



2806

June 7, 2010

Independent Regulatory Review Commission
333 Market Street, 14th Floor
Harrisburg, PA 17101

Re: Pennsylvania Environmental Quality Board, Proposed Final Form Amendments to 25 PA code Chapter 95, Wastewater Treatment Requirements, IRRC No. 2806, Reg. No. 7-446

Dear Commissioners:

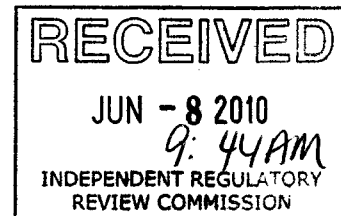
Please find attached the Marcellus Shale Coalition's comments submitted for your upcoming hearing on June 17, 2010, including the following documents:

- Comments to the Independent Regulatory Review Commission from the Marcellus Shale Coalition on 25 Pa. Code § 95.10
- Benchmarking Total Dissolved Solids (TDS) standards across the United States
- Unanswered Implementation Questions, June 2010
- April 27, 2010 letter to Deputy Secretary John Hines with associated comments to DEP's revised draft of 25 PA code Chapter 95. Despite the fact that the rule was significantly modified after the public comment period, the MSC provided our comments to the significantly modified version even though no additional public comment period was afforded.
- Data on TDS contained in well-known bottled water product.

Our organization is focused on the environmentally sound, sustainable growth of Marcellus Shale development. To that end, we are committed to working with regulatory agencies and other stakeholders to modernize, where appropriate, existing rules and regulations to address Marcellus development – and we have demonstrated that willingness on multiple occasions. We also recognize that workable regulations must include a foundation in science and must create transparency and predictability for the regulated community and the public. Unfortunately, the current Chapter 95 proposal does not yet meet those standards.

Sincerely,

Kathryn Klaber
President and Executive Director





**Comments to the Independent Regulatory Review Commission
from the Marcellus Shale Coalition
on 25 Pa. Code § 95.10
June 1, 2010**

The Environmental Quality Board's ("EQB") proposed amendment of 25 Pa. Code § 95.10, which would establish an end-of-pipe discharge limitation of 500 mg/l for total dissolved solids ("TDS"), fails to comply with the following criteria contained in the Regulatory Review Act at 71 P.S. § 745.5b and therefore should be disapproved by the Independent Regulatory Review Commission ("IRRC"):

I. Whether the agency has statutory authority to implement the regulation (71 P.S. § 745.5b(a)).

By developing specific end-of-pipe discharge limitations for "operations with wastewater resulting from fracturing, production, field exploration, drilling or completion of natural gas wells," the EQB has impermissibly developed technology based effluent limitations for an industrial category. In doing so, the EQB has failed to follow its own rules and the applicable statutory mandates. The relevant regulatory provision, 25 Pa. Code § 92.2d, entitled "Technology-based standards" states that for industrial categories where the EPA has not promulgated effluent limitation guidelines, the Department of Environmental Protection ("DEP") can develop technology-based limitations established in accordance with 40 CFR § 125.3. That regulation specifies the elements and criteria that must be considered when developing technology requirements (e.g., the age of the equipment, the process employed, non water quality environmental impact, the comparison between the cost and the level of reduction). The EQB has not followed these requirements.

II. Economic and fiscal impacts of the regulation on the public and private sector (71 P.S. § 745.5b(b)(1)).

As the Independent Regulatory Review Commission ("IRRC") pointed out in its comments to EQB's previous proposal (40 Pa.B. 1711), the EQB failed to conduct a study considering the "immediate and long-range economic impact upon the Commonwealth and its citizens" resulting from the proposed regulations.

- In its previous comments, the IRRC noted that compliance with the proposed regulation would require a significant investment in upfront capital costs for new technology and equipment, as well as significant costs for ongoing operation and maintenance, treatment, transportation, and disposal of residual wastes produced via TDS treatment processes. IRRC also pointed out that the EQB provided no detailed information regarding the potential benefits of the proposed regulation or any background information on how the EQB and DEP developed their estimates of the costs of this proposed regulation.
- These regulations, if finalized in their current form, will have an adverse impact on continuing Marcellus Shale development and an adverse impact on the

associated job growth. By the end of 2010, Penn State researchers estimate that 88,000 new jobs will have been created in the state through the development of the Marcellus Shale (T. Considine, et al., "The Economic Impacts of the Pennsylvania Marcellus Shale Natural Gas Play: An Update," Pennsylvania State University, May 24, 2010, p. 19). By 2020, Marcellus Shale development is expected to result in nearly 212,000 jobs. Still, the Penn State researchers offer a cautionary warning that future growth depends on Pennsylvania maintaining its competitive position. An imposition of increased regulation could "induce a redirection of investment flows to other shale plays [outside Pennsylvania]." (p. 3).

- No other state imposes a 500 mg/l (or lower) TDS end-of-pipe standard on discharges from public, commercial and captive centralized treatment facilities for the oil and natural gas industry. A compilation of standards for TDS promulgated by states across the country is attached. The new end-of-pipe limit for TDS that the EQB is proposing is unique to Pennsylvania and will put Pennsylvania oil and natural gas producers at a competitive disadvantage, thereby causing investment to shift to other States and other parts of the World.
- In addition to the competitive disadvantage for the oil and natural gas industry, there will be a similar disadvantage for related developing industries, including those using the produced natural gas supply and those industries who would locate in Pennsylvania to utilize natural gas produced from the Marcellus Shale.

