental protection.[17/] "EPA has afforded the states ... some discretion in determining what constitutes a

15/ Antidegradation Rules, p. 23; 327 IAC 2-1.3-2(3).

16/ SID, p. 208, Ch. VII (C)(2)(a)(i) (emphasis added).

17/ Memorandum regarding Tier 2 Antidegradation Reviews and Significant Thresholds, Ephraim S. King, Director Office of Science and Technology, EPA, (August 10, 2005) (hereinafter, the "King Memo"), p. 2.

significant lowering of water quality. ... Relying upon input offered during a four-year open public process involving environmental groups, industry representatives, and other experts, with numerous opportunities for public input, the directors of the eight Great Lake states and EPA technical experts reached a consensus on a significance threshold value of ten percent (10%) of the available assimilative capacity, coupled with a cumulative cap."[18] To that end, EPA's scientists "identified three criteria to be used in classifying an increased loading as de minimis: ... (1) only non-bioaccumulative chemicals of concern [("non-BCC")] will be released as a result of the proposed activity responsible for the anticipated lowering of water quality; (2) the proposed lowering of water quality uses less than 10 percent of the available assimilative capacity; and (3) for [priority pollutants] included in 40 CFR 132.2, Table 5, at least ten percent of the total assimilative capacity remains unused following lowering of water quality."[19]

Notwithstanding the Great Lakes System 10% *de minimis* test, EPA has approved Wisconsin's *de minimis* test, which is more easily understood by regulators and the regulated community and achieves its purpose in a way that minimizes the expense to the regulated entities required to comply with the rule. Wisconsin's *de minimis* test provides that degradation is considered significant and subject to antidegradation review if the proposed new or increased discharge, along with all other new or increased discharges, taking into account any changes in assimilative capacity over time, *results in an expected level greater than one-third of the assimilative capacity for any indicator parameter other than dissolved oxygen.*[20]

IDEM's Antidegradation Rules, by comparison, are more limited. Degradation is considered *de minimis* for a high quality water that is not an outstanding state resource water where the proposed net increase in the loading of a pollutant of concern is less than or equal to 10% of the existing unused loading capacity for Tier 1 and 20% of the existing unused loading capacity for Tier 2.[21] Further, the benchmark unused loading capacity is 75% of the unused loading capacity established at the time of the permit issuance.[22] Degradation is considered *de minimis* for a high quality water that is an outstanding state resource water outside the Great Lakes basin of a non-BCC toxic substance, where the proposed net increase in the loading greater than 1% of the existing unused loading capacity for Tier 1 or 2% of the unused loading capacity for Tier 2, where the benchmark unused loading capacity is 97.5% of the unused loading capacity established at the time of the permit issuance.[23] The IWQC and IMA's

18/ King Memo, p. 2.

19/ SID, pt 207, Ch. VII (C)(2)(a)(i).

20/ NR 207.05(4).

21/ Antidegradation Rules, pp. 32-33, 327 IAC 2-1.3-4(b)(1)(A)(i).

22/ Antidegradation Rules, p. 32, 327 IAC 2-1.3-4(b)(1)(A)(i)(DD).

23/ Antidegradation Rules, p. 32, 327 IAC 2-1.3-4(b)(1)(B).

preferred *de minimis* test would be that of Wisconsin for high quality waters that are not outstanding resource waters, which EPA Region 5 has approved.

In addition, the 10% threshold was originally established with the intent of protecting the Great Lakes. Therefore, 10% should be the starting point for the OSRW designation in Indiana and the other so designated high quality waters should have a de minimis threshold that is significantly higher like Wisconsin.

In a recent Petition for Corrective Action, some have argued that allowing for *de minimis* discharges might not be appropriate at all.[24] This position is clearly belied by the Supreme Court and D.C. Circuit Court opinions (*supra*, pp. 4-6, Section 2) concerning the doctrines of "absurd results" and "administrative necessity." The federal antidegradation regulations only require the State to adopt water quality criteria containing "sufficient parameters or constituents to protect designated uses." 40 CFR § 131.11(a)(1). "When these criteria are met, water quality will generally protect the designated use." 40 CFR § 131.3(b).

6. The Demonstration Requirement for Exemptions to Antidegradation Should Be Eliminated.

The requirement to submit demonstration information for exemptions under 327 IAC 2-1.3-4(b)(3) should be eliminated. IDEM's antidegradation demonstration does not achieve the regulatory goal in the least restrictive manner. Activities requiring the submission of an antidegradation demonstration are identified at 327 IAC 2-1.3-4(b)(3)(A) - (F)[25], which require an antidegradation demonstration complying with 327 IAC 2-1.3-6, and 327 IAC 2-1.3-4(b)(4)(A) - (D), which require the submission of an exemption justification according to 327 IAC 2-1.3-5. The antidegradation demonstration application at 327 IAC 2-1.3-6 is very onerous.[26]

Antidegradation demonstrations should permit IDEM to fairly quickly determine whether or not the action proposed by the discharger that will result in a significant lowering of water quality is both necessary and will support important social and economic development.[27] By comparison, the Great Lakes Water Quality Antidegradation Policy antidegradation demonstration seeks limited information:

24/ Petition for Corrective Action, p. 7.

25/ Antidegradation Rules pp. 33-34.

26/ For example, if a person remediates VOC-impacted groundwater, the remediated water must meet the 5 ppb maximum contaminant level similarly required under the Safe Drinking Water Act. Water that is otherwise safe by regulatory drinking water standards should not have to undergo an antidegradation exemption demonstration.

27/ SID, p. 203-204, Ch. VII (A)(1).

(1) An analysis of cost-effective pollution prevention alternatives and techniques available to the entity to eliminate or significantly reduce the extent to which the increased loading results in a lowering of water quality;
(2) An analysis of alternative or enhanced treatment techniques available;
(3) An analysis of important social or economic development and benefits foregone if the lowering of water quality is not allowed; and
(4) Making special provision for remedial actions under CERCLA, RCRA, and similar actions pursuant to Federal or State law.[28]

In response to public comments that more detailed guidance was needed on all aspects of the demonstration, EPA responded that it "was convinced that it is not possible to write guidance that would cover adequately every possible situation. In addition, including greater detail would hinder efforts by ... States to adapt the final Guidance to existing regulatory structures and thereby slow its ability to respond to requests to lower water quality."[29] No other state in Region 5 requires such onerous demonstration requirements.

EPA's final Guidance requires dischargers to identify "cost-effective" pollution prevention alternatives to eliminate or greatly reduce the extent of significant lowering of water quality.[30] To that end, EPA agreed to use a ten percent (10%) additional cost benchmark as guidance as the easiest measure of affordability to implement available treatment options.[31] IDEM's proposed Antidegradation Rules contain no similar ten percent (10%) additional cost benchmark threshold to identify cost-effective pollution prevention alternatives.[32] Accordingly, simplifying this process and following EPA's guide of "using a ten percent increase in treatment costs as a benchmark for determining whether or not alternative or enhanced treatment options identified through this analysis were affordable."[33] Allowing for a benchmark guide of 10% additional cost to determine cost-effective pollution prevention alternatives would meet the rulemaking requirements under I.C. § 4-22-2-19.5(a) of minimizing expenses to regulated entities required to comply with the rules, achieving the regulatory goal in the least restrictive manner, avoiding duplication of existing standards in other state and federal laws, improving ease of comprehension, and allowing for practical enforcement.

28/ Appendix E to 40 CFR 132, Great Lakes Water Quality Initiative Antidegradation Policy, III. Antidegradation Demonstration.

29/ SID, pp. 219-220.

30/ SID, p. 220.

31/ SID, p. 220.

32/ Antidegradation Rules, p. 35; 327 IAC 2-1.3-6(b)(11) examines "the cost of the water pollution controls associated with the proposed activity, and (b)(12) examines "the availability, reliability, cost-effectiveness and technical feasibility of ... degradation mitigation techniques and alternatives."

33/ SID, p. 223.

7. The Public Notice Provisions Are Onerous and Unnecessary.

The antidegradation public participation requirement may be satisfied by providing public notice and the opportunity for the public to request a hearing. The IWQC and IMA request that 327 IAC 2-1.3-7(b)(3)[34] be deleted from the Antidegradation Rules. The IWQC and IMA believe that IDEM notifying the public of an antidegradation demonstration being received from an applicant is sufficient. Applicants should not have to hold a public meeting prior to submitting an application. The SID states as follows:

> Opportunity for public comment is an essential element of the antidegradation decision making process and is required under Federal regulations at 40 CFR 131.12. If the tentative decision relates to an activity subject to a NPDES permit, the public participation requirements may be fulfilled by the public notice of the draft permit and fact sheet. In any event, the public notice of the tentative decision must either set forth the extent to which water quality will be significantly lowered and the basis for the tentative decision to allow the lowering, or, if analysis of the demonstration has been deferred, a tentative decision to deny the request to lower water quality pending public comment and analysis of the information obtained through antidegradation demonstration.[35]

While public participation is required under 40 CFR 131.12(a)(2), there is no mandate from federal law imposing public meetings.[36] IDEM can fulfill its public consultation obligation by meeting with advisory groups, as it has thus far.[37] Additionally, public meetings are not similarly required for the issuance of an NPDES permit.

If IDEM is going to require a public meeting process, it should at least have requirements similar to those already existing for other programs. The Antidegradation Rules do not even require that the 25 persons be adults or sign their request for a public meeting.[38] Additionally, the Antidegradation Rules require a regulated entity to hold a

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34/ Antidegradation Rules, p. 38.

35/ SID, p. 225.

36/ *See* 40 CFR 25, Public Participation In Programs Under The Resource Conservation and Recovery Act, The Safe Drinking Water Act, And The Clean Water Act.

37/ 40 CFR 25.4.

38/ As a comparison, the public hearing requirements for a solid waste disposal facility requires the filing of a petition signed by one hundred (100) adult individuals who reside in the county affected

public meeting before submitting its application to IDEM, which is nonsensical and not required by any other state that has adopted an antidegradation rule.[39] In fact, public hearings have traditionally been held only after an application for a permit has been issued and received preliminary approval by IDEM. Holding a hearing before even submitting an application makes no sense and will only adds to the administrative burden and expense and lead to possible confusion to the public. Accordingly, the public meeting provisions do not meet the rulemaking requirements under I.C. § 4-22-2-19.5(a) of minimizing expenses to regulated entities required to comply with the rules, achieving the regulatory goal in the least restrictive manner, and avoiding duplication of existing standards in other state and federal laws.

