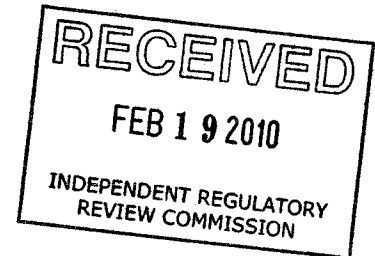


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From: Becky Snyder-Hart Resource Technologies, Inc [hart8600@comcast.net]
Sent: Friday, February 12, 2010 2:15 PM
To: EP, RegComments
Subject: Comments of Chapter 95 Rulemaking
Attachments: HRT Chapter 95 Comments.doc

Please accept these comments on the proposed rulemaking for 25 PA Code Chapter 95 Wastewater Treatment Requirements. If you have any questions, please contact me at 724-349-8600. Thank you.

Becky Snyder

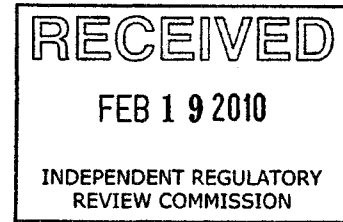


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HART RESOURCE TECHNOLOGIES, INC
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Phone: 724-349-8600 • Fax: 724-349-8601

February 9, 2010

Environmental Quality Board
PO Box 8477
Harrisburg, PA 17105-8477



Dear Members of the Board,

The comments below are being submitted in response to the Department's proposed changes to 25 PA CODE Chapter 95 (Wastewater Treatment Requirements).

DEP first proposed changes to Chapter 95 at the June 19, 2009 Water Resource Advisory Committee (WRAC) meeting. The Committee members asked numerous questions concerning the promulgation of the proposed regulation including:

- a. the methods used to develop the TDS limitations;
- b. why an end-of-pipe limitation was chosen instead of a Water Quality Based limitation;
- c. the scientific data to substantiate the regulation change;
- d. the technology that is required to meet the proposed effluent limitations;
- e. how the new regulation would affect existing permitted discharges;
- f. the environmental cost-benefit analysis for the proposed change; and
- g. the expedited timeframe for implementation.

We believe that the Department has not provided adequate justification for the proposed rule change, as outlined below:

- In answer to the questions posed by WRAC, DEP has provided very little documentation for the implementation of a state-wide TDS limitation. Studies on the Monongahela River were presented which indicated that there was a problem with high TDS in October and November of 2009. However, after a major study by Tetra Tech Engineering was completed, these high TDS values centered on the sulfate loading in the River from abandoned mine drainage combined with extremely low flow conditions, rather than TDS generated by industrial dischargers.
- In the Department's *"Permitting Strategy for High Total Dissolved Solids (TDS) Wastewater Discharges"*, DEP states that "water quality analyses performed for the major watersheds of the Commonwealth to date show that many of the rivers and streams of Pennsylvania have a very limited ability to assimilate additional TDS, sulfates, and chlorides" and refers to reports on the Beaver, Conemaugh, and West Branch of the Susquehanna Rivers. However, the Strategy does not contain any printed long-term documentation to support those statements. In response to these assumptions, the Allegheny Conference of Community Development issued a report in January 2010 titled: *"Total Dissolved Solids in Pennsylvania Watersheds"*. In this report it was shown that fewer than 3% of the samples collected by the DEP over the past 30 years have exceeded 500 mg/l for TDS in the Monongahela River. The Beaver River has not exceeded the TDS level of 500 mg/l since August of 1998 and less than 1% of the 588 samples analyzed in the West Branch of the Susquehanna River have exceeded the TDS limitation since 1973.

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Implementation of a 500 mg/l TDS standard on new dischargers will have no significant impact on the few times TDS limits were exceeded in the Monongahela River or other rivers, since the strategy does not address the existing sources of TDS (acid mine drainage) or low flow conditions.

- The Strategy also includes information about the amounts of fluids that will be generated during the development of the Marcellus Shale and the concern about the high TDS in these fluids. This Strategy overestimates the volume of flowback water that will be generated. The Marcellus Shale Coalition has recently provided information to the DEP indicating that only 20-25% of the fluids used to frac are being returned to the surface in the way of flowback fluids. The industry has also developed reuse/recycle strategies for this flowback water so that many companies are reusing over 50% of the flowback water, thus reducing the amount of fluids that will need to be treated at conventional facilities.
- TDS, chlorides, and sulfates are regulated under EPA's National Secondary Drinking Water Regulations. These regulations are non-enforceable guidelines regulating contaminants that may cause cosmetic or esthetic effects in public drinking water systems. EPA recommends these secondary standards to water systems, but does not require compliance, because as stated in EPA's explanation of secondary standards: "these contaminants are not considered to present a risk to human health at the SMCL".

