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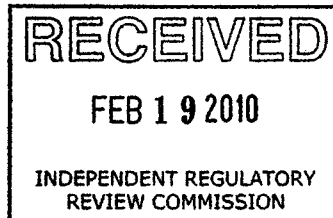
DAVID C. CANNON JR.
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February 11, 2010

Via E-mail and Overnight Delivery

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



**RE: Proposed Rulemaking to Amend 25 Pa. Code Chapter 95
Wastewater Treatment Requirements
39 Pa. Bulletin 6467 (Nov. 7, 2009) and 39 Pa. Bulletin 6547 (Nov. 14, 2009)**

Dear Members of the Environmental Quality Board:

Allegheny Energy, Inc. ("AE") is pleased to submit the following comments to the above-referenced draft rulemaking to amend 25 Pa. Code Chapter 95 (the "Proposed Rulemaking"). The Proposed Rulemaking, in part, proposes to impose effluent standards for new discharges of wastewaters containing high total dissolved solids ("TDS") (the "Effluent Standards"). As stated in the November 7, 2009 *Pa. Bulletin*, the Department drafted the Proposed Rulemaking due to the Department's perception that concentrations of TDS, sulfate and chloride are increasing in the waters of the Commonwealth and with the goal of prohibiting discharges from "new sources of high-TDS wastewaters" to waters of the Commonwealth by January 1, 2011.

I. Introduction

AE is an investor-owned electric generation and distribution company headquartered in Greensburg, Pennsylvania. AE owns and operates ten generating facilities in Pennsylvania with a capacity of over 3,300 megawatts of generation, including coal, natural gas and hydroelectric units. We serve approximately 715,000 customers with low-cost, reliable electric service in twenty-three counties in the Commonwealth, and we employ approximately 2,170 people at twenty-six facilities across the state. AE also has operations in West Virginia, Maryland, and Virginia.

The Proposed Rulemaking is seriously flawed and should be withdrawn for a number of reasons, including without limitation the following:

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The Proposed Rulemaking is seriously flawed and should be withdrawn for a number of reasons, including without limitation the following:

1. There Is No Rational Nexus between the Proposed Rulemaking and the Supposed Harm
2. The Department Failed to Follow Applicable Law and Its Own Guidance in Concluding that Waters Such as the Monongahela River Are Impaired for Total Dissolved Solids
3. The Environmental and Economic Costs of the Effluent Standards Will Exceed Any Possible Benefits Associated with Them
4. The Proposed Rulemaking Should Be Withdrawn for Further Consideration and, in the Interim, the Department Should Implement Remedies in Potential Problem Areas Using Existing, Well-Established Water Quality Controls

II. Comments

1. There Is No Rational Nexus between the Proposed Rulemaking and the Supposed Harm

The Proposed Rulemaking is unreasonable and inappropriate because there is no rational nexus between it and the supposed harm. Even assuming that the Department's perception about increasing levels of TDS, sulfate, and chlorides is correct (which the Department has not demonstrated), the Department has not identified the sources of the constituents and therefore cannot know whether the controls on "new sources of high-TDS wastewaters" will address the perceived problem. (Emphasis added).

The Proposed Rulemaking ignores entire classes of existing municipal and industrial point source dischargers and non-traditional point and non-point source discharges, many of which are known to discharge elevated levels of TDS, sulfate, and chlorides. The Department failed to account for, or indeed even to consider, differences in the nature of TDS discharged by different classes of discharges. The sparse preamble to the Proposed Rulemaking is simply devoid of any meaningful factual or technical analysis. Given the enormous environmental and economic consequences of the Proposed Rulemaking, the Department's analysis is inadequate.

The Department should be required to take a step back and develop a well thought out process to investigate sources of TDS, sulfate, and chlorides, and then implement an equitable strategy that rationally connects the proposed remedy to the documented sources. The piecemeal "last one in pays" approach of the Proposed Rulemaking is not only inequitable and without technical merit, it may not even resolve the perceived problem.

To illustrate these points AE compiled readily available information that identifies actual and potential sources of TDS and sulfate loadings in the Monongahela River. **Exhibit A** contains four maps of the Monongahela River from the PA-WV state line to the mouth of the river at Pittsburgh. These maps were prepared by AE using the eMapPA system. The maps show locations of the following actual and potential sources of TDS along the main stem of the river and along tributaries within the areas covered by the maps:

Discharge Points

Oil & Gas, Coal Mining, Water Pollution Control Facilities

Coal Mining

Mineral Preparation Plants, Post Mining Treatment Facilities, Refuse Disposal Facilities, Refuse Reprocessing Facilities, Surface Mines, Underground Mines, Coal Pillars

Mine Drainage

Coal Refuse Pile Reclamation, Deep Mine Reclamation, Internal Monitoring Points, Mine Drainage Treatment, Oil & Gas Reclamation, Surface Mine Reclamation

Oil & Gas

Land Application, Oil & Gas Wells, Pits, Coal Pillars

There are 655 actual outfalls and numerous potential sources of TDS loadings to the Monongahela River. The Department has made no effort to assess the contribution of these sources to the perceived harm, and eliminating all “new sources of high-TDS wastewaters” will not effectively address the perceived problem.

Indeed, a comparison of the available data to the Department’s explanation of the TDS issue demonstrates the lack of a persuasive causal relationship for this issue. **Exhibits B and C** present the Department’s Monongahela River data for chloride and sulfate collected during the period October to December 2008. These charts demonstrate chloride concentrations are well below the 250 mg/l ambient water quality criterion for chloride, while sulfate concentrations are much higher than chloride concentrations. Sulfate comprises considerably more of the river TDS load than chloride. This indicates a likely more significant contribution from high-sulfate discharges such as acid mine drainage than from discharges of high-chloride brines from gas drilling operations, the source AE understands initially was targeted by the Department in the Monongahela watershed. Again, and just as important, eliminating all “new sources of high-

TDS wastewaters” will not address any of these existing sources (but will, as discussed below, wreak havoc on new development).

In addition, there is a similar population of potential sources across the border in West Virginia and, as discussed below, any control efforts by DEP should include the other major section of this watershed to our south.

The lack of a factual and technical basis for the Proposed Rulemaking was clearly apparent to the Department’s own Water Resources Advisory Committee (“WRAC”), which counseled the Department not to proceed with the Proposed Rulemaking until the underlying facts were understood. WRAC reviewed the preliminary version of the Proposed Rulemaking over the course of two meetings in the Summer of 2009. At its July 15, 2009 meeting, WRAC adopted the following recommendation regarding the Rulemaking:

WRAC recognizes and fully supports the protection of all of the Commonwealth’s surface and ground waters. However, from the commentary received at WRAC’s June meeting and today’s discussions, it is clear that the draft Chapter 95 regulation to limit the discharge of total dissolved solids and several other pollutants affects not only the quality and uses of the Commonwealth’s waters but also many different sectors of Pennsylvania’s economy.

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. Among other things, the Department needs to analyze more fully the surface water impacts of existing high TDS discharges, potential water quality impacts from new high TDS discharges, the treatment technologies needed to achieve compliance, and the impacts of the regulation on energy consumption, air emissions, residual waste generation and disposal, mine-land reclamation, and the economic impacts on the development of the Marcellus Shale and other affected sectors of Pennsylvania’s economy.

