



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS TX 75202-2733

SEP 21 2010

The Honorable Bill Callegari  
The Honorable Brandon Creighton  
Texas House of Representatives  
Post Office Box 2910  
Austin, TX 78768-2910

Dear Mr. Callegari and Mr. Creighton:

Thank you for your letter dated August 17, 2010, regarding the proposed U.S. Environmental Protection Agency (EPA) Region 6 directive to have wastewater treatment facilities comply with sublethal whole effluent toxicity (WET) limits under their Texas Pollution Discharge Elimination System (TPDES) permits. These permits are issued by the Texas Commission on Environmental Quality (TCEQ). I understand their, and your, concerns about this proposed directive. As you noted, EPA has met several times with representatives of the coalition that approached you regarding this matter. For more than five years, EPA has been meeting with, and providing training to, representatives of TCEQ, Texas municipalities, industries and environmental groups on the issue of WET permit limits based on chronic sublethal effects to aquatic organisms.

You requested that EPA not require TCEQ to implement chronic sublethal WET limits in permits until meaningful, predictable test indicators are identified and a reliable method to mitigate test failures is defined. You also asked that EPA rescind its requirement that certain TPDES permits pending before TCEQ include sublethal WET limits as a condition for issuance. Your letter cites a 1999 EPA study which "...found that sublethal effects on indicator species do not necessarily correlate with a detectable adverse ecosystem response." We believe the 1999 EPA study you quote is "A Review of Single Species Toxicity Tests: Are the Tests Reliable Predictors of Aquatic Ecosystem Community Responses?" (EPA/600/R-97/114, July 1999). You suggest there is not a meaningful connection between chronic sublethal WET test failures and actual adverse impacts on aquatic life in the environment.

EPA respectfully disagrees, and notes that the technical bases supporting EPA's approach to WET testing and controls are founded on established scientific principles of aquatic toxicity. Regarding the 1999 EPA study, statements and conclusions drawn without benefit of reviewing the original context may be misleading. Lab toxicity test results on wastewater discharges may not correlate with field study data for a variety of reasons, e.g., dissolved oxygen, nutrient enrichment, stream flow, adequate habitat or toxicity related to upstream nonpoint sources not present in point-source wastewater samples. In fact, studies referenced in the report found that WET test results actually underestimated the level of toxicity in some cases. This would also be a case where WET test results did not correlate with an adverse stream response. A copy of the full report is enclosed for

your review. The testing methodologies have withstood legal challenges through the court system. In *Edison Electric Institute, et al, v. EPA*, 391 F. 3d 1267 (D.C. Cir. 2004) (enclosed), a panel of the U.S. Court of Appeals for the District of Columbia Circuit unanimously found that EPA's WET test methods were sound and that the methods, including the testing procedures measuring chronic sublethal effects, generated reliable test results for the purposes of NPDES permit compliance.

You also asked that EPA not require TCEQ to implement chronic sublethal WET limits until "reliable scientific methods" exist "that permittees can use to identify and eliminate the causes of sublethal toxicity." Reliable scientific methods already exist. These include, but are not limited to, EPA's WET test methods promulgated at 40 CFR Part 136:

- Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I
- Marine Toxicity Identification Evaluation (TIE) Guidance Document, Phase I
- Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures, Second Edition
- Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity
- Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity
- Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program.

These EPA WET methods, as well as other readily available documents developed outside EPA, are being used by industrial and municipal permittees nationally to identify and eliminate the causes of chronic sublethal WET test failures. Many states have been effectively implementing sublethal toxicity study requirements and limits, and reducing the toxic effects of undifferentiated waste streams on receiving waters. The low – and declining – rate of noncompliance with those toxicity limits indicates that the causes of lethal and sublethal toxicity can be identified and/or controlled.

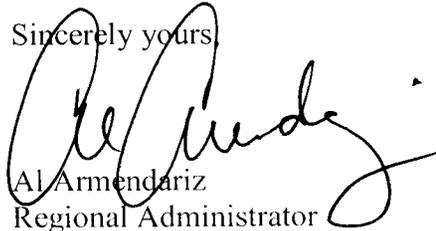
EPA is aware of at least two successful sublethal-only toxicity studies conducted in Region 6 within the last year. Those studies, completed by laboratories in Region 6 for Texas permittees, identified the sources of sublethal toxicity.

EPA does not agree that achieving compliance with chronic sublethal WET requirements will require Texas permittees to spend millions of dollars unnecessarily. The successful completion of sublethal toxicity studies may sometimes present technical challenges for a competent aquatic toxicologist and sanitary engineers, and may require methodical and sustained diligence to identify and reduce causes of toxicity, but such studies are the key to eliminating toxic discharges. EPA has

reliable WET test methods (for acute and chronic toxicity) that have long been used nationwide in conjunction with the additional guidance listed above to enable Texas permittees, laboratories and others to identify and eliminate the causes of chronic sublethal WET test failures and meet the requirements of the Texas water quality standards for protecting aquatic life.

I believe that working together we can protect our State's vital water resources while promoting economic growth. We are committed to work with TCEQ to ensure that permits protect the environment and public health. If you have any further questions, please contact me at (214) 665-2100, or your staff may contact Ms. Cynthia Fanning of my staff at (214) 665-2142.

Sincerely yours,



Al Armendariz  
Regional Administrator

Enclosures

cc: Mark R. Vickery, P.G.  
Executive Director, Texas Commission on Environmental Quality