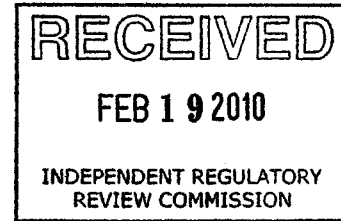




2806

DEPARTMENT OF THE ARMY  
PITTSBURGH DISTRICT, CORPS OF ENGINEERS  
WILLIAM S. MOORHEAD FEDERAL BUILDING  
1000 LIBERTY AVENUE  
PITTSBURGH, PA 15222-4186



February 9, 2010

Pennsylvania Environmental Quality Board  
Rachel Carson State Office Building, 16<sup>th</sup> Floor  
400 Market Street  
Harrisburg, PA 17105-2301

The US Army Corps of Engineers ("USACE"), represented by the Pittsburgh District and in consultation with technical offices in the Baltimore and Philadelphia Districts, offers the following comments in response to the Environmental Quality Board's ("Board") proposal to amend 25 Pa. Code Chapter 95 (relating to the Pennsylvania's wastewater treatment requirements) ("Proposed Amendments").

The USACE is IN FAVOR of the Proposed Amendments, and commends the Board and the Pennsylvania Department of Environmental Protection (Department) for taking this important step toward ensuring the continued protection of Pennsylvania's water quality and the safety and potability of Pennsylvania's drinking water supplies. The USACE also respectfully submits that the Proposed Amendments must be more stringent to achieve their intended goals.

#### I. Introduction

The USACE plays a vital role in maintaining the flow, navigability, and water quality of the Pennsylvania's water resources. Specifically, the Pittsburgh District operates and maintains 16 reservoir projects and 23 locks and dams in the upper Ohio River basin. The Baltimore District operates and maintains additional reservoirs in the Susquehanna River Basin as does the Philadelphia District in the Delaware River Basin.

The projects described above are authorized by Congress for statutory purposes including, but not limited to, flood control, low-flow augmentation, water quality, water supply, navigation, fish and wildlife protection, and recreation. The USACE reconciles these purposes to achieve an appropriate and sustainable balance between them. This balance is achieved, in part, by carefully synchronized schedules for water release from our reservoirs and water retention of our dams.

Specifically, the USACE's water quality mission arises out of various congressional authorizations, Executive Orders, and Federal laws. These authorizations direct the USACE to operate and manage their reservoirs to improve water quality both in the reservoir impoundments and in the downstream reaches of river. More than 88% of storage in Pittsburgh District reservoirs is exclusively dedicated to water quality, approximately 8,000 linear miles of stream are controlled by these reservoirs, and over 1,030 miles of 21 major streams are directly influenced by District reservoir releases.

The USACE also maintains robust current and historical water quality data in partnership with the U.S. Geological Survey, through a network of monitoring stations on a number of rivers and streams in proximity to these reservoirs. In order to assure operations for optimum water quality benefits, The Pittsburgh District has maintained a "grab sample" water quality monitoring program in the upper Ohio River basin in PA since the late 1960's, and has also operated 10 continuously recording water quality monitors since the mid-1990s. Samples are routinely analyzed for a variety of parameters (specific conductivity, solids, nutrients, metals, hardness, alkalinity, acidity, EPA priority pollutants, etc) and real-time monitors measure water temperature, dissolved oxygen, specific conductivity, pH, and/or total dissolved gas.

After four decades of demonstrable improvement in water quality, the USACE's data shows that conditions are reversing on Pennsylvania's rivers. It is becoming apparent that the assimilative capacity of some rivers to receive total dissolved solids, if not already exceeded, is close to being exceeded, and simply cannot sustain the additional loading projected as a result of natural gas exploration activities. In the last two years, evidence of degradation, based on elevated specific conductivity readings recorded at water quality monitors located on the Monongahela River at Elizabeth, PA, the Casselman River at Markelton, PA, and the Conemaugh River at Conemaugh Dam, in addition to the recent Dunkard Creek aquatic kill, demonstrates that high TDS wastewaters threaten to undermine historical water quality improvements, posing a genuine and extreme threat to regional water quality.