Rather than proceeding to public notice with a proposed rule, WRAC recommends that the Department work in conjunction with WRAC to form a statewide stakeholders group to analyze the issues and develop appropriate solutions. This approach was very successful in developing the Department’s “Water Quality Antidegradation Implementation Guidance,” and WRAC believes that it can be successful in this instance, too.

In the interim, WRAC encourages the Department to use the full range of regulatory resources at its disposal to ensure protection of the existing and designated uses in the Commonwealth's receiving streams.

The Department rejected WRAC's advice and proceeded with the Rulemaking.

Apparently in an attempt to mask the lack of an actual factual and technical basis for the Proposed Rulemaking, the Department references several unrelated matters. For example, the Department references the presence of certain brominated disinfection by-products ("DBPs") in drinking water systems on the Monongahela River, noting that such compounds may be carcinogens. This reference is misplaced and irrelevant, and simply cannot support the Department's action. According to the U.S. EPA's website, DBPs are:

[F]ormed when disinfectants used in water treatment plants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water. Different disinfectants produce different types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established have been identified in drinking water, including trihalomethanes, haloacetic acids, bromate, and chlorite.

(available at www.epa.gov/enviro/html/icr/gloss_dbp.html#dbp). TDS is not a DBP, nor does it directly contribute to DBP concentrations. Therefore a discussion of DBPs in the Proposed Rulemaking is irrelevant and should not be used to justify an otherwise unsupported rule making.

Similarly, the Department references the "potential impacts to aquatic life from these large TDS discharges" and seeks to justify the Proposed Rulemaking based on those potential impacts. Again, this reference is irrelevant and misplaced. There is no connection between such potential impacts and the numerical Effluent Standards in the Proposed Rulemaking (e.g., 500 mg/l TDS), and in public discussions during the WRAC TDS Stakeholder Subcommittee meetings Department personnel have admitted that the numerical Effluent Standards were not developed based on those potential impacts. Moreover, the Pennsylvania water quality standards already contain a criterion for Osmotic Pressure, which was expressly designed to protect against these very potential impacts. The Department should simply enforce the existing Osmotic Pressure criterion to protect against these potential impacts, rather than using them in an attempt to bolster a standard that has no independent validity.

The Proposed Rulemaking should be withdrawn and the Department should be instructed to develop an appropriate factual and technical basis such that action can be taken that is rationally connected to the perceived harm.

2. The Department Failed to Follow Applicable Law and Its Own Guidance in Concluding that Waters Such as the Monongahela River Are Impaired for Total Dissolved Solids

In the preamble to the Proposed Rulemaking the Department asserts that “[t]he Monongahela River Watershed is being adversely impacted by TDS discharges and many points in the watershed are already impaired, with TDS, sulfates and chlorides as the cause.” However, the Department has ignored the applicable law and its own guidance in reaching these and similar conclusions, and has no supporting administrative record for these conclusions. The Department should be required to withdraw the Proposed Rulemaking and assess the Commonwealth’s waters in accordance with the applicable law and guidance.

First, unlike most water quality criteria in Pennsylvania, the criteria for both TDS and sulfate are intended to apply at the point of all existing or planned potable water supply withdrawals. 25 Pa. Code § 96.3(d). In promulgating this regulation, the Board expressly stated its intent that certain water quality criteria (e.g., TDS and sulfate) apply only at the point of the potable water supply intake, and that “all other criteria are applicable at all points instream where a use is protected.” 30 Pa.B. 6067-6068 (November 18, 2000). The Department appears to have ignored this important distinction in reaching its “impairment” decisions.

Second, the Department has not attempted to conduct a meaningful statistical assessment of the watersheds or perform any type of “segment approach” to the watersheds. Rather, it has merely compared isolated samples to the water quality criteria and concluded that the waters are impaired based on occasional exceedances of the criteria. This overly simplistic approach is contrary to the Department’s own decision rules for assessing potentially impaired water bodies:

DEP’s assessment and listing methodology constitutes the “decision rules” the Department uses when assessing the quality of waters and identifying water bodies that do not meet designated and existing uses.

* * * *

The Department uses chemical water quality data to identify bodies of water where anthropogenic pollutant loads cause violations of water quality standards. Since these decisions rely on limited environmental data, they are subject to error. Recognizing this fact, DEP has adopted a statistical approach to these decisions, which aims to minimize decision errors.

Commonwealth of Pennsylvania, Assessment and Listing Methodology for Integrated Water Quality Monitoring and Assessment Reporting, Clean Water Act Sections 305(b)/303(D) (March 2009), pp. 1 – 2. See, also, Commonwealth of Pennsylvania Assessment and Listing

Methodology for Integrated Water Quality Monitoring and Assessment Reporting, Clean Water Act Sections 305(b)/303(d) (March 2007); *USEPA Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(B) and 314 of the Clean Water Act* (July 29, 2005).

Note, in this regard, that the Department's failure to conform to its own guidance is intentional. For example, in the permit documentation for an NPDES permit that recently was issued for AE's Hatfield's Ferry Power Station, the Department concluded that it does not need to follow the applicable guidance in making these decisions. When confronted with the issue by AE during the public comment period, the Department responded that "[a] statistical analysis does not need to be performed. The data cannot be interpreted in any other manner." Fact Sheet/Statement of Basis for NPDES Permit No. PA0002941-A1 (December 22, 2008), p. 37.

Third, it appears that much, if not most of the TDS data considered by DEP have been generated using an analytical method which is biased and not approved by EPA. Specifically, it appears that DEP has used a method that specifies a sample drying temperature of 105°C (USGS Method I-1749-85), as opposed to the EPA approved 40 C.F.R. Part 136 analytical method that specifies a sample drying temperature of 180°C (USGS Method I-1750-85 or Standard Method 2540 C). This difference may result in over reporting the amount of TDS present in any sample because of excess water weight.

USGS Method I-1749-85 calls for drying at 105°C for two hours, cooling the residue, weighing the residue, and calculating the result. USGS Method I-1750-85 calls for drying the sample at 180°C for two hours, cooling the residue, weighing the residue and calculating the result. Standard Method 2540 C calls for drying at 180°C for at least one hour, cooling the residue, weighing the residue and repeating the drying, cooling and weighing procedure until a constant weight is obtained, and then calculating the result.

The underlying documentation for the methods discusses the significance of the potential difference and the importance of using the correct method. The following is an excerpt from Standard Methods (20th Edition) containing the explanation (emphasis added):

The temperature at which the residue is dried has an important bearing on results, because weight losses due to volatilization of organic matter, mechanically occluded water, water of crystallization, and gases from heat-induced chemical decomposition, as well as weight gains due to oxidation, depend on temperature and time of heating. Each sample requires close attention to desiccation after drying. Minimize opening desiccator because moist air enters. Some samples may be stronger desiccants than those used in the desiccator and may take on water.

Residues dried at 103 to 105°C may retain not only water of crystallization but also some mechanically occluded water.

Loss of CO₂ will result in conversion of bicarbonate to carbonate. Loss of organic matter by volatilization usually will be very slight. Because removal of occluded water is marginal at this temperature, attainment of constant weight may be very slow.