8. The Antidegradation Rules Fail to Appropriately Consider the Fiscal Impact of the Proposed Rules.

The IWQC and IMA have estimated the requirement to hold public meetings will annually cost dischargers between $77,224 and $165,480. For the past five calendar years, 2009 inclusive, IDEM has received, on average, 49 new NPDES applications each year with actual numbers ranging from a low of 38 to a high of 60.[40] IDEM has received, on average, 56 modification requests annually.[41] This most likely means that the annual estimate of public meetings to be held by existing discharge permit holders seeking modifications or new applicants could range from a low of 49 (assuming all new permits alone required a public meeting) to a high of 105 (assuming all new permits and permit modifications required a public meeting. Below is a table containing the annual cost estimates for a permitee to development limits and hold a public meeting. This table does not include any additional costs for unused loading capacity calculation costs. Added annual costs to process a technology-based and water quality-based limit for a single pollutant will increase the annual program costs from $176,253 to $377,685. The table below most likely significantly under-estimates costs as many activities *de minimis* activities are not included in these calculations.

or own real property within one mile of the site of the proposed or existing facility. *See* I.C. § 13-15-3-3(b).

39/ Antidegradation Rules, p. 38, 327 IAC 2-1.3-7(b)(3).

40/ Antidegradation Rules, p. 2.

41/ Antidegradation Rules, p. 2.

Activity	Frequency	Cost Estimates (1990 dollars)			Estimated average annual costs for 49 permits	Estimated high average annual costs for 105 permits
		Low	Average	High		
Develop a technology mass-based permit limit at a previously unpermitted facility assuming technology has been preselected[42/]	1 time	$327	$917	$1,497	$44,933	$96,285
Provide technical guidance on a set technology based limit[43/]	1 time	$38	$187	$337	$9,163	$19,635
Develop and draft water quality based effluent limits	1 time	$327	$917	$1497	$44,933	$96,285
Conduct a public meeting	1 time	$1,123	$1,576	$1,871	$77,224	$165,480
Total					$176,253	$377,685

The Proposed Rule would have substantial adverse social and economic impacts, due to requirements that have no sound scientific basis. Moreover, the scope of the antidegradation rules is overly broad, and the antidegradation review process requires IDEM to make determinations concerning complicated social and economic

42/ Administrative Cost Components and Frequency per Facility, Actual cost values provided by U.S. EPA Office of Water, ECONOMIC ANALYSIS OFFINAL EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS FOR THE PHARMACEUTICAL MANUFACTURING INDUSTRY SECTION TEN: COST AND BENEFITS OF THE FINAL PHARMACEUTICAL INDUSTRY EFFLUENT GUIDELINES AND MACT STANDARDS RULE, Table 10-2.

43/ Providing technical guidance on a set technology-based limit, developing and drafting water-quality based effluent limits, and conducting a public meeting are estimated to be equivalent to issuing a technology based limit. This value is likely to be low in that water quality modeling usually takes longer. This is presumed to be a low, conservative estimate.

factors, for which the agency is ill-equipped. As a result, implementation of the Antidegradation Rules has the potential to create substantial additional delays in the processing of permit applications and requests for permit modifications.

Antidegradation review can be time-consuming and expensive. Such review also can introduce a substantial element of uncertainty into business planning and trying to predict what will be the outcome. Therefore, the Antidegradation Rules should also contain (1) an applicability provision that uses a bright line trigger that necessitates a new or increased permit limits; and (2) a provision pertaining to the time for IDEM's rejection or approval of exemption applications. The regulated community should be informed as quickly as possible whether IDEM accepts or rejects an exemption application, and need the certainty of knowing that there is a clear time period by which they can expect such a determination.

In addition, it is possible that those in the regulated community may encounter situations in which they will have a temporary increase due to maintenance issues or the installation of new equipment, which cause discharges within existing capacity and pursuant to an approved operation within the context of their permit. Requiring permittees to obtain confirmation from IDEM to be sure they are not triggering antidegradation review in such cases would be unduly burdensome for both the agency and the permittee. Similarly, there may be cases in which a permittee may have other types of short term, emergency use needs. We suggest that the Antidegradation Rules contain a provision to clearly address this issue.

NPDES permits are not issued unless the proposed discharge is treated with appropriate technology and complies with water quality standards. However, the Antidegradation Rules go beyond assuring that the discharges are safe by requiring review of changes in water quality that may result from increased or new discharges, even though those changes would not cause any violation of water quality standards.

Antidegradation review imposes significant additional costs on the regulated community and ultimately on their customers. Those costs are principally the additional time and expense involved in complying with the antidegradation requirements. Where the effect of a new or increased discharge on the environment is insignificant (*i.e.*, is less than the de minimis threshold), there is no benefit to requiring this commitment of time and money by the public, the regulated community, and government agencies. Requiring extensive review of insignificant or inconsequential discharges that clearly will remain below the water quality standards is punitive to industry without offering any meaningful added protection to human health or the environment.

Senate Enrolled Act 431 (P.L. 140-2000) ("SEA 431") requires the Board to adopt a rule for outstanding state resource waters ("OSRWs") that includes a de minimis quantity of additional pollutant load for which a new or increased permit limit is required and below which antidegradation procedures do not apply. This de minimis concept should be extended to all high quality waters.

SEA 431 addressed, among other things, antidegradation implementation procedures for OSRWs. In particular, it amended IC § 13-18-3-2 to require the Board to adopt antidegradation implementation procedures that include the following:

> (m)...(1) A definition of significant lowering of water quality that includes a de minimis quantity of additional pollutant load;
>
> (A) for which a new or increased permit is required; and
>
> (B) below which antidegradation implementation procedures do not apply.

See SEA 431, Section 17, codified at IC § 13-18-3-2-(m)(1).

This language unambiguously requires a de minimis level for OSRWs. This de minimis level is triggered when a discharger needs a new or increased permit limit. If the new or increased discharge is below the de minimis level, the antidegradation implementation procedures do not apply to the discharge. Although the provisions of SEA 431 do not expressly apply to high quality waters that are not designated as OSRWs, it only makes sense to extend the de minimis concept in SEA 431 to all high quality waters. Otherwise, the antidegradation implementation procedures for regular high quality waters would be more stringent than the requirements for OSRWs.

9. The Scope of the Comments in the Petition for Corrective Action is Not Appropriate for this Rulemaking.

The environmental groups' comments and challenges set forth in their Petition for Corrective Action merit little or no consideration. However, the IWQC and IMA submit the following comments to *some* of the environmental groups' claims.

First, the IWQC and IMA agree that some of the amendments to the Antidegradation Rules conflict with existing case law and are not consistent with 40 CFR § 131.12, but <u>not</u> the amendments which are the focus of the environmental group's Petition for Corrective Action. As explained previously, the Antidegradation Rules should be narrowed in scope to apply only to NPDES permittees, certain broad definitions should be amended or eliminated from the rules to allow regulated persons to easily and definitively understand which substances are regulated under the rules, and the rules should be simplified for ease of comprehension and enforcement. But the environmental groups' challenges go too far, suggesting that every substance that could in any way affect the assimilative capacity of receiving waters[44/] should be policed by an over-burdened agency with limited available resources. Likewise, the environmental groups' attempt to fold into an antidegradation regime the regulation of nutrients and

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44/ Petition for Corrective Action, p. 5.

sediments from nonpoint source discharges[45] is inappropriate since the antidegradation rules are only aimed at point source discharges subject to NDPES permitting.

The environmental groups also take aim at the exceptions for *de minimis* discharges, believing them unacceptable and inappropriate, especially in light of EPA Region 8's disapproval of Utah's antidegradation rules.[46] Curiously, EPA Region 8 began its analysis by noting that the *de minimis* issue was considered at length in developing the water quality guidance and requirements for the Great Lakes:

> Relying on input offered during the four year open public process involving environmental groups, industry representatives, and other experts, with numerous opportunities for public input, the directors of the eight Great Lakes states and EPA technical experts reached a consensus on a significance threshold value of ten percent of the available assimilative capacity, coupled with a cumulative cap. They determined that this threshold represented a reasonable balance between the need to limit the number of detailed antidegradation reviews and the need to maintain and protect high quality waters. They reached a consensus that any individual decision resulting in less than a ten percent loss of assimilative capacity represents minimal risk to the receiving water, and exempting such proposals from antidegradation review is fully consistent with the objectives and goals of the Clean Water Act.

EPA Actions on Revisions to Utah's Water Quality Standards, Region 8, September 30, 2009, p. 13.

Region 8 based its narrow interpretation of the legality of *de minimis* exceptions upon *Kentucky Waterways Alliance v. Johnson*, 540 F.3d 466 (6th Cir. 2008). The court in *Kentucky Waterways* was focused on the narrow language of the law,[47] rather than on a common sense interpretation of the federal antidegradation regulations, as

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45/ Petition for Corrective Action, p. 6.

46/ Petition for Corrective Action, p. 7, n. 10.

47/ The court began its analysis by noting that that "The text of 40 C.F.R. § 131.12(a)(2) does not provide for any exceptions to Tier II review based on the type or quantity of new sources of pollution." *Kentucky Waterways*, 540 F.3d at 483. However, it appears the parties did not argue, and the court did not consider, the more narrowed focus of 40 CFR § 131.11(a)(1), which mandates that States must adopt those water quality criteria that contain "*sufficient* parameters or constituents to protect the designated use." Clearly, by including the word "sufficient," it meant that States did not have to require antidegradation demonstrations for each and every possible pollutant.

exemplified by the detailed analysis and conclusions that resulted in the Great Lakes System *de minimis* exceptions and the Supreme Court case law on "absurd results" and "administrative necessity." (No where in the *Kentucky Waterways* opinion did the underlying parties argue to the court the application of the doctrines of "absurd results" or "administrative necessity.") Further, to say that no authority exists to suggest a 25% reduction in water quality could be considered insignificant,[48] fails to take into account Wisconsin's *de minimis* exceptions, which were approved by EPA Region 5.

