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## **Analysis of IDEM Draft Rule Antidegradation Implementation Rule**

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Regular type is my attempt to state or paraphrase proposed regulation  
*Italics are my comments.*

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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.*

- *This 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 that 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 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(1)). 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 outside 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 inside 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 outside Great Lakes Basin AND without water quality criterion

- use water quality value and proposed increase is < **or** = **2%**

(CC) 307(a) Toxic Substance – nonBCC inside 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 health 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 an 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 life?*

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 requirements 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 only matter the entire 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 or endangered species” since no species is simultaneously listed as both “threatened and 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 to implement 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 application”

- *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 REGULATION**

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 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 a 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 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 the 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 IMPROVEMENT 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 amount 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 antidegradation 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 antidegradation 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 a 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