Residues dried at 180 +/- 2°C will lose almost all mechanically occluded water. Some water of crystallization may remain, especially if sulfates are present. Organic matter may be lost by volatilization, but not completely destroyed. Loss of CO₂ results from conversion of bicarbonates to carbonates and carbonates may be decomposed partially to oxides or basic salts. Some chloride and nitrate salts may be lost. In general, evaporating and drying water samples at 180°C yields values for dissolved solids closer to those obtained through summation of individually determined mineral species than the dissolved solids values secured through drying at the lower temperature.

This excerpt clearly states that the temperature at which the residue is dried can skew the results and that residue dried at 103°C to 105°C can retain more water than residue dried at 180°C. As such, the only EPA approved method for TDS analysis requires a drying temperature of 180°C.

It does not appear that any relevant authority supports the use of USGS Method I-1749-85 (TDS determined at 105°C) for assessing compliance with water quality criteria or the secondary drinking water standard for TDS. To the contrary, all of the relevant authorities provide for the use of USGS Method I-1750-85 or Standard Method 2540 C (TDS determined at 180°C).

- 40 CFR §143.4(b) states that “Analysis of ...TDS... to determine compliance under §143.3 [secondary maximum contaminant levels] may be conducted with ... Standard Method 2540 C....”
- EPA’s table *Analytical Methods Recommended for Drinking Water Monitoring of Secondary Contaminants, Revised June 2008*, lists Standard Method 2540 C as the recommended method for TDS.
- DEP’s document *Assessment and Listing Methodology for Integrated Water Quality Monitoring and Reporting, March 2007*, states that for potable water supply use attainment decisions, “use attainment evaluations are conducted through the review of raw (intake) water quality data provided through self-monitoring efforts at drinking water facilities.” As stated above, the method listed at 40 CFR 143.3(b) (secondary drinking water standards) which “may be used” to determine compliance with the secondary drinking water standards is Standard Method 2540 C.

- 40 CFR Part 136 lists Standard Method 2540 C (180°C) and USGS Method I-1750-85 (180°C) as approved methods for NPDES compliance determinations.
- DEP's guidance document for background water quality determinations for NPDES permitting states that "Analytical methods promulgated under 40 CFR Part 136, or other DEP approved test methods must be used where applicable." *Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, Revised.*
- 25 Pa. Code § 91.42 (Analysis of Wastes) states that "in analyzing sewage, industrial wastes and other substances to determine whether their characteristics meet the requirements of this article, the methods and procedures described in the current edition of Standard Methods for the Examination of Water and Wastewater, Public Health Association, Inc, shall be used."

All of the relevant regulatory sources support the use of either Standard Method 2540 C or USGS I-1750-85 for evaluating attainment of TDS water quality criteria or the secondary TDS drinking water standard, not the lower temperature method apparently used by DEP in making its attainment determinations.

3. The Environmental and Economic Costs of the Effluent Standards Will Exceed Any Possible Benefits Associated with Them

The Proposed Rulemaking also is unreasonable and inappropriate because the environmental and economic costs of complying with the Effluent Standards will far exceed any possible benefits associated with them. The Department estimated that the cost to treat discharges to comply with the Effluent Standards "could be on the order of \$0.25 per gallon." The Department did not provide any studies or calculations setting forth how this estimated treatment value was derived or what treatment technology was assumed. As discussed below, even accepting the legitimacy of this estimate, it is misleading and grossly undervalues the adverse economic and environmental impacts that the Proposed Rulemaking would have on Pennsylvania.¹

Industries and public interest groups alike have investigated the treatment options necessary to achieve the numeric Effluent Standards. The available treatment technologies are limited, depending on the characteristics of the discharge and the nature of the industry/source.

¹ The Department's estimate of the "order of \$0.25 per gallon" is itself potentially economically prohibitive. For example, a garden hose running at 4 gpm would discharge over 2,100,000 gallons per year which at DEP's estimate would cost over \$525,000 to treat.

The two most readily available technologies for treating TDS concentrations greater than 2,000 mg/l are reverse osmosis ("RO") and evaporation (with or without crystallization). It is widely agreed that the installation and maintenance of such systems are labor-intensive and costly. In addition, such systems are energy intensive and generate large quantities of residual solid waste (e.g., salt), which in turn require landfilling.

While the Department has uniformly applied one estimated treatment cost to comply with the Effluent Standards, this notion of a "one size fits all" treatment technology is problematic. As such, many interest groups and trade organizations presented their industries' estimated environmental and economic costs to comply with the Effluent Standards, and the associated implementation times. The presentations include the following:

- "The Facts About Monongahela River Water Quality," Allegheny Conference on Community Development, December 2009
- "Marcellus Shale Committee's Response to PADEP's Permitting Strategy for High TDS Wastewater Discharges," Presented to WRAC November 10, 2009
- "Impact Analysis of the High TDS Strategy on the Bituminous Mining Industry," Pennsylvania Coal Association, Presented to WRAC Subcommittee, September 22, 2009 and "Testimony of the Pennsylvania Coal Association Before the PA Environmental Quality Board Regarding Proposed Amendments to 25 PA Code Chapter 95 Wastewater Treatment Requirements, 39 PA Bulletin 6467," Josie Gaskey, December 15, 2009
- "Statement for Pennsylvania Environmental Quality Board Hearing Concerning Proposed Amendments to Chapter 95 Rules – Discharge Standards for Total Dissolved Solids," Pennsylvania Chamber of Business and Industry, December 17, 2009
- "PA Electric Power Generating Industry TDS Issues," Presented to WRAC October 16, 2009
- "Impact Analysis of the Proposed TDS Strategy on the Industry Sector Group," Presented to WRAC October 16, 2009

AE wishes to incorporate these presentations into the public record for the Proposed Rulemaking, to the extent that they already are not part of the record.²

The Electric Power Generation Association's ("EPGA") website lists 64 coal fired electric generating stations in Pennsylvania with a total generation capacity of 27,064 MW. <http://www.epga.org/GeneratingFacilities.html>. If only 15 of these stations were required to comply with the numerical Effluent Standards, EPGA estimates the following economic and environmental costs to comply:

Cost	FGD Wastewater Stream	All Wastewater Streams
Capital Cost	\$1 billion	\$3 - 7.5 billion
O&M Costs	\$70 million/year	\$230 - 600 million/year
Power Consumption	60 MWh	200 - 520 MWh
Waste Solids Production	821,250 tons/year	

The scale of these costs are consistent with the estimates of other affected sectors (e.g., estimated \$1.325 billion in capital costs, \$133 million in annual O&M costs, and an additional 237,000 tons/year of waste solids produced for the bituminous coal industry).

Clearly, the Department failed to adequately consider the significant environmental and economic costs associated with the Proposed Rulemaking.

² It is difficult to accurately predict the economic and environmental costs associated with the Proposed Rulemaking due to the confusing definition of "new source." The Department's vague and potentially very broad definition stands in sharp contrast to the precisely worded and narrowly construed federal definition set forth at 40 C.F.R. §§ 122.2 and 122.29(b). However, under almost any interpretation of "new source" the Proposed Rulemaking will have significant adverse environmental and economic costs. Indeed, the Department already has acted to define modifications of existing permits as "new sources," indicating that the Department intends the economic reach of the rule to be vast.