## II. Proposed Amendments' Background and Purpose

The USACE concurs with the Department's statements and conclusions set forth in the Proposed Amendments' Background and Purpose narrative statement. Opponents to the Proposed Amendments have advanced the position that insufficient data/science exists demonstrating a reversal in historical water quality trends to support promulgation and passage of the Proposed Amendments. In that regard, by way of supporting evidence, the USACE offers Exhibits A-B, attached hereto and incorporated herein by reference.

## III. Proposed Amendments

### A. 25 Pa. Code §95.10(a) (proposed):

*For the purpose of implementing this section, a new discharge of High-TDS wastewater is a discharge that did not exist on April 1, 2009, and includes a TDS concentration that exceeds 2,000 mg/L or a TDS loading that exceeds 100,000 pounds per day. The term "new discharge" includes an additional discharge, an expanded discharge or an increased discharge from a facility in existence prior to April 1, 2009.*

### **COMMENT:**

The USACE recommends that the definition of "new discharge" be revised to exclude the 2,000 mg/l or the TDS loading of 100,000 pounds per day threshold requirements. These requirements

fail to address the cumulative effect of combined, smaller-source TDS dischargers on streams. If the Department must select a threshold TDS concentration, the USACE recommends 750 mg/l.

Additionally, the term “new discharge” should be expanded to include “facilities in existence prior to April 1, 2009 upon permit amendment, modification, or renewal by any such facility.” Further, the Department should expressly prohibit a holder of multiple NPDES permits from apportioning its discharge loading among multiple facilities to evade regulation.

Finally, this section should be revised to further limit or prohibit high TDS wastewater discharges proportional to the sensitivity of the receiving water. Factors to consider should include, but are not limited to: (1) the receiving waters’ flow criteria; (2) the seasonal variations affecting the receiving water; (3) the status of the receiving water as a headwater tributary; and (4) established stream designation and uses. For example, no discharge should be permitted to High Quality or Exceptional Value streams. Moreover, no discharge should be permitted during periods of low-flow, as determined by the Department.

B. 25 Pa. Code §95.10(b) (proposed):

*Unless specifically exempted under paragraph (6), new discharges of wastewater with High-TDS must comply with the following... (2) The discharge may not contain more than 500 mg/L of TDS as a monthly average[;] (3) The discharge may not contain more than 250 mg/L of total chlorides as a monthly average[; and] (4) The discharge may not contain more than 250 mg/L of total sulfates as a monthly average.*

**COMMENT:**

The USACE recommends that monthly averages be eliminated because they fail to adequately protect aquatic life. Rather, the Department should instead adopt daily, or instantaneous criteria. The 500 mg/l and 250 mg/l measurements should be retained.

C. 25 Pa. Code §95.10(c)(2) (proposed):

*Treated discharges of wastewater generated from fracturing, production, field exploration, drilling, or well completion may be authorized by the Department under Chapter 92 (relating to National Pollutant Discharge Elimination System Permitting, Monitoring and Compliance). The discharges shall be authorized only from centralized waste treatment (CWT) facilities and approved Publicly Owned Treatment Works (POTWs).*

**COMMENT:**

Insert the word “only” before the phrase “treated discharges of wastewater. Insert the word “approved” before the phrase “centralized waste treatment (CWT) facilities.” Additionally,

disposal into surface waters of wastewater generated from fracturing, production, field exploration, drilling, or well completion should be expressly prohibited.

D. 25 Pa. Code §95.10(c)(3) and (c)(4) (proposed):

*The discharge may not contain more than 10 mg/L of total barium as a monthly average[; and] [t]he discharge may not contain more than 10 mg/L of total strontium as a monthly average.*

**COMMENT:**

As previously stated above, the USACE recommends that monthly averages be eliminated and that daily, or instantaneous criterion is used. Additionally, the Proposed Amendments should also include relevant and appropriate limits for bromide, arsenic, radium, benzene, sodium, strontium, boron, and magnesium.

