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Technical Memorandum

Date: July 13, 2012

To: Nancy Sonafrank, Alaska Department of Environmental Conservation

From: Barry Topping, Tetra Tech

RE: Report on State Use of De Minimis Exemptions in Antidegradation Reviews

Greetings

Here is the summary of how states responded to questions regarding whether or not they were using a de minimis exception, and whether or not they thought it saved them any time during the permit review process.

ARIZONA

Arizona has a *De Minimis* General Permit (DMGP), which allows for discharges associated with potable and reclaimed water systems, subterranean dewatering, well development, aquifer testing, hydrostatic testing of specified types of pipelines, residential cooling water, charitable car washes, building and street washing, and dechlorinated freshwater swimming pool drainage. The permit also allows other short-term and/or low volume discharges that have been specifically approved in writing by ADEQ on a case-by-case basis. By definition (i.e., DMGP Part VII), de minimis discharges 1) meet the applicable surface water quality standards, 2) are generally of limited flow and/or frequency, and 3) do not last continuously for longer than 30 days unless approved in advance by ADEQ. Note that Arizona has few perennial waters – most are ephemeral or intermittent.

IDAHO

US EPA Region 10 issues NPDES permits for Idaho. Antidegradation reviews are conducted by the state under rules promulgated at IDAPA 58.01.02.052.08, which provides the following guidance on water quality degradation deemed to be “insignificant”:

- a. Insignificant Activity or Discharge. The Department shall consider the size and character of an activity or discharge or the magnitude of its effect on the receiving stream and shall determine whether it is insignificant. If an activity or discharge is determined to be insignificant, then no further Tier II analysis for other source

controls (Subsection 052.08.b.), alternatives analysis (Subsection 052.08.c.) or socioeconomic justification (Subsection 052.08.d.) is required.

- i. The Department shall determine insignificance when the proposed change in an activity or discharge, from conditions as of July 1, 2011 will not cumulatively decrease assimilative capacity by more than ten percent (10%).
- ii. The Department reserves the right to request additional information from the applicant in making a determination a proposed change in discharge is insignificant.

Note that Idaho's antidegradation implementation procedure was adopted earlier this year, so the experience with actually using the de minimis (i.e., "insignificance") exemption is somewhat de minimis itself. However, US EPA Region 10 indicates that the state does seem to be using this part of the new rule. Applicants for a de minimis exemption are being required to demonstrate the decrease in assimilative capacity through calculations – the technical approach was not addressed.

KANSAS

Kansas is not using any sort of de minimis exemption for antidegradation reviews.

MISSOURI

Missouri is using a de minimis approach, which the state calls "insignificant" or "no degradation." The process is a little quicker than the standard antidegradation review, because if the facility qualifies no alternatives analysis or social/economic justification is needed. The exemption is applied in two basic ways: the facility can demonstrate that it is not increasing pollutant loads, or that load increases to the receiving stream are less than 10%. If the applicant wants to make its demonstration based on assimilative capacity impacts, existing water quality data is required. The state requires calculations on loads and on the assimilative capacity of the river. Dissolved oxygen modeling is required for facilities that have BOD limits greater than 10 mg/L. Missouri has had facilities submit a QUAL2K modeling, but that is not the standard – usually, it is a simpler Streeter-Phelps model.

The state receives "minimal or insignificant" degradation requests often for facilities upgrading from a lagoon to a mechanical treatment plant, or for facilities on larger rivers, such as the Missouri or Mississippi. The implementation of ammonia criteria, which is currently ongoing, is probably a limiting factor for a number of facilities because the effluent limit is 1.4 mg/L. The overall review process from the department's side is pretty much the same whether or not the facility elects to go with a demonstration of insignificant degradation or they elect to assume significant degradation.

A number of facilities have conducted a hybrid approach to demonstrate insignificant degradation for traditional pollutants (BOD, TSS), complemented by an alternatives analysis for significant degradation for ammonia and some metals. A recent change in statutes requires an

affordability analysis for all publicly owned facilities, which requires knowledge of costs associated with projects and alternatives evaluated. This may require more information be submitted with insignificant degradation requests so the agency can make better informed decisions.

PENNSYLVANIA

The Pennsylvania Department of Environmental Protection is not accepting de minimis exemptions from antidegradation reviews – all applicants are subject to reviews, based on the receiving water type. Social or economic justifications and alternatives analyses are used for high quality waters (Tier 2). If a measurable change in water quality is predicted, the applicant must submit a social/economic justification. For exceptional value waters (Tier 3), no social/economic justification is accepted; the requirement for applicants is that no measurable change in existing water quality is allowed (i.e., the standard Tier 3 requirement).

WEST VIRGINIA

West Virginia is not actively using the de minimis exception.

WYOMING

Wyoming has provisions for a de minimis exception. The state waives Tier 2 antidegradation reviews for projects using less than 20% of the available assimilative capacity. Agency staff believes there is some time savings on permit reviews.