4. The Proposed Rulemaking Should Be Withdrawn for Further Consideration and, in the Interim, the Department Should Implement Remedies in Potential Problem Areas Using Existing, Well-Established Water Quality Controls

The Department has a number of mechanisms to address TDS, sulfate, and chloride loadings in the Commonwealth's surface waters, any or all of which are more appropriate than the ill-considered Proposed Rulemaking.

a. PERFORM A TMDL ON WATERSHEDS THAT THE DEPARTMENT APPROPRIATELY DEMONSTRATES ARE "IMPAIRED"

Both the Pennsylvania and the Federal regulations contemplate the development of a Total Maximum Daily Load ("TMDL") to address point and non-point sources for impaired surface water segments. See 25 Pa. Code § 96.4 and 40 C.F.R. § 130.7. This approach would allow the Department to equitably allocate existing and new discharges of TDS, sulfate, and/or chloride in a watershed that the Department appropriately demonstrates is impaired. In fact, the Department has extensive experience with TMDLs and is actively developing and implementing them throughout the Commonwealth to address a number of different water quality issues.

b. IMPLEMENT A NON-TMDL WATERSHED-BASED APPROACH

EPA guidance clearly allows the use of watershed-based approaches that are less formal than the TMDL process, even where existing water quality standards may be impaired. Such approaches avoid the time and costs associated with a formal TMDL. "[I]n the absence of a TMDL, permitting authorities have the flexibility to use a watershed approach similar to a TMDL analysis. One such approach is watershed-based permitting, which may be valuable where a TMDL is not available as a tool to implement a TMDL." *NPDES Permit Program Basics, Frequently Asked Questions* (<http://cfpub.epa.gov/npdes/faqs.cfm>). EPA expressly encourages this approach, observing that "permitting authorities are encouraged to consider a watershed-based permitting approach, which allows for the coordinated reissuance of permits with applicable limits throughout a watershed and may expedite implementation of new criteria while lowering administrative burden." *Id.*

Indeed, the Department already has significant experience in developing a watershed-based approach for a multi-state water system. The Chesapeake Bay Watershed has long been impaired for nutrients, and many of its Pennsylvania tributaries are listed as impaired. See, e.g., *2008 Pennsylvania Integrated Water Quality Monitoring and Assessment Report*. Like the TDS and sulfate issues in the Monongahela River and the Susquehanna River, nutrient issues in the Bay are complex, involving point and non-point sources in different states. Pennsylvania,

in cooperation with other states, agreed to implement measures and meet certain long-term reduction goals prior to the deadline for establishing a TMDL in the Chesapeake Bay Watershed. Through studies, the Department determined that point sources contribute only 11 percent of the nitrogen loading and 19 percent of the phosphorus loading delivered to the Bay, with the remainder of the load attributable to non-point sources. Given the disparately low proportion of the loadings attributable to point sources, the Department has focused on management approaches for non-point sources and has recognized that focusing efforts on point sources would not result in significant nutrient reductions, even if the point source loadings were completely eliminated. A similar, holistic watershed-based approach can (and should) be taken for other Commonwealth surface waters facing TDS, sulfate, and/or chloride problems.³

c. CONSIDER OFFSETS OR A TRADING PROGRAM FOR TDS AND SULFATE

The Department could utilize offsets or trading as a means of addressing TDS, sulfate and/or chloride issues. "EPA is supporting innovative approaches linked to developing and implementing TMDLs, such as watershed-based trading. Trading means that pollution sources can sell or barter their ability to reduce pollution with other sources that are unable to reduce their pollutant loads economically. *EPA NPDES Permit Writers Manual*, p. 106. "EPA supports trading in unimpaired waters to maintain water quality standards, as well as in impaired waters. EPA supports both pre-TMDL trading and trading under a TMDL." *NPDES Permit Program Basics, Frequently Asked Questions* (<http://cfpub.epa.gov/npdes/faqs.cfm>). "[W]hen WQBELs cannot be met based on existing water quality standards, dischargers may be able to meet WQBELs based on existing water quality standard through options such as offsets from point and non-point sources (e.g., land based BMPs) and water quality trading and watershed analysis." *Id.*

The Department clearly has a number of existing water quality controls at its disposal, any or all of which would adequately address TDS, sulfate, and/or chloride issues in the

³ AE notes that the estimated capital costs to comply with the Pennsylvania Chesapeake Bay Strategy were \$8.2 billion, which the Department recognized at the time was "roughly equivalent to twice our entire annual budget for all environmental protection programs in the Commonwealth. And it exceeds, by several orders of magnitude, the funds we currently have available, a fact that is acknowledged in the recently published Chesapeake Bay Watershed Blue Ribbon Finance Panel report." *Pennsylvania's Chesapeake Bay Strategy* (December 2004), p. 1. The costs for the Proposed Rulemaking easily could exceed \$8.2 billion, and yet the Department has not devoted anywhere near the level of assessment and resources to the TDS issues that it devoted to the Chesapeake Bay Strategy.

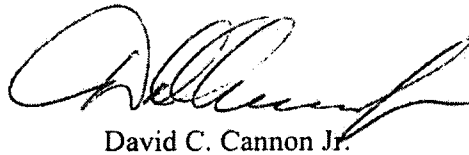
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Commonwealth while an appropriate technically and factually justified long term solution is developed.