EPA has interpreted its regulation governing high quality waters to authorize states to allow a *de minimis* amount of lowering of water quality without triggering Tier 2 review. In its 1998 ANPRM, EPA stated that "Where the degradation is not significant, the antidegradation review is typically terminated for that proposed activity," and that "applying antidegradation requirements only to activities that will result in a significant degradation is a useful approach that allows States ... to focus limited resources where they may result in the greatest environmental protection." 63 Fed. Reg. 36742, 36783; *Ovec v. Whitman*, 279 F.Supp.2d 732, 769 (S.D.W.V. 2004)(concluding that EPA's regulation does not preclude a state from permitting some *de minimis* amount of pollution before imposing Tier 2 review.) Additionally, following the environmental group's argument would result in antidegradation being a "no growth" rule, which it "was never designed or intended to be such. [Instead] it is a policy that allows public decisions to be made on important environmental actions." EPA's Water Quality Handbook, Ch. 4, Section 4.5, SID, p. 203, Ch. VII (A)(1).[49]

Finally, the environmental groups contend that the Indiana Legislature has unlawfully limited IDEM's authority to implement the federal antidegradation regulations.[50] It has not. Contrary to the environmental groups' beliefs, EPA's authority to approve *de minimis* exceptions is not as limited as described in *Kentucky Waterways*, where the parties did not argue the concepts of absurd results and administrative necessity. Further, the implementation of *de minimis* exceptions originated not with House Enrolled Act 1162 (P.L. 78-2009), but with Senate Enrolled Act 431 (P.L. 140-2000), which the environmental groups have not mentioned. Finally, the requirement that the Commissioner give substantial weight to any applicable determinations by governmental entities[51] concerning economic and any other impact analysis merely affords deference to the particular expertise of the government entities that focus their

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48/ Petition for Corrective Action, p. 7.

49/ "The protection of high quality waters under antidegradation causes considerable confusion and controversy. It is often interpreted incorrectly as an absolute prohibition on lowering of water quality in high quality waters. Such a prohibition would amount to a 'no growth' policy which is not consistent with EPA's position as expressed in the regulations."

50/ Petition for Corrective Action, pp. 8-9.

51/ I.C. § 13-18-3-2(j)(1), as amended by P.L. 78-2009, Section 15.

energy and resources on economic development. It does not usurp the Commissioner's ultimate decision-making authority.[52]

10. The Definition of an "Outstanding National Resource Water," at I.C. § 13-11-2-149.5, Should be Amended to be Consistent with P.L. 78-2009, Section 5.

The definition of an "outstanding national resource water," at I.C. § 13-11-2-149.5 is not consistent with House Enrolled Act 1162 (P.L. 78-2009), Section 5, which defines "outstanding national resource water" for purposes of section 50.5 and IC 13-18-3. Specifically, P.L. 78-2009, Section 5 stated that an "'outstanding national resource water' means a water designated as such by the general assembly after recommendations by the water pollution control board and the environmental quality service council under IC 13-18-3-2(n) and IC 13-18-3-2(o)...," and striking I.C. § 13-18-3-2(p). Instead, the Antidegradation Rules at 327 IAC 2-1.3-2(35)[53] define "outstanding national resource water" with references IC 13-18-3-2(o) and IC13-18-3-2(p). The definition of "outstanding national resource water" fails to include I.C. § 13-18-3-2(n) and wrongly includes I.C. § 13-18-3-2(p).

11. The word "value" following the "water quality criterion" should be removed because the word is undefined and meaningless.

Throughout 327 IAC 2-1.3, the word "value" follows the term "water quality criteria" or "water quality criterion." The word "value" is vague, meaningless, and will lead to confusion. The term should be removed.

12. The IWQC and IMA Believe That Several Decisions Made by IDEM in the Antidegradation Rules Can be Supported, But Several Sections in the Rules Need to be Changed or Deleted.

In addition to the comments above, the IWQC and IMA have several miscellaneous comments that need considered or addressed. The comments are arranged in the sequence of the Indiana Register Notice and do represent the priorities or the importance of how comments should be addressed.

A. RESPONSE TO COMMENTS ISSUES

1. The IWQC and IMA support IDEM's response to comments that projects which require air pollution control technology that generate wastewater under the Clean Air Act and groundwater remediation projects are activities that should not be required to undergo a full antidegradation

52/ I.C. § 13-18-3-2(s).

53/ Antidegradation Rules, p. 26.

review with a detailed demonstration of necessity and socio-economic benefit.[54] The IWQC and IMA support IDEM efforts to reduce the burden for situations that are clearly a beneficial to a community or the environment.

ii. The IWQC and IMA do not support IDEM's response to comments that an antidegradation demonstration is required when a new 316(a) variance is granted to a discharger.[55] CWA 316(a) variances are simply not subject to antidegradation review under the law. The Antidegradation Rules must, as a matter of law, recognize that CWA § 316(a) takes precedence over antidegradation review. IDEM's response to comment incorrectly states that "The 316(a) variance does not include a review of alternatives that would eliminate or reduce the need or the effluent limits that exceed the WQBELs for temperature."[56]

The *Water Quality Standards Handbook*, Second Edition, Chapter 4.2, states as follows:

> The requirement for potential water quality impairment associated with thermal discharges contained in section 131.12(a)(4) of the regulation is intended to coordinate the requirements and procedures of the antidegradation policy with those established in the Act for setting thermal discharge limitations. Regulations implementing section 316 may be found at 40 CFR 124.66. ***The statutory scheme and legislative history indicate that limitations developed under section 316 take precedence over other requirements of the Act.***

Further, 33 U.S.C. § 1326(a) provides:

> **(a) Effluent limitations that will assure protection and propagation of balanced, indigenous population of shellfish, fish, and wildlife.** With respect to any point source otherwise subject to the provisions of section 1311 of this title or section 1316 of this title, whenever the owner or operator of any such source, after opportunity for

54/ Antidegradation Rules, p. 5.

55/ Antidegradation Rules, p. 6.

56/ Antidegradation Rules, p. 6.

public hearing, can demonstrate to the satisfaction of the Administrator (or, if appropriate, the State) that any effluent limitation proposed for the control of the thermal component of any discharge from such source will require effluent limitations more stringent than necessary to assure the projection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water into which the discharge is to be made, the Administrator (or, if appropriate, the State) may impose an effluent limitation under such sections for such plant, with respect to the thermal component of such discharge (taking into account the interaction of such thermal component with other pollutants), that will assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on that body of water.

iii. The IWQC and IMA support IDEM's decision response to comments that the calculation of "total loading capacity" be established at the time of request to include any additional proposed effluent flow.[57] The IWQC and IMA believe that IDEM is correct in including the proposed flow of an increase in discharge for both municipal and industrial facilities in the calculation of total loading capacity.

iv. The IWQC and IMA do not support IDEM's decision to lower the threshold for what is a de minimis lowering of water quality" for OSRWs.[58] IDEM should make the threshold de minimis lowering of water quality at least 10% of the unused loading capacity.

v. The Antidegradation Rules should provide some criteria for justifying exemptions. In the response to comments, IDEM that the draft rule has a finite list of exemptions and the discharger is required to justify claiming an exemption.[59]

57/ Antidegradation Rules, p. 10

58/ Antidegradation Rules, p. 10

59/ Antidegradation Rules, p. 13

B. DRAFT RULE COMMENTS

i. 327 IAC 2-1.3-(1)(c) should be deleted from the Antidegradation Rules.[60] As noted in the summary/response from the first comment period, "All existing Indiana-issued general permits by rule will be evaluated for compliance with antidegradation standards as required by P.L. 78-2009 (House Enrolled Act 1162, 2009 General Assembly regular session.)"[61] In essence, the rules for general permits have to undergo antidegradation review, not each general permit.

ii. 327 IAC 2-1.3-2(1) should add language that clarifies that a significant lowering of water quality must be based on an increase in concentration of a pollutant followed by an increase in pollutant loading.[62] As written, the definition of "Antidegradation demonstration application" is inconsistent with the definition of "Significant lowering of water quality" in 327 IAC 2-1.3-2(55)[63].

iii. The definition of "Application" in 327 IAC 2-1.3-2(2)(B) is too broad in including a "determination" related to a permit.[64] Only determinations made for requests for a new or increased pollutant loading that causes an increase of a pollutant in the environment should be included in this definition. There are many determinations that IDEM can make on an NPDES permit that covers many non-numeric permit increase limit issues.

iv. The *E. coli* limits in the definition of "Best available demonstrated control technology" (BADCT) in 327 IAC 2-1.3-2(3)(A)(v) should be deleted.[65] These values are water quality based limits, not technology based limits. Furthermore, as written, these limits appear to require year-round disinfection, which could lead to a 71% increase in operating costs of disinfection systems. *The additional cost for year round disinfection using UV light is estimated to be $752,719 (5 out 12 months) for all 465 public owned treatment facility using average costs provided in the table below to meet this BDCAT limitation.*

60/ Antidegradation Rules, p. 22.

61/ Antidegradation Rules, p. 7.

62/ Antidegradation Rules, p. 22.

63/ Antidegradation Rules, p. 28.

64/ Antidegradation Rules, pp. 22-23.

65/ Antidegradation Rules, p. 23.

Cost Category	Large Scale UV Average Cost/unit	Small Scale UV Average Cost/unit	Average Cost
Energy	$3300	$35-40	$1668.75
Lamps and Chemicals	$2840	$75-80	$1458.75
Cleaning	$1180		
Maintenance	$1440	$50-100	$757.50
Process control/Labor	$6240		
Testing	$4160		
Total			$3,885.00

Sources: U.S. EPA "Wastewater Technology Fact Sheet Ultraviolet Disinfection," EPA 832-F-99-064, September 1999; U.S. EPA "Onsite Wastewater Treatment Systems Technology Fact Sheet 4, Effluent Disinfection Processes"

Dechlorination tablets	$30-50
Labor	$75-100
Misc. repairs & replacements	$15-25
Analytical support/testing	Not estimated

Operation and maintenance would consist of tablets ($30 to $50 per year), labor ($75 to $100 per year), and miscellaneous repairs and replacements ($15 to $25 per year), in addition to any analytical support required. Installed costs of UV units and associated facilities are $1,000 to $2,000. O/M costs include power ($35 to $40 per year), semiskilled labor ($50 to $100 per year), and lamp replacement ($70 to $80 per year), plus any analytical support.