IV. Additional Recommendations

The USACE submits the following additional recommendations to the Department and Board for its consideration:

A. To the extent that it is not already so provided, where discharge through a POTW or CWT is proposed, pretreatment must include removal of constituents comprising TDS, as well as radionuclides and radioactive materials;

B. Adopt and implement Federal aquatic life and human health criteria for chloride; alternatively, adopt and implement Pennsylvania's proposed water quality criteria for chloride for aquatic life use protection at 230 mg/l - chronic and 860 mg/l - acute; and

C. Identify, resolve and eliminate the inequities created by the absence of a River Basin Commission in Western Pennsylvania. In that regard, the USACE recommends that the Department adopt and implement the Delaware River Basin Commission's (DRBC) criteria for special protection waters. 18 C.F.R. 410; DRBC Regulations. Additionally, the Department should create and execute a monitoring program similar to the program that DRBC undertook to characterize existing water quality in Pennsylvania's Lower Delaware River, to demonstrate water quality standards in the Ohio River Basin are at least equal to existing criteria in other portions of the Commonwealth.

Respectfully submitted,



Michael P. Crall  
Colonel, Corps of Engineers  
District Engineer

Exhibit A

Monongahela River

"Worse Case" Summer Season Specific Conductivity For Period of Record (1974 - 2006),  
and Maximum Specific Conductivity Recorded at @ Elizabeth PA During 2008 & 2009

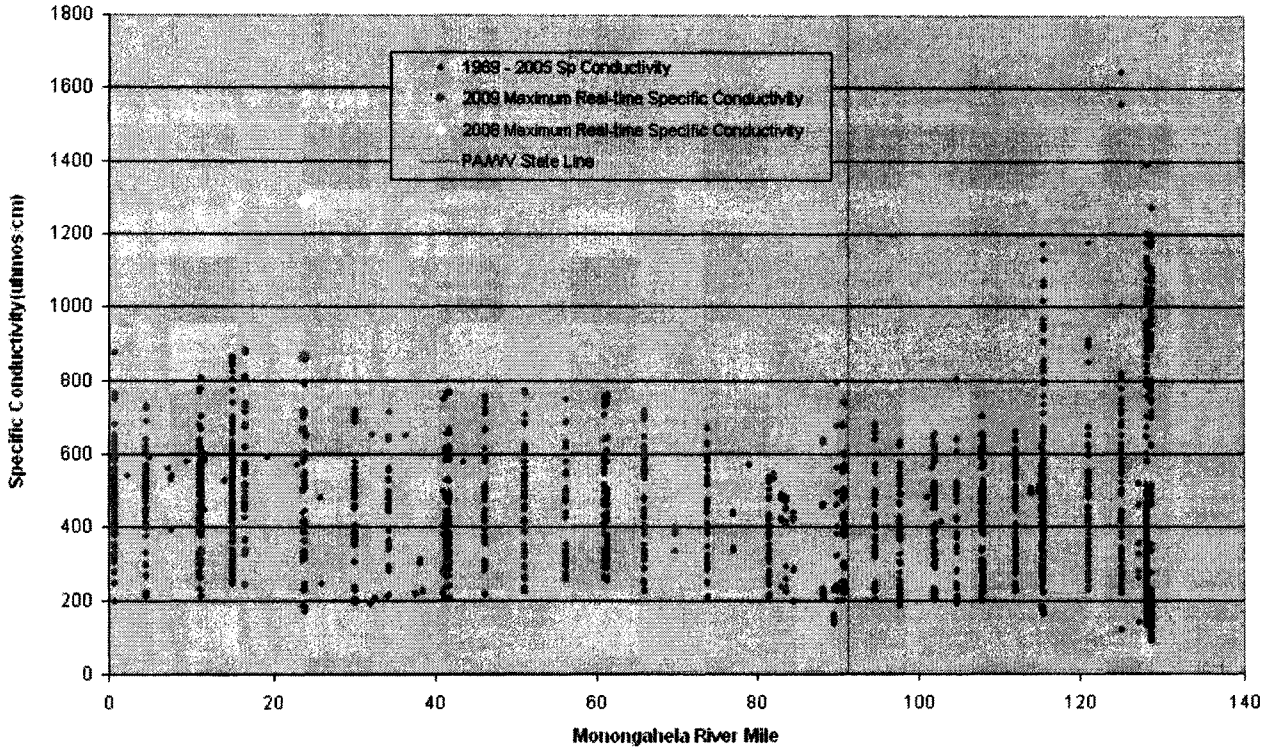
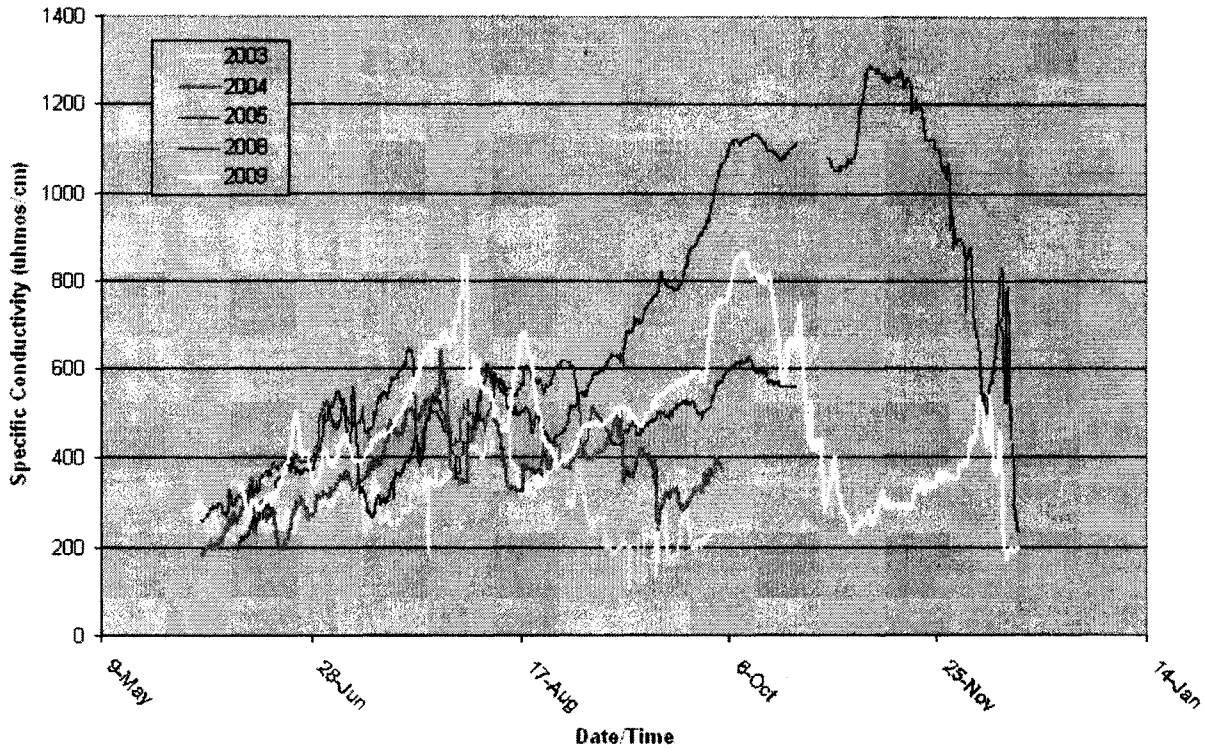