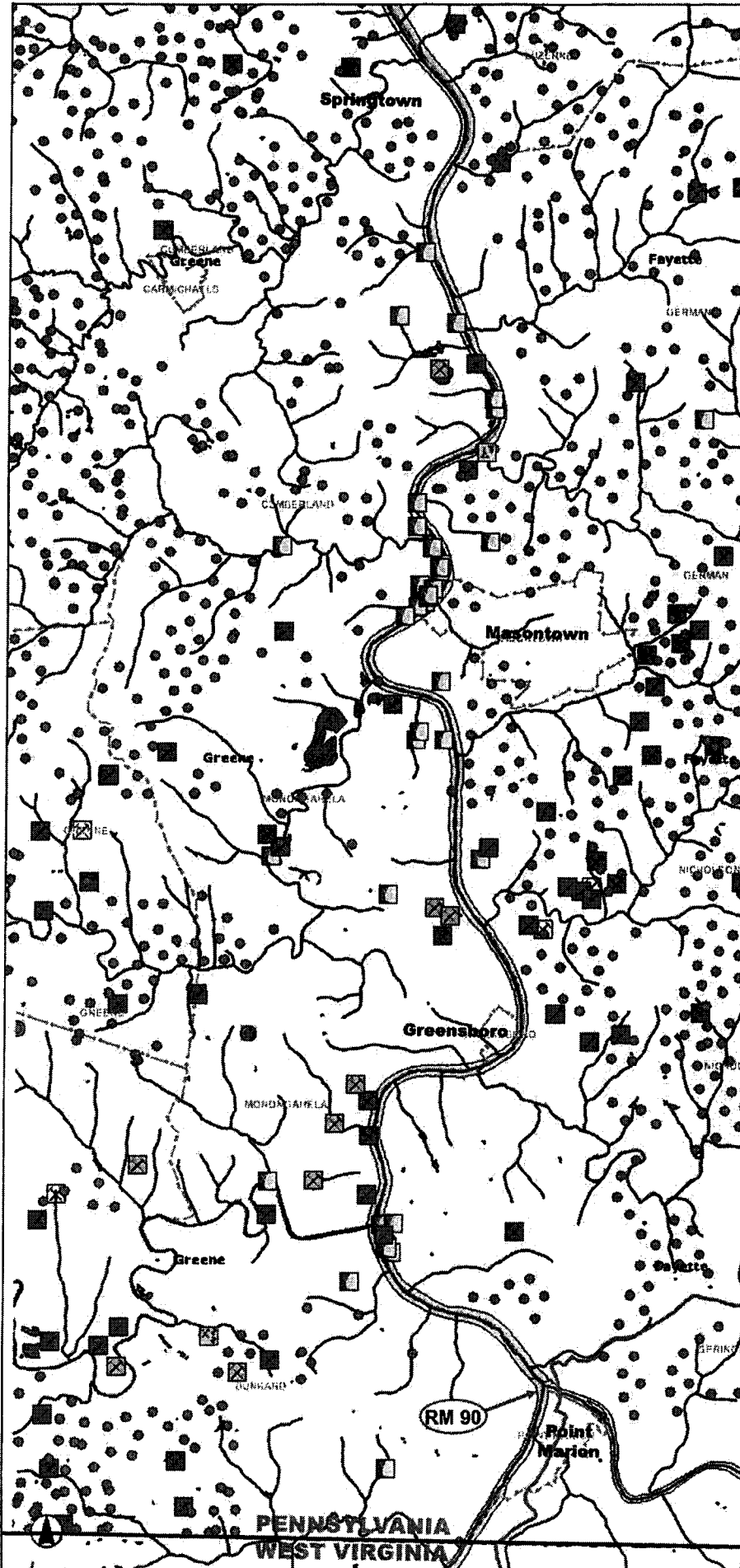
III. Conclusion

For the reasons stated above, AE strongly encourages the Environmental Quality Board to withdraw the Proposed Rulemaking and proceed under the existing regulatory framework designed to address such issues. We appreciate the opportunity to provide these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Cannon Jr.", written in a cursive style.

David C. Cannon Jr.



MONONGAHELA RIVER AND TRIBUTARIES

DISCHARGE POINTS, COAL MINING, MINE DRAINAGE, AND OIL & GAS OPERATIONS

APPROXIMATE RIVER MILES 90 to 72

Discharge Points

- Oil & Gas
- Coal Mining
- Water Pollution Control Facility

Coal Mining

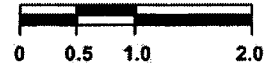
- Mineral Preparation Plant
- Post Mining Treatment
- Refuse Disposal Facility
- Refuse Reprocessing
- Surface Mine
- Underground Mine
- Coal Pillar

Mine Drainage

- Coal Refuse Pile Reclamation
- Deep Mine Reclamation
- Internal Monitoring Point
- Mine Drainage Treatment
- Oil & Gas Reclamation
- Surface Mine Reclamation

Oil & Gas

- Land Application
- Oil & Gas Well
- Pit
- Coal Pillar



SCALE (MILES)

AMENDOLA ENGINEERING INC.

DWG NO. AEI-2008-12-010

DECEMBER 12, 2008

SHEET 1 OF 4

PENNSYLVANIA WEST VIRGINIA

MONONGAHELA RIVER AND TRIBUTARIES

**DISCHARGE POINTS,
COAL MINING,
MINE DRAINAGE, AND
OIL & GAS OPERATIONS**

**APPROXIMATE
RIVER MILES
72 to 40**

Discharge Points

- Oil & Gas
- Coal Mining
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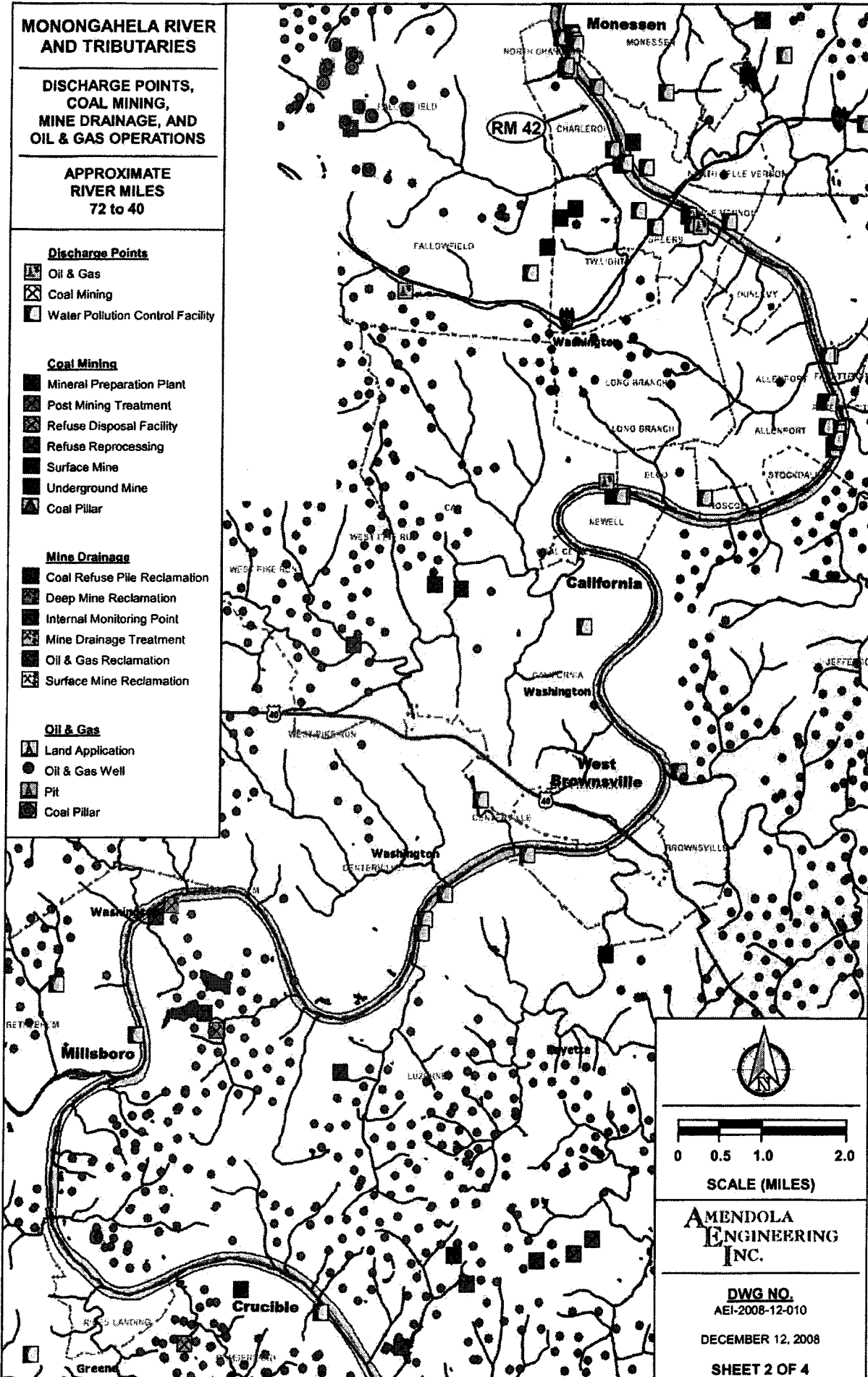
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- Pit
- Coal Pillar



SCALE (MILES)