V. 327 IAC 2-1.3-2(3)(B) should be deleted from the rule.[66] This language provides no relevant requirements as effluent limitations are developed on a case-by-case basis.

VI. 327 IAC 2-1.3-2(3)(C) should modified to state that a direct discharger subject to categorical guidelines should meet applicable best conventional pollution control technology (BCT), best available technology economically achievable (BAT), best practicable control technology currently available (BPT) or new source performance standards (NSPS).[67] This change is required because IDEM cannot substantiate that "existing source" discharges can cost-effectively automatically upgrade treatment systems to meet "new source" technology based limitations. For example, in Indiana there are three electrical generating facilities that operate fly ash pond systems that are required to meet BPT, BCT and BAT limitations. If all three of these facilities became subject to a new requirement or made a change that would require an antidegradation demonstration review, the current definition of "Best available

66/ Antidegradation Rules, p. 23.

67/ Antidegradation Rules, p. 23.

demonstrated control technology" (BADCT) would require each of these facilities to convert a wet fly ash pond to a dry system with a landfill. The estimated cost deferential capital costs and annual operating and maintenance costs for these three facilities to upgrade from BAT to NSPS could be as much as $90 million and $84 million, respectively. These costs represent the comparative cost of raising a dam to maintain a wet system and expenses of piping.

The above figures are based on one company's analysis of converting a system in West Virginia. An EPA database shows 7 Indiana companies (6 utilities and Alcoa) have 53 ash ponds. The number of ponds is somewhat misleading, for example, one company is listed as having one bottom ash and three fly ash ponds, when the fly ash ponds are actually one large impoundment with three interconnected basins. Nonetheless, there are many fly ash ponds in Indiana. One company obtained a cost estimate to covert from fly ash ponds to a landfill. The cost of conversion was estimated to be $53 million (converting to dry fly ash handling and building Phase I of a landfill). This does not include the costs for closing out the fly ash ponds or doing anything to the bottom of the fly ash ponds. It also does not include the estimated cost ($80 million) for a new wastewater treatment facility to treat other wastewaters currently going to the fly ash ponds.

corrected to $35M by Bill Wagner e-mail to MAStevens 2-1-10

vii. IDEM should not include the term "narrative statements" in the definition of "criterion" in 327 IAC 2-1.3-2(14).[68] Narrative statements are generally subjective conditions (odor or color that produces a nuisance) that have not been explicitly defined and do not lend themselves to the pollutant-by-pollutant antidegradation analyses stated in the rules.

viii. The definition of "Designated uses" in 327 IAC 2-1.3-2(17) should better reflect uses such as drinking water, recreation, warm water aquatic life.[69] One option would be to include a cross-reference in the definition other rules that already define uses in 327 IAC 2-1-3.

ix. Language in 327IAC 2-1.3-2(19) is potentially conflicting and needs to be clarified regarding terminating permits.[70] The definition of "Draft permit" states the following: "A notice of intent to terminate a permit and a notice of intent to deny a permit are types of draft permits. A denial of a request for modification, revocation, and reissuance, or termination is

68/ Antidegradation Rules, p. 24.

69/ Antidegradation Rules, p. 24.

70/ Antidegradation Rules, p. 24.

not a draft permit. A proposed permit is not a draft permit." It is unclear whether permit terminations are draft permits.

x. The definition of "Outstanding national resource water" (ONRW) in 327 IAC 2-1.3-2 (35)(C) creates an unclear boundary of where this special designation applies.[71] It is appears that the language in the definition can unknowingly add any water to an ONRW, if it is "reasonably necessary for the protection of other waterbodies designated as ONRWs." It is also unclear as to whether this language follows Indiana statutory considerations regarding the designation of ONRWs.

xi. The definition in 327 IAC 2-1.3-2(38) for a "permit" should be clarified.[72] The proposed language defines a "permit" as a "permit" in 2-1.3-2(38)(A). IDEM should consider whether a definition used in 327 IAC 5-1.5-39 should considered.

xii. In 327 IAC 2-1.3-4(b)(1)(B)(i), IDEM should reinstate a 10% unused loading capacity (or higher) threshold for determining what a "significant lowering of water quality" is for High Quality Waters (HQWs) that are Outstanding State Resource Waters (OSRWs).[73] IDEM should use the definition of "Final acute value" in 327 IAC 2-1.3-2(23)(A) and (B)[74] to scientifically defend a 10% (or higher) unused loading capacity for all waters and lend credibility to its decisions that its process will protect water quality and not incrementally allow deterioration of water quality. This type of information will stop the belief that the credibility of a State's antidegradation implementation procedures is strained and the environment and drinking water supplies are not maintained. Given IDEM's approach, it would be logical and practical to assume that use of 10% unused loading capacity protects most likely 99.5% of species, and that use of 33% unused loading capacity (like Wisconsin) would most likely protect 98.3% of species. Arbitrarily assuming 10% of something being "significant" has no meaning unless it can be directly tied to a tangible outcome (99.5% or species are protected). IDEM should also adjust any benchmark unused loading capacity values in 327 IAC 2-1.3-4(b)(1)(A)(i)(DD) and (b)(1)(B)(i)(DD)[75] to higher levels (i.e. 50% of the

71/ Antidegradation Rules, p. 26.

72/ Antidegradation Rules, p. 26.

73/ Antidegradation Rules, p. 32.

74/ Antidegradation Rules, p. 24.

75/ Antidegradation Rules, p. 32.

unused loading capacity, which provides the estimated number of species protected to be at 97.5% or more). This analysis also includes 7Q10 low flow values, which with other inherent safety factors built into the analysis, likely severely underestimates the protection afforded.

xiii. The IWQC and IMA support 327 IAC 2-1.3-4(b)(3)(F) which exempts a new or increased loading of an approved non-BCC water treatment additives.[76] Given the exact language in 327 IAC 3-1.3-4(b)(3)(F), the IWQC and IMA would like to clarify that dischargers are still eligible to change water treatment additives as long as they are approved under the conditions of an NPDES permit (i.e. prior approval by IDEM) conditions.

xiv. The IWQC and IMA request that "exemptions" that are not a "significant lowering of water quality" not be submitted to IDEM for approval. The IWQC and IMA are fundamentally opposed to activities that are not a "significant lowering of water quality" to be approved by IDEM.

xv. The IWQC and IMA support 327 IAC 2-1.3-5(a)(2) that exemption justifications (only if required – see Comment 6 above) be submitted with a new, renewed, or modified NPDES permit.[77] The IWQC and IMA would like further clarification how exemptions that do not require a permit application submission are to be managed.

xvi. IDEM needs to ensure that decisions on the pollution prevention alternatives and technology assessment by the Commissioner be based options that are identified that are comparable in cost to baseline treatment costs.[78] In 327 IAC 2-1.3-7(c)(1), the Commissioner can deny an approval based on "cost-effective" measures being available to a discharger. While the objective of pollution prevention and alternative or enhanced treatment analyses are to ensure that the actual degradation of the high quality water is reduced to the greatest extent practicable, to be consistent with the SID, *IDEM should not just consider cost-effective measures, but should also consider treatment options that are identified that are comparable in cost to "baseline treatment costs."* It is extremely important for IDEM do this for general permits. IDEM needs to consider and summarize how industry sectors have been through technology evaluations to reduce the further assumptions regarding decisions about applicable technologies. This is very important for operations such as coal mines, which have been through many of these evaluations and are

76/ Antidegradation Rules, p. 34.

77/ Antidegradation Rules, p. 35.

78/ Antidegradation Rules, p. 38.

socially and economically important to local communities and the national infrastructure. If IDEM does not properly do this industry sector, IDEM could trigger antidegradation demonstrations for individual drainage basins under each permit. Typically mining permits have 10 - 20 basins over the life of the mine. The estimated cost to assess the engineering designs and treatment performance alternatives around an individual basin has been estimated to be $50,000. This could add costs of $500,000 to $1,000,000 per mine if individual basins and "baseline treatment costs" are not rationally managed and exempted from demonstrations.

As an example of the general permit rationale, an evaluation of 327 IAC 15-10 should find that general permits for "Ground Water Petroleum Remediation Systems" because IDEM oversaw the applicable technology basis for the limitations in the rule. The general permit for these types of discharges imposes monitoring requirements and numeric effluent limitations designed to protect water quality. In addition, these discharges only occur during the period of time necessary to complete the remediation process, and these projects ensure that public health and the environment is not threatened, and clean up ground water for future safe use. For example, this permit requires benzene of 5 ug/L. This limit is based on technology for meeting a at the tap drinking water standard and is almost 20 times lower than the secondary continuous concentration of 98 ug/L calculated by IDEM that protects aquatic life for chronic effects.

xvii. <u>IDEM needs to ensure that decisions on the pollution prevention alternatives and technology assessment by the Commissioner be based on options that are identified that are comparable in cost to baseline treatment costs.</u> In 327 IAC 2-1.3-7(c)(1)[79], the Commissioner can deny an approval based on "cost-effective" measures being available to a discharger. While we all understand that the objective of pollution prevention and alternative or enhanced treatment analyses are to ensure that the actual degradation of the high quality water is reduced to the greatest extent practicable. To be consistent with the SID for the Great Lakes Initiative, *IDEM should not just consider cost-effective measures, but should also consider treatment options that are identified that are comparable in cost to "baseline treatment costs."* For example, an evaluation of a treatment alternative requirement for limits for coal mining discharges to be met from the time the discharge caused by a precipitation event begins and will continuing from 48 hours to 72 hours after a precipitation event has ceased will significantly increase capital and operating costs at coal mining facilities. In this situation, 51 or more coal mining NPDES permits that could be affected by this decision.

79/ Antidegradation Rules, p. 38.

