



PENNSYLVANIA MUNICIPAL AUTHORITIES ASSOCIATION

1000 North Front Street, Suite 401 Wormleysburg, PA 17043

717-737-7655 ▪ 717-737-8431(Fax)

www.municipalauthorities.org ▪ info@municipalauthorities.org

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

[Sent via electronic mail to RegComments@state.pa.us]

The Pennsylvania Municipal Authorities Association (PMAA) represents over 740 municipal authorities across the Commonwealth providing drinking water and sewage treatment management to more than six million Pennsylvania citizens.

The comments below are submitted in regard to the proposed revisions to 25 PA Code, Chapter 95 for control of Total Dissolved Solids (TDS), and other parameters, that was published in the November 7, 2009 PA Bulletin.

Drinking Water Source Protection Concerns

Public water supply systems (PWS) with source water intakes on rivers and streams have always been vulnerable to source water quality changes (natural and man-made) beyond their control. TDS is one water quality parameter that is particularly problematic in view of the required sophistication and cost of drinking water treatment (particularly if TDS levels fluctuate seasonally).

It does not appear, however, that the Department has fully evaluated the nature and extent of elevated TDS levels in many rivers and streams across the state, and we therefore question the need to impose the arbitrary effluent standards for TDS, chloride and sulfate contained in this proposed rulemaking on a potentially huge number of current and future wastewater dischargers.

There is a regulatory exception in 25 PA Code Section 96.3(d) that allows the Department to apply the instream water quality criteria for TDS, chloride, sulfate at the nearest downstream PWS intake. In view of concerns about elevated levels of these parameters in some watersheds, it may be prudent for the Department to reconsider how and when to employ this regulatory exception in those watersheds. Such an examination should include a determination of how the Department keeps track of upstream discharges of TDS for the purposes of determining the need for TDS limits in NPDES permits.

In addition, the Department should re-examine the role of the existing instream water quality criterion for Osmotic Pressure, and the pending development of a criterion for Chloride, in controlling existing and future discharges of high-TDS wastewater.

Municipal Wastewater Treatment Concerns

There are 1,000 +/- Publicly-Owned Sewage Treatment Works (POTWs) in PA. TDS is a common component of municipal wastewater and is composed of various organic and inorganic constituents from: household sewage and drinking water; commercial and industrial customers; and biological and chemical processes used in sewage treatment. Many POTWs already discharge TDS at levels greater than 500 mg/l

and some already discharge TDS above 2,000 mg/l. A few very large POTWs actually discharge more than 100,000 lbs/day.

We are not aware that TDS-related water quality problems have been attributed to any of these POTWs. On the other hand, the proposed regulation may pose severe financial and technological consequences for many POTWs due to future possible actions by DEP imposing effluent limitations of 500 mg/l simply because:

- A POTW currently discharges TDS higher than 500 mg/l and its volume may increase in the future (due to community growth or new industrial/commercial customers);
- A POTW currently discharges more than 2,000 mg/l or 100,000 lbs/day of TDS;
- Because a POTW accepts a small amount of oil/gas well wastewater

There are some other special circumstances in which the imposition of a 500 mg/l TDS effluent limit on a POTW would be very problematic:

- Some POTWs may want to recycle/reuse some of their wastewater, resulting in effluent TDS that exceeds the proposed 500 mg/l effluent limit.
- Most older cities and some other communities still have combined sewer systems that convey municipal sewage and stormwater runoff to their POTWs during wet weather. During and after snowfall events in the winter, when significant amounts of road salt are spread on roads and streets, the wastewater discharged from those POTWs can contain TDS levels well above the proposed 500 mg/l effluent limit.

Forcing a POTW to consistently achieve a TDS effluent level < 500 mg/l could result in:

- The POTW losing significant industrial or commercial customers (along with significant loss of revenue);
- The POTW having to impose burdensome industrial pretreatment requirements;
- The POTW having to incorporate very advanced and costly sewage treatment designed to reduce TDS (e.g. reverse osmosis) which would then generate high-TDS residual waste.
- Triggering the “anti-backsliding” provisions of EPA’s NPDES permit program regulations, which would prevent the Department from removing an effluent limitation in the future (even if it is subsequently deemed un-necessary for water quality protection).

General Recommendation

In view of the potential widespread economic consequences of the proposed rule, and the apparent lack of documentation of widespread environmental impact from TDS, at this time it would make sense for the Department to narrow the focus of this rulemaking to controlling TDS from those sources having the greatest potential for causing significant water quality degradation.

The primary initial focus should be on wastewater sources attributable to the Marcellus Shale gas production industry. The Department should take that industry at its word and recraft the regulation to require the industry to:

- Maximize the recycle and reuse of wastewater produced during the well fracing operations to minimize the volume of wastewater produced;
- Make full use of opportunities to dispose of excess wastewater via underground injection under the federal UIC permitting program;
- Comply with specific, technology-based treatment or pretreatment standards for TDS and other pollutants of concern in this wastewater where recycle/reuse or UIC disposal options are not available;
- Comply with locally-derived water quality-based treatment requirements where necessary.

The next obvious source of TDS-related water quality problems is acid mine drainage (AMD) from abandoned, and some active, coal mining operations. The Department should continue to target its regulatory efforts (for active operations) and abandoned mine reclamation funding efforts in those watersheds where AMD problems exist.

Other Suggestions For Modifying The Proposed Regulation

If the Department is unable to refocus the regulation, as described above, we would strongly suggest that the following steps be taken prior to finalizing the regulation:

- Modify 95.10(a) in a way that does not inadvertently capture POTW and other sources that have TDS levels above the stated trigger levels, and which have otherwise not caused instream water quality problems.
- Clarify how the Department will determine what constitutes a “new discharge” so as to not include situations where a POTW is expanding due to community growth or addition of industrial or commercial customers.
- Recognize factors that affect TDS levels in POTW influent which could result in TDS discharge levels above the proposed trigger levels , and allow for some sort of “net” TDS effluent limitation.
- Refocus the regulation to address the inorganic constituents of TDS.
- Clearly exempt POTWs from having to meet the effluent standards in 95.10 (b).
- Clarify that a POTW accepting oil/gas wastewater is not considered a Centralized Waste Treatment (CWT) facility for the purposes of 95.10 (c) (5).
- In the preamble for the final rulemaking proposal, clarify the basis (in EPA regulations) for the requirement in 95.10 (c)(6)(ii) for POTWs to develop and maintain a Federal pretreatment program. NOTE: it is not clear that the EPA pretreatment program regulations actually require POTWs to do this by virtue of accepting discharges from a Marcellus Shale wastewater treatment facility. If this is not actually necessary, we suggest that the Department establish and enforce the appropriate pretreatment requirements for such discharges.

Thank you for the opportunity to provide comments.

Sincerely,

A handwritten signature in black ink that reads "Peter T. Slack". The signature is written in a cursive, slightly slanted style.

Peter T. Slack
Governmental Relations Associate