**AMENDOLA
ENGINEERING
INC.**

**DWG NO.
AEI-2008-12-010**

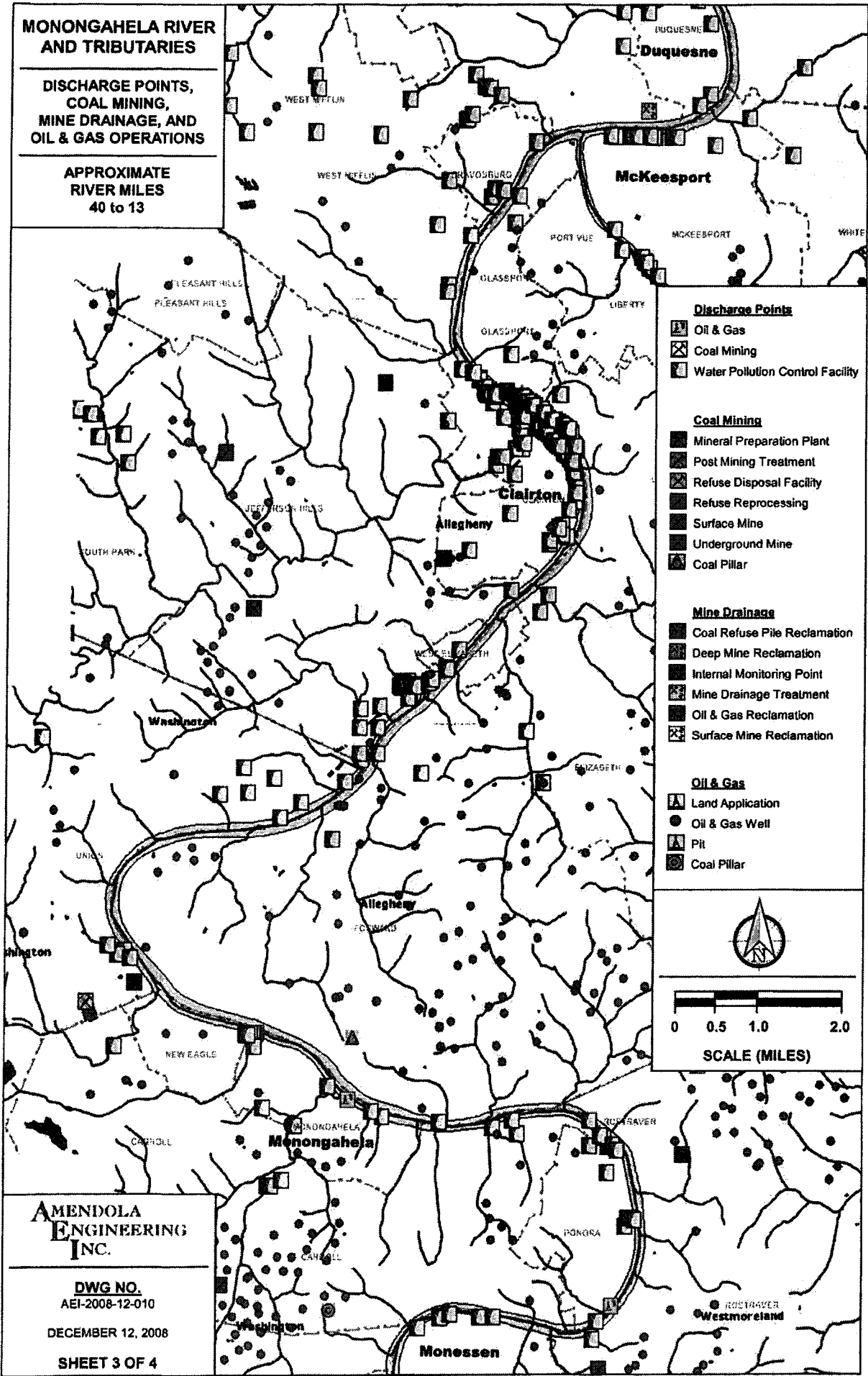
DECEMBER 12, 2008

SHEET 2 OF 4

MONONGAHELA RIVER AND TRIBUTARIES

**DISCHARGE POINTS,
COAL MINING,
MINE DRAINAGE, AND
OIL & GAS OPERATIONS**

**APPROXIMATE
RIVER MILES
40 to 13**



Discharge Points

- Oil & Gas
- Coal Mining
- Water Pollution Control Facility

Coal Mining

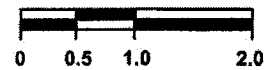
- Mineral Preparation Plant
- Post Mining Treatment
- Refuse Disposal Facility
- Refuse Reprocessing
- Surface Mine
- Underground Mine
- Coal Pillar

Mine Drainage

- Coal Refuse Pile Reclamation
- Deep Mine Reclamation
- Internal Monitoring Point
- Mine Drainage Treatment
- Oil & Gas Reclamation
- Surface Mine Reclamation

Oil & Gas

- Land Application
- Oil & Gas Well
- Pit
- Coal Pillar



SCALE (MILES)

**AMENDOLA
ENGINEERING
INC.**

**DWG NO.
AEI-2008-12-010**

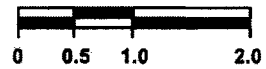
DECEMBER 12, 2008

SHEET 3 OF 4

MONONGAHELA RIVER AND TRIBUTARIES

DISCHARGE POINTS,
COAL MINING,
MINE DRAINAGE, AND
OIL & GAS OPERATIONS

APPROXIMATE
RIVER MILES
13 to 0



SCALE (MILES)