Current federally required BAT technology, the "baseline treatment cost," for coal mining discharges allows operations to meet limits from the time the discharge caused by a precipitation event begins and will continue to apply until 48 hours after the precipitation event. In order meet the higher level of control, all of the discharges in these permits (approximately 400) would have to upgrade to a level of treatment that U.S. EPA found to be not economically achievable on a national basis. Based on the "Development Document for Effluent Limitations and Standards for the Coal Mining Point Source Category" (EPA, EPA 440/1-82/057, October 1982), all of these discharges would have to upgrade their technology to incorporate neutralization, aeration, and settling to include flocculant addition technology. U.S. EPA indicated in the development document that the installation of flocculant technology for each discharge would cost between $30,000 and $40,000 per discharge in capital costs. Additional operating costs were estimated to be from $0.42/1000 gallons to $0.41/1000 gallons. *Given these assumptions, this new level of treatment new requirement would require a total of capital costs ranging from $12,000,000 to $16,000,000 and would require hundreds of thousands more dollars in annual operating costs.* IDEM should further consider and summarize how many other industry sectors have been through technology evaluations to reduce the further assumptions regarding decisions about technology.

13. IWQC and IMA Support the Case Examples of IEA.

The IWQC and IMA support the case examples submitted by IEA and other IMA members in their comments to the Antidegradation Rules.

14. IWQC and IMA Will Submit Additional Information on Fiscal Impact.

The IWQC and IMA will submit additional information to IDEM, OMB, and/or others, as may be appropriate, to support the fiscal impact analysis as more information becomes available. The IWQC and IMA believe that the Antidegradation Rules will have significant fiscal impact on regulated entities.

III. CONCLUSION

The IWQC and IMA appreciate the opportunity to provide these comments. As demonstrated above, the Antidegradation Rules should be revised to comply with the rulemaking requirements under I.C. § 4-22-2-19.5(a) of minimizing expenses to regulated entities required to comply with the rules, achieving the regulatory goal in the least restrictive manner, avoiding duplication of existing standards in other state and federal laws, ease of comprehension, and allowing for practical enforcement. Incorporating the IWQC and IMA's comments and suggestions set forth above will allow the Antidegradation Rules to meet these requirements.

Again, if you have any questions or comments, please contact me at wwagner@taftlaw.com or at (317) 713-3614.

Sincerely,

/ s / William C. Wagner

William C. Wagner

WCW/aak
1182651

January 14, 2010 OFFICIAL COMMENT

MaryAnn Stevens, Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Mgmt.
100 North Senate Ave.
MC 65-41
Indianapolis Ind. 46204-2251Legal Counsel

Re: LSA Document #08-764 (Antidegradation)

Dear Ms. Stevens:

Clean water is so important to sustaining a livable planet! The above rule falls short of protecting Lake Michigan, it contradicts the intent of federal antidegradation laws. This proposed rule must be strengthened to protect water quality as the Clean Water Act intended.

I have such a hard time understanding why companies who pollute put profit over clean water and clean air. Do not the CEOs running these companies realize that they are harming themselves as well as the rest of us?

Sincerely,

Exemption 6

January 14, 2010

Mary Ann Stevens, Hazel Development Branch
Office of Legal Counsel
Indiana Department of Environmental Mgmt
100 North Senate Ave
MC 65-41
Indianapolis Ind. 46204-2251 Legal Counsel

Re: LSA Document #08-764 antidegradation

Dear Ms. Stevens,

Clean water is so important to sustaining a livable planet. The above rule is the short of proceeding into Michigan. It contradicts the intent of federal antidegradation laws. This proposed rule must be suspended in order to [illegible] Clean Water Act [illegible]

[illegible]

Sincerely,

Suzanne Jonson

OFFICIAL COMMENT

To: Office of Legal Counsel
Indiana Government Center North
100 N. Senate Ave, Room N1301
Indianapolis, Ind. 46204-2251

Lake Michigan deserves the highest level of protection from new or increased pollution. Indiana's proposed rule must be strengthened to protect water quality, as the Clean Water Act intended.

Our planet is in danger of dying from toxic pollution. Please do not allow the problem to worsen.

Sincerely,

Exemption 6

Exemption 6

OFFICIAL COMMENT

[redacted]

RECEIVED
STATE OF INDIANA
JAN 22 2010
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

Indiana Department of Environmental Management
100 N. Senate Avenue
MC 65-41
Indianapolis, Indiana 46204-2251

Re: Propose Indiana Rules Controlling Lake Michigan Pollution

Attention: Mary Ann Stevens, Rules Division Director

Dear Sirs and Madams:

I am advised that federally mandated rules for controlling Indiana regarding water pollution of Lake Michigan are being considered at Indiana Department of Environment Management. I urge the body which will approve the rules to include strong and specific prohibition against all input of phosphorous, sediment or other key pollutants into Lake Michigan. Exemptions should be disallowed.

I am sure that I speak on behalf of many environmental organizations and tens of thousand of people interested in preserving the quality of water in the Great Lakes water basin.

I would appreciate hearing from you regarding the results of your conference.

Sincerely yours,

[redacted]

OFFICIAL COMMENT Exemption 6 [redacted]

January 15, 2010

Mary Ann Stevens
Rules Development Branch, Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave. MC 65-41
Indianapolis, Indiana 46204-2251

RE: LSA Document #08-764 (Antidegradation)

Dear Ms. Stevens:

I am submitting this public comment because I strongly believe that Lake Michigan deserves the highest level of protection from new or increased pollution. Indiana's proposed antidegradation rule must be strengthened to protect water quality as the Clean Water Act intended. Indiana's federally mandated water quality rule as currently proposed, still fails to protect Lake Michigan. Despite having been introduced two years ago and the subject of four public meetings, the draft rule contradicts the intent of federal antidegradation policy which is meant to protect water quality while working to comply with existing standards.

Indiana's rule is inadequate because it would trigger an antidegradation review only when a new or increased discharge would increase the level of a pollutant to the degree it poses a potentially "detrimental effect" on lake uses.

The rule includes several unjustified exemptions, and excludes phosphorus, sediment and other key pollutants for which no thresholds exist from protective provisions, even though these pollutants are known to harm water quality.

The rule exempts so-called "de minimis" – or low-level -- new pollution discharges from a federal requirements that the pollution be a necessary byproduct of important local economic or social benefit.

Using the methods proposed in the draft rule, state regulators could permit multiple new low-level discharges of a pollutant that together have a significant cumulative impact on Lake Michigan's water quality, without any evidence that the additional pollution is justified.

Please work to strengthen the federally mandated rule, which sets a limit for how much new pollution can be discharged to Lake Michigan and other waterways in the state.

Sincerely,

Exemption 6 [redacted]

OFFICIAL COMMENT

January 20, 2010

RECEIVED
STATE OF INDIANA
JAN 25 2010
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens, Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave.
MC 65-41
Indianapolis, Indiana 46204-2251

Re: Lake Michigan Protection from New or Increased Pollution

Dear Ms. Stevens,

I am writing today to ask that you give Lake Michigan the highest level of protection from new or increased pollution. Indiana's proposed rule must be strengthened to protect water quality as the Clean Water Act intended. Indiana's rule, rather than protecting water quality while working to comply with existing standards, would trigger an antidegradation review only when a new or increased discharge would increase the level of a pollutant to the degree it poses a potentially "detrimental effect" on lake uses.

I have several concerns about the rule, in its' current form, which include:

- The rule includes several unjustified exemptions, and excludes phosphorus, sediment and other key pollutants for which no thresholds exist from protective provisions -- even though these pollutants are known to harm water quality.

- The rule exempts so-called "de minimis" – or low-level -- new pollution discharges from a federal requirements that the pollution is a necessary byproduct of important local economic or social benefit.

The results of these concerns would be in using the methods proposed in the draft rule, state regulators could permit multiple new low-level discharges of a pollutant that together have a significant cumulative impact on Lake Michigan's water quality, without any evidence that the additional pollution is justified.

The Alliance or the Great Lakes (a great organization by the way) is working with a coalition of groups in Indiana to strengthen the federally mandated rule, which sets a limit for how much new pollution can be discharged to Lake Michigan and other waterways in the state.

Please strengthen Indiana's proposed rule now!

Thank you,

Exemption 6

Exemption 6

OFFICIAL COMMENT

RECEIVED
STATE OF INDIANA
JAN 22 2010
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

Indiana's Water Rules Still Don't Protect Lake Michigan

I'm a big fan of the **Alliance For the Great Lakes**, and I support them whenever they need help with local publicity. I received an email notice about an **upcoming deadline** regarding public participation for a water quality ruling decision. Since this affects Lake Michigan – and all of us who swim in it regularly – I've copied the notice in it's entirety below:

I object to Indiana rules allowing more Lake Michigan pollution!

Other concerns:

* The rule includes several unjustified exemptions, and excludes phosphorus, sediment and other key pollutants for which no thresholds exist from protective provisions — even though these pollutants are known to harm water quality.

* The rule exempts so-called "de minimis" – or low-level — new pollution discharges from a federal requirements that the pollution is a necessary byproduct of important local economic or social benefit.

The result: Using the methods proposed in the draft rule, state regulators could permit multiple new low-level discharges of a pollutant that together have a significant cumulative impact on Lake Michigan's water quality, without any evidence that the additional pollution is justified.

The Alliance is working with a coalition of groups in Indiana to strengthen the federally mandated rule, which sets a limit for how much new pollution can be discharged to Lake Michigan and other waterways in the state.

Lake Michigan deserves the highest level of protection from new or increased pollution. Indiana's proposed rule must be strengthened to protect water quality as the Clean Water Act intended. All comments must be postmarked, faxed or hand delivered to the Indiana Department of Environmental Management by Jan. 30.

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens, Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave.
MC 65-41
Indianapolis, Indiana 46204-2251.
Fax comments to: (317) 233-5517.

Exemption 6

[redacted]

OFFICIAL COMMENT

January 17, 2010

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens, Rules Development Branch

I ask Indiana to improve the proposed antidegradation rule to fully protect Lake Michigan – it deserves the highest level of protection from new or increased pollution. Indiana's proposed rule must be strengthened to protect water quality as the Clean Water Act intended.

Sincerely,

Exemption 6

January 17, 2010

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens, Rules Development Branch

I ask Indiana to improve the proposed antidegradation rule to fully protect Lake Michigan – it deserves the highest level of protection from new or increased pollution. Indiana's proposed rule must be strengthened to protect water quality as the Clean Water Act intended.