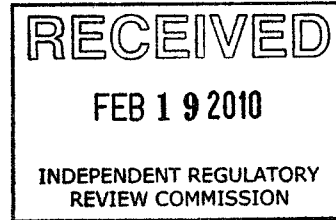
Exhibit B

Monongahela River Mile 23.8 at Elizabeth L/D  
Specific Conductivity 2003, 2004, 2005, 2008, & 2009



**From:** Meeder, Curtis N LRP [Curtis.N.Meeder@usace.army.mil]  
**Sent:** Thursday, February 11, 2010 11:30 AM  
**To:** EP, RegComments  
**Cc:** Adipietro, Dana M LRP; Reilly, Rosemary J LRP; Meeder, Curtis N LRP  
**Subject:** FW: Scanned Document  
**Attachments:** document2010-02-11-111236.pdf

**Importance:** High



Environmental Quality Board Members,

Please accept the attached file as comments from the Army Corps of Engineers, Pittsburgh District on the proposal to amend 25 Pa. Code Chapter 95 concerning Wastewater Treatment Requirements. We are submitting the identical comments to send by Express Mail later today.

Thank You.

Curt Meeder  
Army Corps of Engineers, Pittsburgh District, Chief, Planning and Environmental Branch  
(412) 395-7206

-----Original Message-----

**From:** Curtis.N.Meeder@usace.army.mil [mailto:Curtis.N.Meeder@usace.army.mil]  
**Sent:** Thursday, February 11, 2010 11:13 AM  
**To:** Meeder, Curtis N LRP  
**Subject:** Scanned Document

Please see the attached document.