Discharge Points

- Oil & Gas
- Coal Mining
- Water Pollution Control Facility

Coal Mining

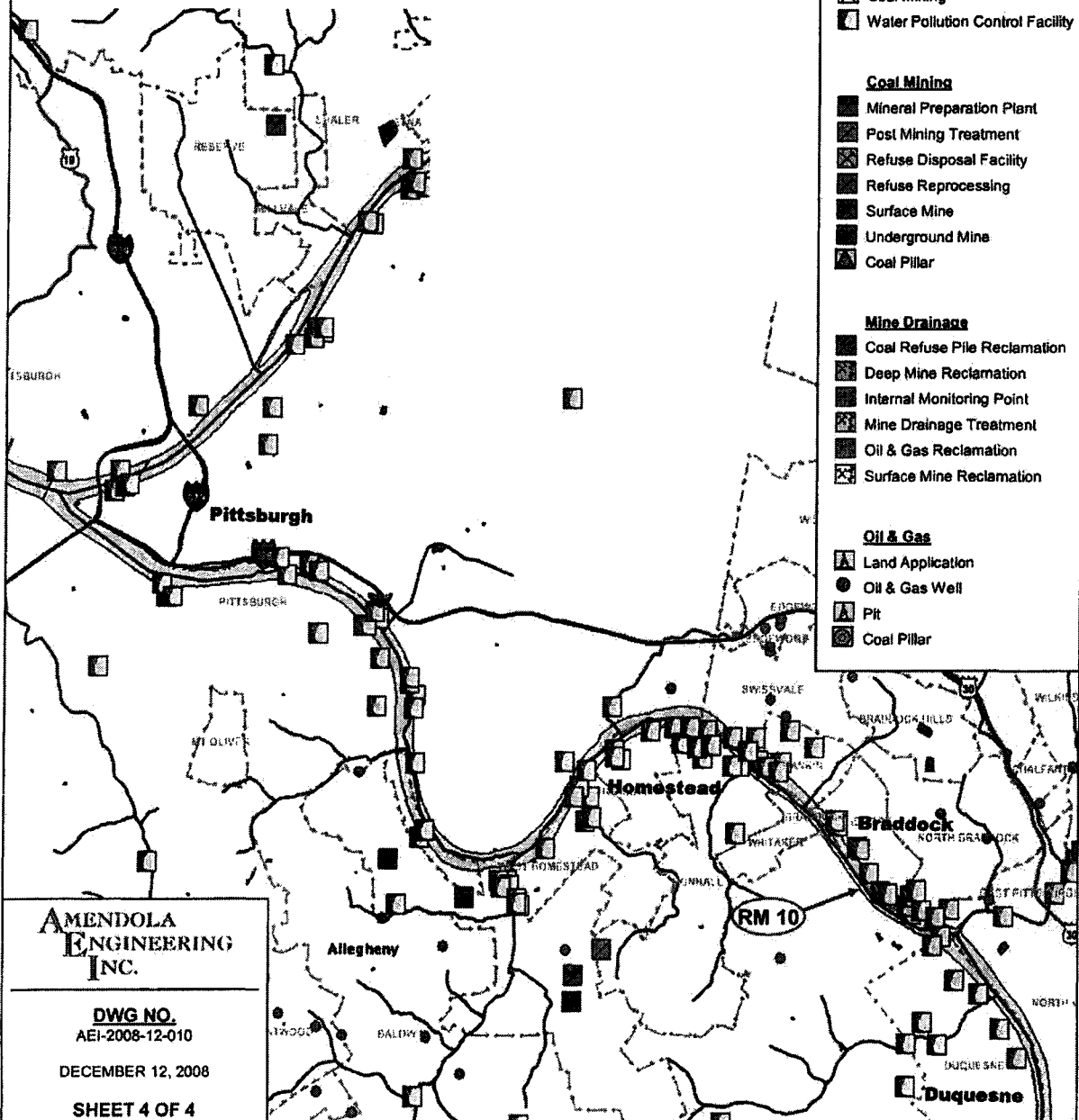
- Mineral Preparation Plant
- Post Mining Treatment
- Refuse Disposal Facility
- Refuse Reprocessing
- Surface Mine
- Underground Mine
- Coal Pillar

Mine Drainage

- Coal Refuse Pile Reclamation
- Deep Mine Reclamation
- Internal Monitoring Point
- Mine Drainage Treatment
- Oil & Gas Reclamation
- Surface Mine Reclamation

Oil & Gas

- Land Application
- Oil & Gas Well
- Pit
- Coal Pillar



AMENDOLA
ENGINEERING
INC.

DWG NO.
AEI-2008-12-010
DECEMBER 12, 2008
SHEET 4 OF 4

EXHIBIT B

Monongahela River Chloride Data October - December 2008

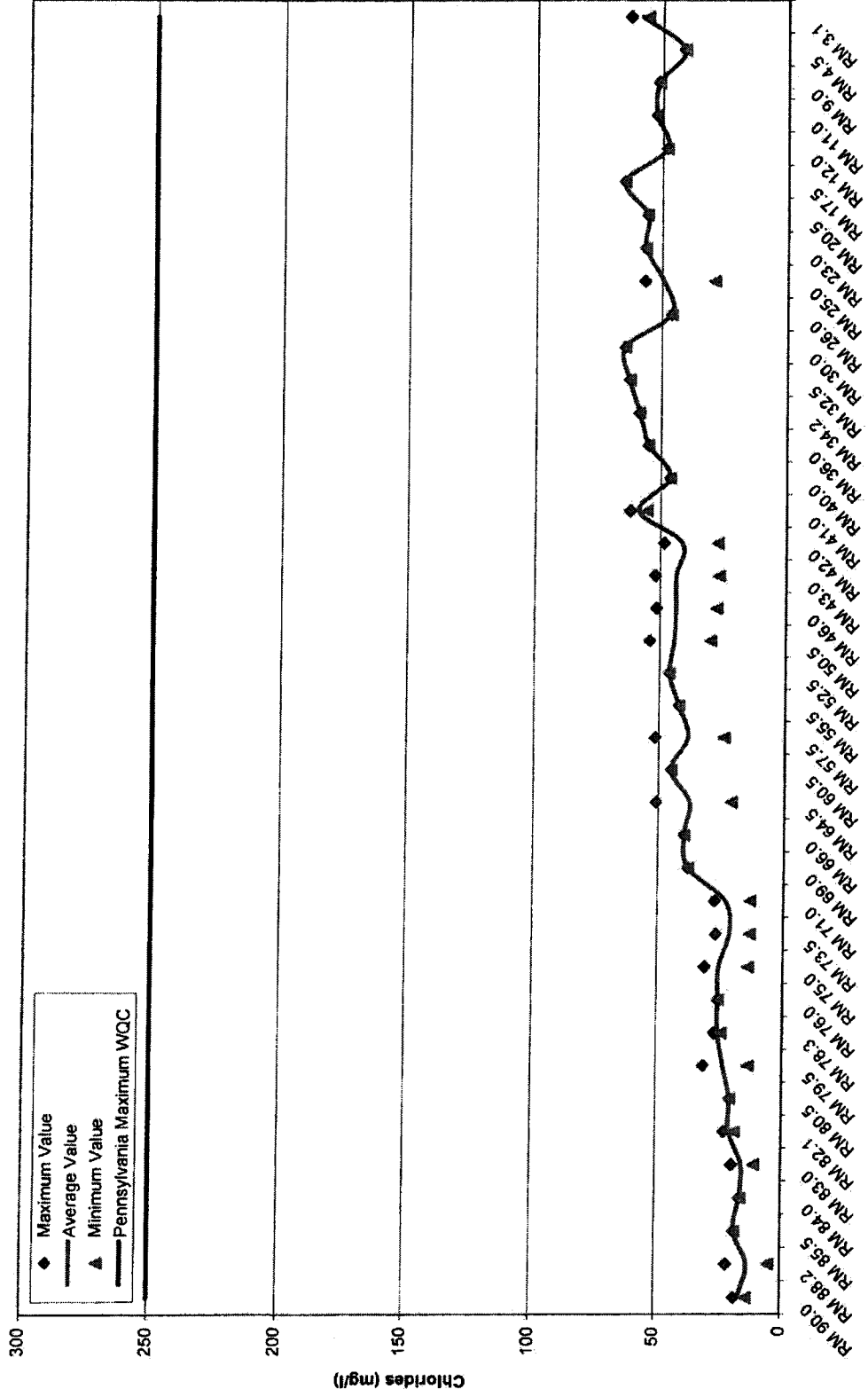
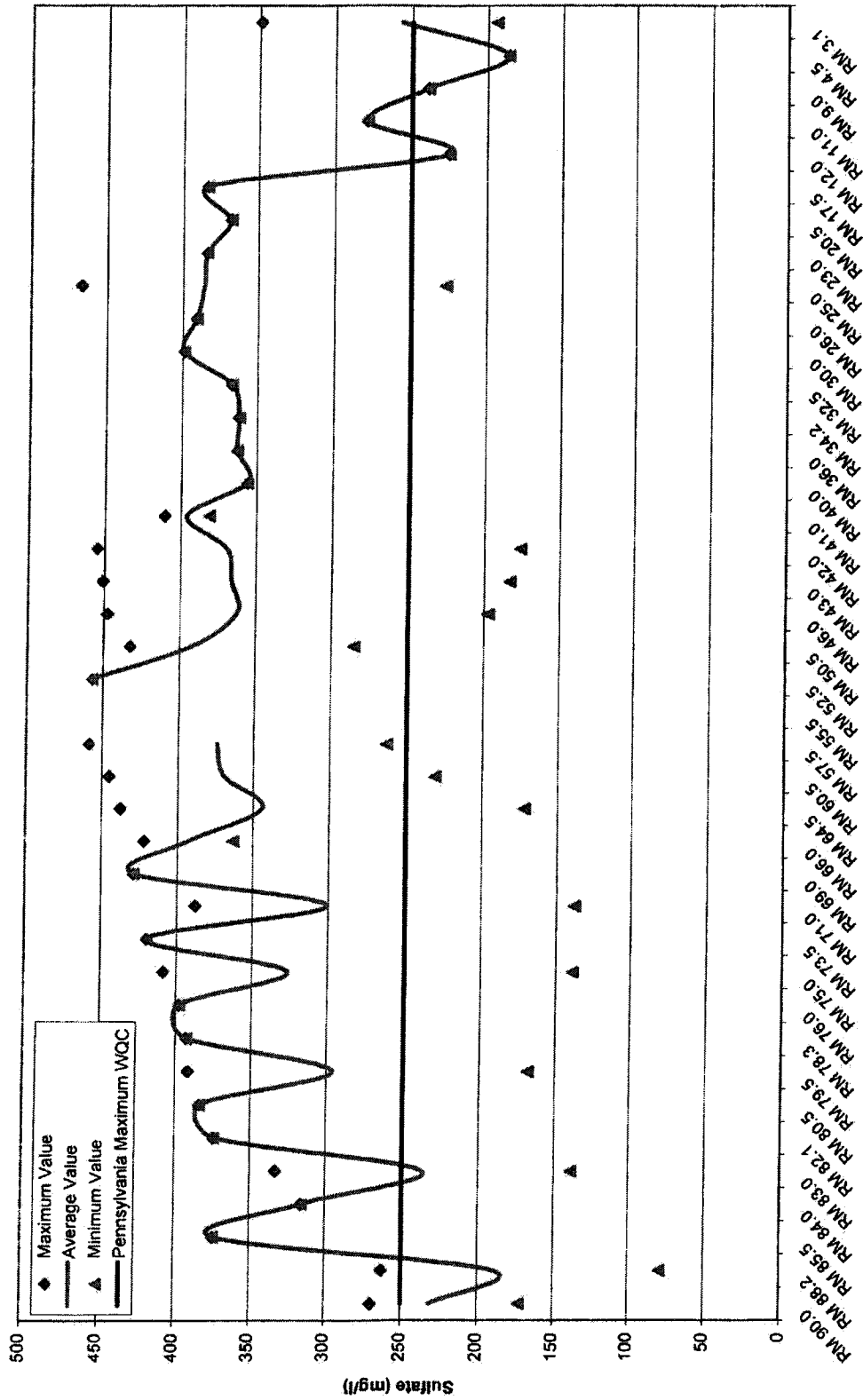