Sincerely,

A NiSource Company

January 29, 2010

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave.
MC 65-41
Indianapolis, Indiana 46204-2251

Re: NIPSCO Comments to IDEM's Second Notice of Comment to the Antidegradation Draft Rule

Dear Ms. Stevens:

The Northern Indiana Public Service Company ("NIPSCO") thanks you for the opportunity to comment on the above referenced Second Notice of the proposed Antidergradation Rule (the "Proposed Rule"). We believe the below comments provide constructive ideas concerning the Proposed Rule and will help build upon the discussions between IDEM and the affected stakeholders.

NIPSCO is a gas and electric utility serving the northern third of Indiana. NIPSCO has four active electric generating stations with two sited on Lake Michigan, one on the Kankakee River, and one located off of the Wabash River in near Terre Haute. We have been pleased to work with the Indiana Energy Association ("IEA"), the Indiana Manufacturers Association ("IMA"), and the Northwest Indiana Forum in assessing the Proposed Rule and concur in the comments each of those entities has, or will soon, submit concerning the Proposed Rule. Additionally, NIPSCO respectfully submits the below comments concerning issues especially germane to our operations.

1. Thermal 316 (a) Variance Exemptions

327 IAC 2-1.3-3: Antidegradation standards.

Parties who apply for a CWA § 316(a) thermal variance or who renew an existing CWA § 316(a) thermal variance should not be required to undergo an antidegradation demonstration as contemplated by the Proposed Rule.

The Proposed Rule should be revised to reflect that an antidegradation demonstration is not required for agency-issued 316(a) thermal variances. In response to a somewhat similar

public comment offered during the 2008 comment period associated with the Proposed Rule, IDEM stated that a "316(a) variance does not include a review of alternatives that would eliminate or reduce the need for the effluent limits that exceed the WQBELs for temperature." All 316(a) variance applications (new and renewal), however, are required to include a review of the technologies capable of treating pollutants of concern and the social and economic costs of installing and operating each technology. This review is very similar to the technology review and demonstration of social or economic importance that is required for antidegradation demonstrations. If necessary, IDEM should specify any significant differences in renew / demonstration requirements between the 316 (a) variance and anti-degradation rules.

In fact, the United States Environmental Protection Agency recommends that States use the same process for reviewing social and economic impacts for variances and antidegradation review (EPA 823/B-95-002 (March 1, 1995)). Thus, if IDEM has granted a new or renewed variance to a NIPSCO facility, it makes sense that we should not also need to complete an antidegradation demonstration. A 316(a) variance demonstration effectively satisfies antidegradation requirements in all material respects. Consequently, no additional review beyond the materials used to obtain a 316(a) variance should be required. In other words, the alternatives review of the 316(a) process and antidegradation demonstration are substantially similar and effectively redundant. One who expends significant resources to proceed through the vigorous 316(a) process should not be made to exhaust even more resources for no material benefit.

2. Determination of Deminimis Exemption for Increased Loadings

We are concerned that the Proposed Rule lacks the necessary clarity with respect to the procedures which will determine deminimis exemptions for increased loadings. In particular, clarity is needed with respect to the:

- Application of more restrictive considerations for OSRW (i.e., 1% of existing unused loading capacity for increase and 97.5% of baseline unused loading capacity for cap vs. 10% increase and 90% cap for non-ORSW))
- Calculation of total loading capacity (TLC) for discharge to lake with no alternate mixing zone
- Definition of the bright line for evaluation of the antidegradation deminimis exemption. The bright line should be established as applicable permit limits as opposed to existing effluent concentration/mass prior to a deliberate action

These three issues have been detailed in comments submitted by IMA/IEA as well as the Northwest Indiana Forum. NIPSCO concurs with these comments and urges revision to the Proposed Rule to accommodate the need for changes in facility operations such as the installation of a Wet Air Pollution (WAP) control device, i.e., Flue Gas Desulfurization (FGD) air pollution control units.

Further, the Proposed Rule needs clarity with respect to the procedures to be used to calculate the TLC for both rivers and lakes. The question for deminimis evaluation is: what happens when an alternate mixing zone has not been implemented in an OSWR lake?

Typically the TLC has been determined as the product of a chronic criterion and 7Q10 river flow (using appropriate conversion factors). This approach is suitable for streams with appreciable flow, that is, a 7Q10 greater than zero. However, for a lake discharger, there is no "stream design flow" and the TLC may be determined from the chronic criterion times the effluent flow, thereby effectively negating the deminimis exemption. Additional total loading capacity for lake would only exist if an alternate mixing zone is granted.

The above three scenarios illustrate the need to clarify the Proposed Rule's procedures for calculating total loading capacity, defining an appropriate bright line, and consistently applying the % increase and % cumulative cap to all HQW (OSRW or non-OSRW).

NIPSCO greatly appreciates the opportunity to provide these comments to IDEM and we hope that they will be helpful in the drafting of this rule. Please contact Dan Plath, EH&S Coordinator at (219) 647-5268 or dkplath@nisource.com if you have any questions or concerns.

Thank You

Sincerely,

Kelly Carmichael

Director of Permitting & Regulatory Services

NiSource Corporate Services

NORTHWEST INDIANA FORUM
6100 Southport • Portage, IN 46368 • 219.763.6303 Phone • 219.763.2653 Fax

January 29, 2010

MaryAnn Stevens
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indiana 4604-2251

RE: LSA Document #08-764 2nd Notice of Comment Period
Development of New Rules and Amendments to Rule Concerning
Antidegradation Standards and Implementation Procedures

Dear Ms. Stevens:

Thank you for the opportunity to comment on the *Development of the New Rules and Amendments to Rule Concerning Antidegradation Standards and Implementation Procedures* during the 2nd notice period. The Northwest Indiana Forum is a membership based, not for profit regional economic development organization. Our membership represents industrial and commercial businesses, financial entities, universities and municipalities within Lake, Porter, LaPorte and Starke counties – a diverse group. In total, our membership represents $40 billion in commerce annually on behalf of the State of Indiana. Important to note, our members embrace environmental stewardship and sustainability as core business values in corporate vision statements.

The Northwest Indiana Forum endorses activities and rulemaking procedures that are supportive of protecting the environmental, economic and social justice components of the quality of life for our residents. In order to accomplish this, the Indiana Department of Environmental Management (IDEM) must position their regulatory processes to ensure permitting certainty. New, expanding and existing permitted facilities need to have a clear direction on what steps are necessary for them to comply with the rules and regulations of Indiana and the guarantee that technically and legally sound permits will be issued in a timely fashion. Without permitting certainty, plant expansions and new project opportunities may be reduced.

In our role as an economic development organization, we strive to assist in the retention and increase of sustainable quality jobs. Providing Indiana's college graduates a broad spectrum of job opportunities and a consistently evident approach to continually improve the quality of life including a respected and protected environment are critical to the successful future of Northwest Indiana.

The following comments of support and concern have been received from the Forum membership for transmittal to IDEM:

- Antidegradation rules must be finalized in a manner that provides clear guidance on when and what is required
- Public outreach and education is critical to permit issuance. To provide the citizens of Indiana the assurance of quality outreach and education, public venues whereby antidegradation is discussed should be managed in a consistent manner by the IDEM.
- Antidegradation Trigger mechanisms should be developed and implemented to address situations when a permit application is requesting approval for a higher limit of a regulated parameter within an existing permit or a limit for a parameter new to the permit. Clarification within the rules will provide direction to permit applicants as new and/or expansion concepts are being developed.
- In instances where a permit applicant has performed a Variance Request, 316(a) variances as an example, the rules should reflect that the Variance Request application satisfies the antidegradation demonstration requirements. To require a duplicate submittal is an economic burden.
- In today's competitive global business climate, Indiana must be sensitive to the De minimus provisions enacted by neighboring states. As such, the proposed, 1% (Tier 1 criteria), 2% (Tier II Values) and 2.5% (cumulative cap) are more stringent than the Great Lakes Water Quality Guidance and neighboring states standards. IDEM has not sufficiently presented data or information to show that the current de minimus/cumulative cap provisions of 10% are unsatisfactory for managing antidegradation standard requirements with respect to minor increases to permit limits. Where the effect of a new or increased discharge on the environment is insignificant (*i.e.*, is less than the de minimus threshold), there is no benefit to requiring the commitment of time and money by the public, the regulated community, and government agencies. Requiring extensive review of insignificant or inconsequential discharges that clearly will remain below the water quality standards hinders industrial growth and expansion without offering any meaningful added protection to human health or the environment.
- Water quality improvement projects language needs clarification. Whereby it is appreciated that the proposed rule provides for a maximum dollar figure as a component of the guidance, it is necessary to provide further clarification to assist permittees as to the direction on how the IDEM will make a determination regarding the final cost of the required project.
- Pollutants of Concern as defined and applied to pollutants reasonably expected to be present in a discharge based upon technical knowledge is supported. However, concern arises when the definition is expanded to include pollutants in receiving water beyond the control of the regulated facility.

Thank you for the opportunity to provide you with our support and concerns related to the proposed rule. The Northwest Indiana Forum members have appreciated the IDEM public outreach and educational efforts to date as all parties have worked diligently to finalize this issue.

Sincerely,

Kay L. Nelson

Kay L. Nelson
Director, Environmental Affairs
Northwest Indiana Forum

Copies: Mark T. Maassel, President/CEO Northwest Indiana Forum
James Flannery, Chair, Northwest Indiana Forum Environmental Committee

January 14, 2010

ATTN: LSA Document #08-764 (Antidegradation)

MaryAnn Stevens, Rules Development Branch

Office of Legal Counsel

Indiana Department of Environmental Management

100 North Senate Ave.

MC 65-41

Indianapolis, Indiana 46204-2251.

OFFICIAL COMMENT

As a Chicago resident, I am very concerned with the water quality of Lake Michigan. For our city to be healthy, the lake itself must be healthy. I fear that we have reached a tipping point – should water quality get any worse, we will be unable to stop the lake's demise. Lake Michigan is of *vital* importance to our ecosystems, both near and far. We must act now, and act soundly, in order to prevent any further pollution from entering the lake.