During the Water Quality Standards Implementation under the Regulatory Basics Initiative of Chapter 93 in 2000, sulfates and chlorides were omitted from Table 4 of 93.7. At that time DEP recommended modifying the regulation to include sulfates and chlorides on the list of exceptions which are applied at the point of water supply withdrawal. DEP, in their response document, commented that **"The criteria for sulfate and chloride are the same as the secondary MCLs of the drinking water program and are not a significant concern from a public health perspective but are an aesthetic consideration. Historically, DEP has not treated these as statewide parameters of concern and we continue to believe that they should be used to develop water quality-based effluent limits only in situations where there is potential for a downstream potable water supply to be negatively impacted by a discharge containing these contaminants."** The Department has not provided adequate documentation that a continuing problem exists with potable water supplies that would require a "statewide" TDS limitation, rather than evaluating and limiting parameters of concern on a case-by-case watershed basis.

- DEP states in the "Compliance Costs" section of their proposed rulemaking that "new or increased discharges will be required to install advanced treatment to meet requirements" and that it is "anticipated that treatment costs could be on the order of \$0.25/gallon". Again, there is no documentation provided as to how this treatment cost was derived, what technologies were evaluated, and how applicable the technologies are to the numerous industries that would be impacted by the new TDS ruling. Additional research needs to be performed as to the implications from the proposed rulemaking:
 - What will the costs be to the State itself for compliance:
 - Will any State-run facilities be affected.
 - What will happen to non-point source run-off from salt stockpiles/truck wash facilities at maintenance sheds and/or the application of road salt to maintain highways in the winter.

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- What and how many industrial/NPDES/mining dischargers will be affected and how will the the costs for compliance be passed on to the consumers, i.e. increased costs for energy and goods.
 - How many municipal facilities (potable and sewage) will be affected and how will these costs be passed on to the consumer.
 - What implications will this have on the marginal shallow gas well producers who employ 26,000 people and produce 20% of Pennsylvania's natural gas.
 - What will be the associated environmental trade-offs measured in increased energy usage (electric and gas) and the related greenhouse gas emissions generated from the development of these new technologies.
 - What is the cost/implementation for managing the residuals that will be generated by the concentration of the salts in the proposed new technologies. Will these residuals create an even greater problem by entering the freshwater systems upon disposal.
- In DEP's Proposed Rulemaking commentary, the Department stated that they had conducted many outreach sessions to educate stakeholders about the proposed regulations. However all of the meetings outlined were directed at the Marcellus Shale producers, not the many other industries that will be affected such as mining, power generation, POTW's, drinking water suppliers, food processors, petroleum refiners, pharmaceuticals, meat packing, and chemical manufacturing, as identified by the Pennsylvania Chamber of Business & Industry. Many of these industry sectors verified that most of their members did not know about the proposed rule change.
 - In developing the criteria for the revision of their environmental regulations for TDS, chloride, and sulfates, Iowa in 2009, developed their regulations by first analyzing background levels of these constituents in streams and the contributors of high chloride discharges; reviewed current national criteria; worked with EPA to update and analyze literature research on chlorides and sulfates; and reviewed other states' approaches to the problem. Illinois in 2006 performed extensive literature research and new studies of sulfate aquatic life toxicity, as well as studying the chemical and physical water quality data from their 200 stream monitoring stations across the state.

The above-mentioned studies required several years of research to investigate changing the state standards. PA DEP introduced the proposed TDS regulation in less than one year. No accompanying documentation was presented to the public other than the "*Permitting Strategy for High Total Dissolved Solids (TDS) Wastewater Discharges*" in April 2009. A regulation of this importance should justify additional time and research in order to provide the stakeholders with more information to make an informed decision.

- The time frame of January 1, 2011 is also an unrealistic goal for the implementation of this proposed rulemaking. Numerous industries exploring the new technologies that will be needed to meet the proposed TDS limitation have found that even in a "best-case" scenario, the time required for design, permitting, ordering, construction, and final testing will not be possible sooner than 30-36 months.

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At the July 15, 2009 meeting of WRAC, the members by majority vote approved a recommendation that initiated the formation of a stakeholders group “to analyze the issues and develop appropriate solutions”. The recommendation also stated that “WRAC believes that the ramifications of the draft Chapter 95 regulations are wide ranging and have not been adequately analyzed by the Department. Specifically, WRAC believes that the draft regulation needs to be supported by science.” In addition to the questions raised by WRAC, the Pennsylvania Oil and Gas Technical Advisory Board has also conveyed their concerns in a letter to the Department including delaying and reconsidering the proposed change “pending a thorough investigation into the technical aspects of treating high TDS wastewaters”.

Although the Department states that the Clean Streams Law “delegates the authority to preserve and improve the purity of its waters and develop remedies to purify those waters currently polluted to the Department, in the form of adopting rules and regulations as necessary to accomplish these tasks”, the Department has failed to present compelling evidence to change the current law.

Thank you for the opportunity to address the proposed regulation change.

Sincerely,

Rebecca Snyder

Rebecca Snyder
Operations Manager