EXHIBIT C

Monongahela River Sulfate Data
 October - December 2008



Allegheny Energy, Inc.
Comments to Proposed Rulemaking to Amend 25 Pa. Code Chapter 95
One Page Summary
February 11, 2010

The Proposed Rulemaking is flawed and lacks the support of a robust administrative record. It should be withdrawn for a number of reasons, including without limitation the following:

1. There Is No Rational Nexus between the Proposed Rulemaking and the Supposed Harm

The Department has not identified the sources of the TDS and related constituents in the Commonwealth's waters, and it therefore cannot know whether the controls on "new sources of high-TDS wastewaters" will address the perceived problem. Indeed, the Proposed Rulemaking ignores the thousands of existing municipal and industrial point source discharges and non-traditional point and non-point source discharges, many of which are known to discharge elevated levels of TDS, sulfate, and chlorides. DEP has made no effort to assess the contribution of these sources to the perceived harm. The sparse preamble to the Proposed Rulemaking lacks a meaningful factual or technical analysis. Given the enormous environmental and economic consequences of the Proposed Rulemaking, the DEP's analysis and technical support are inadequate.

2. The Department Failed to Follow Applicable Law and Its Own Guidance in Concluding that Waters Such as the Monongahela River Are Impaired for Total Dissolved Solids

The DEP has not attempted to conduct a meaningful statistical assessment of the watersheds or perform any type of "segment approach" for the watersheds. Rather, it has merely compared isolated samples to the water quality criteria and concluded that the waters are impaired based on occasional exceedances of the criteria. This overly simplistic approach is contrary to the applicable law and DEP's own decision rules for assessing potentially impaired water bodies.

3. The Environmental and Economic Costs of the Effluent Standards Will Exceed Any Possible Benefits Associated with Them

The DEP's estimate of the "order of \$0.25 per gallon" is misleading and itself potentially economically prohibitive. Submissions from various affected sectors estimate an economic cost that could be in the billions of dollars, and will have significant environmental costs in the forms of dramatically increased energy demand and solid waste generation. Clearly, the DEP failed to adequately consider the significant environmental and economic costs associated with the Proposed Rulemaking.

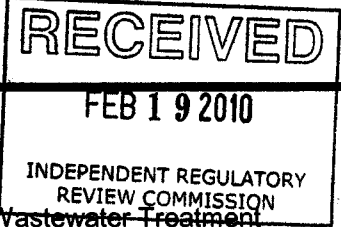
4. The Proposed Rulemaking Should Be Withdrawn for Further Consideration and, in the Interim, the Department Should Implement Remedies in Potential Problem Areas Using Existing, Well-Established Water Quality Controls

The DEP has a number of mechanisms to address TDS, sulfate, and chloride loadings in the Commonwealth's surface waters:

- a. Perform a TMDL on watersheds that the DEP appropriately demonstrates are impaired
- b. Implement a non-TMDL watershed-based approach
- c. Consider offsets or a trading program for TDS, chlorides, and sulfate

For these reasons, Allegheny Energy, Inc. strongly encourages the EQB to withdraw the Proposed Rulemaking and proceed under the existing regulatory framework designed to address such issues.

2806



From: Cain, Randy D. [RCAIN2@alleghenyenergy.com]
Sent: Thursday, February 11, 2010 2:47 PM
To: EP, RegComments
Subject: Proposed Rulemaking to Amend 25 Pa. Code Chapter 95 Wastewater Treatment Requirements
Attachments: AE Comments_Ch95.pdf; AE_Ch95 Comments_1 page sum.pdf

Dear Members of the Environmental Quality Board –

Please find attached (pdf) comments by Allegheny Energy on the above captioned proposed rulemaking and a one page summary of the comments.

Regards,

Randy Cain
Allegheny Energy
800 Cabin Hill Drive
Greensburg, PA 15601
phone: 724-838-6004
fax: 724-830-7711

<<AE Comments_Ch95.pdf>> <<AE_Ch95 Comments_1 page sum.pdf>>