Current proposed legislation has the following problems:

- Indiana's rule would trigger an antidegradation review only when a new or increased discharge would increase the level of a pollutant to the degree it poses a potentially "detrimental effect" on lake uses.
- The rule includes several unjustified exemptions, and excludes phosphorus, sediment and other key pollutants for which no thresholds exist from protective provisions -- even though these pollutants are known to harm water quality.
- The rule exempts so-called "de minimis" – or low-level – new pollution discharges from a federal requirements that the pollution is a necessary byproduct of important local economic or social benefit.

The result: Using the methods proposed in the draft rule, state regulators could permit multiple new low-level discharges of a pollutant that together have a significant cumulative impact on Lake Michigan's water quality, without any evidence that the additional pollution is justified.

Lake Michigan deserves the highest level of protection from new or increased pollution. Indiana's proposed rule must be strengthened to protect water quality as the Clean Water Act intended.

Thank you,

Exemption 6

Exemption 6

January 17, 2010

RECEIVED
STATE OF INDIANA
JAN 22 2010
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR

LSA Document #08-764
MaryAnn Stevens, Rules Development Branch
Office of Legal Counsel
Indiana Deptartment Of Environmental Management
100 N. Senate Avenue
MC-65-41
Indianapolis, Indiana 46204-2251

RE: Proposed Water Quality Rule for Indiana

OFFICIAL COMMENT

Dear Ms. Stevens:

I am writing to express my concern regarding the proposed anti-degradation rule to fully protect Lake Michigan. The draft rule appears to contradict the intent of the laws meant to protect water quality while working to comply with existing standards.

I urge you to strengthen rather than diminish the proposed rule, which exempts new pollutants that can be discharged into Lake Michigan. The effect on the health of the population is of great concern. We must protect water quality as the Clean Water Act intended.

I appreciate your consideration of my comments.

Sincerely,

Exemption 6

[redacted]

Exemption 6

[redacted]

TO: IN DEPT ENVIRON. MGMT

FROM: LEAGUE OF WOMEN VOTERS OF MILWAUKEE COUNTY, WI

RE: WATER QUALITY RULES

DATE: JAN 28, 2010

OF PAGES: 2 INCLUDING THIS COVER

TO: IN

FROM: LEAGUE OF WOMEN

RE: WATER

DATE: JAN 28, 2010

OF PAGES:

LEAGUE OF WOMEN VOTERS®
OF MILWAUKEE COUNTY

OFFICIAL COMMENT

TO: Indiana Department of Environmental Management, fax 317.233.5517
FROM: League of Women Voters of Milwaukee County, Wisconsin
RE: Federally mandated water quality rule proposed for Indiana
DATE: January 28, 2010

Lake Michigan is THE source of drinking water for millions of people, a place of recreation, including fishing, and source of joy and inspiration for those who live near its shores or visit this incomparable wonder. We cannot continue to permit discharges of sediments and pollutants of known negative health and environmental effects into the Lake. Hence the League of Women Voters of Milwaukee County urges retention of **anti-degradation rules that disallow** the following:

- new pollutants, including nano-particles
- increased phosphorus and sediment loads of any amount – zero additional loadings
- increased cumulative pollutant loads

The point of anti-degradation and restoration is exactly that –

- no further harm/degradation
- remediate the harm done to date to improve the quality of the resource

Louise Petering, President

1845 N. Farwell Ave., Suite 102, Milwaukee, WI 53202 ▪ 414-273-VOTE (8683)
email: info@lwvmilwaukee.org ▪ web: www.lwvmilwaukee.org

OFFICIAL COMMENT

Exemption 6

[redacted]

January 18, 2010

I am voicing my opinion as an Indiana resident, consumer of water from Lake Michigan and frequent visitor of the Indiana Dunes on the proposed federally mandated anti-degradation ruling on water quality in Lake Michigan. I am pleading with you to reject this watered-down mandate and work to improve the proposed anti-degradation rule to fully protect Lake Michigan. We don't need more chemicals and sediment. We need to set higher limits on how much new pollution and chemicals can be discharged into Lake Michigan. The Clean Water Act was enacted to protect our water back in 1972. Since then, we have learned so much more about the negative impact water pollution has on humans, animals and natural beauty. Please protect this beautiful gift of fresh water for our children and future generations.

Sincerely,

Exemption 6

[redacted]

RECEIVED
STATE OF INDIANA
FEB 2 2010
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF ~~AIR QUALITY~~
Water Quality
MAS

Exemption 6

[redacted]

Exemption 6

OFFICIAL COMMENT

RECEIVED
STATE OF INDIANA
FEB 2 2010
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

The exemption of "de minimis" new pollution may allow state regulators to permit multiple new low-level discharges of a pollutant that together could have a significant impact on Lake Michigan/Huron water quality without any evidence that the additional pollution is justified. Also the new rule should trigger anti-degradation review to protect water quality while it still exceeds standards, not just when an increased discharge would increase the level of a pollutant to the degree it poses a potentially "detrimental effect" on designated uses.

Exemption 6

[redacted]

OFFICE OF ~~AIR QUALITY~~ Water Quality

MAS

30 JAN 2010 PM 21

U.S.A. FIRST-CLASS FOREVER

LSA Document #08-764 Antidegradation

Mary Ann Stevens, Rules Development Branch

Office of Legal Counsel

IDEM

100 North Senate Ave

MC 65-41

Indianapolis, IN 46204-2251

46204+2210

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens, Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave.
MC 65-41
Indianapolis, Indiana 46204-2251

Fax: (317) 233-5517

Indiana please improve the proposed antidegradation rule to fully protect Lake Michigan

Comment on a federally mandated water quality rule proposed for Indiana, which still falls short of protecting Lake Michigan. Introduced in 2008 and since vetted at four public meetings, the draft rule contradicts the intent of federal antidegradation laws, which are meant to protect water quality while working to comply with existing standards.

Instead, Indiana's rule would trigger an antidegradation review only when a new or increased discharge would increase the level of a pollutant to the degree it poses a potentially "detrimental effect" on lake uses.

Other concerns:

* The rule includes several unjustified exemptions, and excludes phosphorus, sediment and other key pollutants for which no thresholds exist from protective provisions, even though these pollutants are known to harm water quality.

* The rule exempts so-called "de minimis" – or low-level -- new pollution discharges from a federal requirements that the pollution is a necessary byproduct of important local economic or social benefit.

The result: Using the methods proposed in the draft rule, state regulators could permit multiple new low-level discharges of a pollutant that together have a significant cumulative impact on Lake Michigan's water quality, without any evidence that the additional pollution is justified.

The Alliance is working with a coalition of groups in Indiana to strengthen the federally mandated rule, which sets a limit for how much new pollution can be discharged to Lake Michigan and other waterways in the state.

Lake Michigan deserves the highest level of protection from new or increased pollution. Indiana's proposed rule must be strengthened to protect water quality as the Clean Water Act intended.

Sincerely,

Exemption 6

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

WQ-16J

JAN 29 2010

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave., MC65-41
Indianapolis, Indiana 46204-2251

Dear Ms. Stevens:

The U.S. Environmental Protection Agency has reviewed Indiana's draft antidegradation rules published on December 16, 2009 in the Indiana Register for second notice of public comment. My staff have participated in the Indiana stakeholder meetings throughout 2008 and 2009, submitted informal comments via email, and held conference calls with Indiana Department of Environmental Management (IDEM) staff to discuss our concerns via telephone. We are pleased to see that the following items were included in the December 16 version:

- Tier 1 antidegradation review to protect existing uses and prohibit a lowering of water quality where impairment exists.
- An attempt to address how antidegradation should be handled in general permits.
- Expanded social and economic section including more options for determining social and economic importance.
- An attempt to eliminate two separate antidegradation rules, one for the Great Lakes basin and one for other waters, and compile the requirements under one rule.

However, based on our review, we believe several components of the draft rules appear to be inconsistent with applicable Federal requirements and could result in EPA's disapproval if they are not revised or clarification is not provided to explain how the language is consistent with Federal requirements. We have also provided less significant comments on aspects of the rules, which if addressed, would improve the clarity of the rules. We look forward to working closely

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with IDEM to develop rules that are workable and consistent with the Clean Water Act and Federal requirements. My staff and I will be happy to answer any questions IDEM may have about these comments. Please feel free to contact me at (312) 886-6758, or Kathleen Mayo of my staff at (312) 353-5592.

Sincerely,

Linda Holst

Linda Holst, Chief
Water Quality Branch

Enclosure

EPA Comments for Indiana Antidegradation Rules, Second Notice

I. ELEMENTS OF INDIAN'S PROPOSED RULES THAT APPEAR TO BE INCONSTENT WITH THE APPLICABLE FEDERAL REQUIREMENTS

1. Definition of "pollutant of concern" –327 IAC 2-1.3-2, #43

"Pollutant of concern" is defined as a pollutant that is reasonably expected to be present in a new or increased discharge, and in the receiving water in sufficient amounts to have a potentially detrimental effect on the designated or existing uses of the receiving water. In previous responses to comments, IDEM indicated that it would consider a pollutant to be present in sufficient amounts to have a detrimental effect on designated uses if the pollutant were present in concentrations at or near those triggering permit limits. This is inconsistent with the Federal requirement to maintain and protect high quality waters and, given IDEM's previous statements, to be inconsistent with EPA's guidance on significance or *de minimis.*

Recommended changes to Indiana's draft rules:
The term "pollutant of concern" should be struck from the draft rules. The draft rules already include other provisions that allow for distinguishing between significant and insignificant lowering of water quality for purposes of determining the extent of review under antidegradation.

2. De minimis threshold for new or increased loadings of pollutants without numeric water quality criteria or data sufficient to calculate a numeric water quality criterion or value - 327 IAC 2-1.3-4(b)(1)(A)(i)(BB) and (CC)

While Indiana may distinguish between significant and insignificant lowering of water quality and not require antidegradation review for actions that result in an insignificant (i.e., de minimis) lowering of water quality, the determination of either type of threshold must be based on the extent of expected change in ambient water quality. On page 32, a de minimis threshold is proposed that is less than or equal to 20% of existing loading capacity for pollutants without published criteria or data sufficient to calculate a numeric criterion. IDEM justifies the de minimis percentage by stating that water quality values calculated using partial toxicity data may be overly stringent because of uncertainty in the data calculations to develop the numeric criterion. This is inconsistent with Federal guidance on *de minimis* thresholds which requires that the significance of a new or increased discharge depends on the effect of the new or increased discharge on ambient water quality, not on the confidence a State has in the criteria derivation process. The criterion is only relevant in setting the absolute maximum allowable amount of pollutant that can be tolerated without negatively affecting the designated use of the water body.

Recommended changes to Indiana's draft rules:
For the high quality waters (HQW) that are not OSRWs or ONRWs, Indiana should delete 327 IAC 2-1.3-4 (b)(1)((A)(i)(BB) and (CC) and apply the same 10% de minimis exemption referenced at 327 IAC 2-1.3-4(b)(1)((A)(i)(AA) to all new or increased discharges.

3. Indiana's proposed cumulative cap on de minimis lowering of water quality of 25% of the unused assimilative capacity is too high. - 327 IAC 2-1.3-4(b)(1)(A)(i)(DD)

Indiana's draft rules include a proposed cumulative cap on the de minimis lowering of water quality of 25% of the unused loading capacity. IDEM based the 25% cap on the threshold used under the Clean Air Act to identify Maximum Allowable Increases. Federal courts reviewing previous EPA approvals of State antidegradation provisions have found that de minimis provisions are only acceptable where both the individual actions are insignificant (i.e., *de minimis*) and the cumulative impacts of all the individual insignificant actions on a water body, taken together, are also insignificant. *Kentucky Waterways Alliance, et al. v. EPA, et al.*, 540 F.3d 466 (6th Cir. 2008). In EPA's opinion, loss of up to a quarter of the remaining assimilative capacity of a surface water without antidegradation review is not insignificant.

Recommended changes to Indiana's draft rules:
For the HQW that are not OSRW or ONRW, Indiana should limit both individual and cumulative insignificant lowering of water quality to no more than 10% of the baseline assimilative capacity.

4. Indiana's rules exempt certain actions that impact water quality from parts of the antidegradation requirement to demonstrate that a new or increased discharge is necessary to accommodate important social and economic development - 327 IAC 2-1.3-4(b)(3)(B), (E) & (F) & 327 IAC 2-1.3-4(b)(4)

The Federal regulations allow new or increased discharges to lower water quality in high quality waters only after the lowering of water quality is demonstrated to be necessary to accommodate important social and economic development in the area in which the waters are located. Indiana's draft rules contain exemptions from the demonstration requirements for a number of types of activities that may impact water quality. While the "exemption demonstration" in Indiana's rules might address the Federal requirement that any lowering of water quality be technologically necessary (no less degrading alternatives are available), it does not address the social and economic benefits component. To the extent that Indiana is finding, by rule, that the exempted actions are always socially and economically beneficial, Indiana must provide some factual information in the record supporting that assertion. Without such data and analysis in the record, the demonstration is incomplete and therefore inconsistent with the Federal regulations.

Also, 327 IAC 2-1.3-4(b)(3)(B) and 327 IAC 2-1.3-4(b)(4)(A) contemplate offsetting new or increased discharges with other actions within the same 10 digit HUC. Offsetting provisions may be an acceptable basis for determining that antidegradation review is not triggered if it is

clear that the offset results in no change in water quality at the point where the new or increased discharge will occur. It is not clear that the spatial relationship between such actions will be such as to ensure that this requirement will be met in all circumstances that would qualify for this exemption.

Recommended changes to Indiana's rules:
IDEM should either delete the exemption provisions identified above and address these activities through the antidegradation review process on a case-by-case basis, or provide the data and analysis necessary to satisfy the antidegradation demonstration requirement for all the activities that might fall under one of these exemptions.

II. ELEMENTS OF INDIAN'S PROPOSED RULES THAT REQUIRE ADDITIONAL SUPPORT TO DEMONSTRATE HOW THEY ARE CONSTENT WITH THE APPLICABLE FEDERAL REQUIREMENTS

1. Page 36 at 327 IAC 2-1.3-6(b)(13) proposes an analysis of pollution prevention to mitigate degradation.

This section of the proposed rules outlines fifteen components to include within an antidegradation demonstration application. The pollution prevention analysis is #13.

Recommended changes to Indiana's rules:
EPA suggests moving the pollution prevention analysis near the beginning of the antidegradation demonstration. EPA's Supplementary Information Document for Great Lakes basin regulations at 40 CFR 132 recommends a hierarchy of operations, or sequential analysis, focusing first on whether a significant lowering of water quality could be reduced or prevented through the application of prudent and feasible pollution prevention alternatives.

2. Definition for Endangered and Threatened Species

With regards to the definition of threatened and endangered species in the rule, we recommend that the scope of the definition be expanded to better encompass the level of protection called for under the Endangered Species Act (ESA), specifically with regard to the protection of critical habitat. In accordance with the ESA, actions must not "result in the destruction or adverse modification of designated critical habitat".

Recommended changes to Indiana's rules:
The definition of threatened and endangered species could be modified as follows:
"Threatened or endangered species" means the following:
(A) Species and designated critical habitat listed under Section 4 of the ESA*.
(B) Species listed as state threatened or endangered by the Indiana department of natural resources under IC 14-22-34.
(C) Species designated as state threatened or endangered species in the January 22, 1997, database for endangered, threatened, rare, and special concern species maintained by the Indiana natural heritage data center, division of nature preserves, department of natural resources**."

Alternatively, the rule could be revised to refer specifically to threatened and endangered species and any designated critical habitat as information that must be provided by applicants and considered by the director. In this case, EPA recommends that the provision at 327 IAC 2-1.3-7 (c)(3) also be revised to say: " The action would jeopardize state listed endangered or federally listed threatened and endangered species or result in the destruction or adverse modification of designated critical habitat."

3. ESA Footnotes:

With regards to the footnotes to the definition of threatened and endangered species, we suggest that IDEM consider a way to update the state database of species such that new versions of the database, if available, would be used for the purposes of completing accurate and thorough assessments of the potential effects of antidegradation applications on listed species.

4. Additional Definitions:

The draft rules lack definitions for the following terms and are integral to understanding how the rules work:

- Definition of "application"
- Best Available Demonstrated Control Technology (BADCT)
- Definition of "Recommencing Discharge"
- Absence of a definition for "New Discharger"

5. 327 IAC 2-1.3-1(c) Antidegradation Review of Activities Covered by General Permits..

The wording of this provision is unclear. 327 IAC 2-1.3-1(c)(1) states:

> "The department shall complete an antidegradation review of the rules of the board that authorize the NPDES permit."

The rule is unclear regarding the board rules to which the antidegradation review shall be applied. The term rules in paragraph (1) implies that it is intended to apply to 327 IAC 15, Rule 1 General Provisions and Rule 2 Basic NPDES General Permit Rule Requirements, Rule 3 NOI Letter Requirements, Rule 4 Standard Conditions for NPDES General Permit Rules rather than a specific permit by rule (e.g. Rule 5. Storm Water Run-Off Associated with Construction Activity). Paragraph (1) should be revised to ensure that an antidegradation review is conducted on each general permit issued by the state.

In addition, paragraph (3) states:

> "After an antidegradation review of a rule is conducted, activities covered by an NPDES general permit authorized by that rule are not required to undergo an antidegradation review."

It is not clear how a permanent blanket exemption from antidegradation review is either appropriate or consistent with the Federal antidegradation and permitting requirements. Since treatment and pollution control technologies change over time, regular reconsider the antidegradation review of general permits is warranted with each renewal of the general permit.

Recommended changes to Indiana's rules:

The general permit provisions identified above should be revised to clarify that an antidegradation review is required of each general permit as it is issued and reissued.

OFFICIAL COMMENT

VALLEY WATCH, Inc.
800 Adams Avenue • Evansville, IN 47713 • (812) 464-5663

January 30, 2010 By Fax January 30, 2010

LSA Document #08-764 (Antidegradation)
MaryAnn Stevens
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
100 North Senate Ave.
MC 65-41
Indianapolis, Indiana 46204-2251

Dear Ms. Stevens:

Please accept these comments on behalf of Valley Watch, Inc. an Indiana corporation whose purpose is to protect the public health and environment of the lower Ohio River Valley.

We also, support as our own comments those filed on behalf of the Hoosier Environmental Council and the Environmental law and Policy Center.

Our main concern with the proposed antidegradation rule as it is proposed are the voluminous "exemptions" the proposed rule purports to grant. Exemptions should by definition be rare and be supported by sufficient evidence that it is either physically impractical for a source to comply or there are not controls or methods which can be used to control the resulting pollution.

In this proposed rule IDEM has offered no compelling evidence that the exemptions are justified or reasonable, essentially simply granting exemptions in an arbitrary and unnecessary manner.

Another aspect of the exemption section of the rule is the overly stringent requirement that at least twenty-five people are required to petition for exemption review in the ten digit watershed or within fifteen miles of where the loading will take place.

Valley Watch feels that twenty-five people places an undue burden on citizens who are only seeking to protect the waters of the area in which they may live. Such petitions should require no more than five petitioners and no requirement for residency since degrading the water quality in one area definitely impacts the water quality of downstream areas, too.

Further, the use of high unemployment, low income and poverty rates to justify exemptions is completely counter to the Executive Order 12898 signed by President Clinton requiring

agencies requiring agencies "to address environmental justice in minority and low income populations."

Specifically, that Order states in part, "1-101. Agency Responsibilities. To the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, ***each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States*** and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Marian islands."

Granting exemptions to allow increased pollution in an area simply due to it being low income is directly opposed to the whole idea behind the Executive Order in the first place.

Since IDEM is contractually bound and authorized by EPA to administer all federal law applying to water in the state, IDEM is therefore subject to the same provisions of the captioned Executive Order as if it were the USEPA.

In this case, adoption of these rules will render Executive Order 12898 moot and therefore claiming exemptions for areas because of any perceived economic issue is outside the provisions of the Executive Order and therefore outside the law.

Thank you for receiving these comments and we trust that IDEM will respond to them in a reasonable timeframe and with totality.

John Blair, president