III. Protection of the public health, safety and welfare (71 P.S. § 745.5b(b)(2)).

As was pointed out previously by IRRRC, DEP's "Permitting Strategy for High Total Dissolved Solids (TDS) Wastewater Discharges" (April 11, 2009) states that no reliable data currently exists supporting the statement that water with high TDS levels has the potential to cause health effects. The TDS standard that the EQB seeks to impose correlates to a secondary drinking water standard for public water supplies for TDS that is based on aesthetic considerations. By way of comparison, an evaluation of a popular brand of mineral water widely sold in the United States and served in a broad spectrum of restaurants shows that such mineral water contains approximately twice as much TDS as would be allowed for discharges of wastewater from the oil and gas industry. Evidence of this fact is included in the attachment.

- In fact, this proposed rule has the potential to cause harmful impacts on the environment which would outweigh the benefits.
 - Depending upon the implementation of the new rule, increased truck usage may be anticipated along with the associated environmental, health and safety impacts (e.g., fuel use, air emissions, road impacts, congestion, and highway and road safety).
 - The technology for treating TDS requires use of tremendous amounts of energy and the use of these energy resources will lead to increased pollution and emissions of greenhouse gases.

- Treatment of large volumes of water to remove TDS will result in the creation of an enormous amount of solid salt that will require disposal in landfills. The EQB appears to have completely ignored the issues associated with managing treatment residuals.
- The EQB has failed to consider the overall impacts that would result from imposition of this new end-of-pipe discharge limitation on the oil and natural gas industry.

IV. Clarity, feasibility, reasonableness and need for the regulation (71 P.S. § 745.5b(b)(3)).

The proposed regulations are fraught with ambiguity, inconsistencies and lack of clarity. Key terms are not defined. Critical components of the regulatory approach have been consigned to the future development of “guidance” documents. An extensive list of questions that focus on the wide array of drafting difficulties that are evident in the proposed regulations are attached. The questions go to core elements of the proposed regulations and underscore the very real problems that the regulated community will have in attempting to determine what is required to achieve compliance with the regulations. Proceeding with finalizing proposed regulations that cannot be readily understood (setting aside disagreements about basic policy considerations) is clearly not in the best interests of the Commonwealth.

Moreover, the EQB failed to perform an environmental impact study to determine the need for this proposed regulation. IRRC noted in its previous comments that there are serious questions regarding the extent of the problem and the need for this regulation.

- The new TDS standard proposed in 25 Pa. Code § 95.10 does not solve the asserted problem – a lack of assimilative capacity for TDS in Pennsylvania’s rivers and streams. For example, the TDS condition on the Monongahela River was not caused by the oil and gas industry. A study conducted by Tetra Tech NUS, Inc. (“Tetra Tech”) from June 2007 to October 21, 2008, evaluated the potential causes of high TDS detected in the Monongahela River. It found that drought conditions in the Monongahela River basin in 2008 decreased the amount of water and increased concentrations of TDS. Additionally, a long-term statistical trend analysis indicated that there is no statistically significant difference in the mass loadings of TDS in the Monongahela River over the last seven years.
- The previous IRRC comments required that the EQB document the extent and severity of the problem on the Monongahela River “before imposing a new and potentially costly regulation on the businesses and industries of Pennsylvania,” and to include that report with the submission of the final form regulation.
- The elevated levels of TDS found in the Monongahela River in 2008 would still have occurred and the exceedances of the current 500 mg/l in stream TDS standard at public water supply intakes would have occurred on exactly the same dates and lasted just as long even if the oil and natural gas industry did not exist.

Thus, the proposed end-of-pipe standard does not and cannot correct the problem posited by the EQB. On the other hand, the oil and natural gas industry is specifically singled out to be subject to the new TDS standard.

- The EQB did not give adequate consideration to an implementation schedule for this proposed regulation. The proposed timeframe of implementation by January 2011 will be impossible to achieve. Given the necessary design, pilot testing, permitting, equipment lead time, and construction steps, a minimum of a 36 month timeframe is involved in development of TDS treatment facilities capable of meeting a 500 mg/l end-of-pipe discharge limit.
- The EQB has compounded the problems associated with an end-of-pipe discharge limit for TDS in wastewater from the oil and gas industry by mandating that wastewater be treated to achieve this standard before being discharged to a publicly owned treatment works ("POTW"). Not only does this approach eliminate treatment capacity that could be effectively used, it will eliminate a potential source of revenue for POTWs that are attempting to fund capital improvements to meet a variety of new regulatory mandates.

The EQB failed to explain why a limit of 500 mg/l for the natural gas industry is appropriate and reasonable when all other dischargers are given a 2000 mg/l limit. The regulation as proposed is facially discriminatory with respect to the natural gas industry. The Board states that the 2000 mg/l limit, applicable to all other dischargers, is appropriate because "... in the Department's Best Professional Judgment [it] assures that adequate in stream dilution will be available to prevent exceeding the water quality standard" (Order p. 14). The Board fails to explain why that same conclusion is not applicable to waste water from the natural gas industry. In fact, the Board in making its cost estimates concludes that the industry will discharge 4 million gallons per day of waste water (Order p.12). There is simply no explanation as to why this small fraction of all the TDS-containing waste water being discharged from all sources must be held to a standard that is 4 times more stringent.

There is no rational basis to impose an end-of-pipe limit for TDS on the natural gas industry. The natural gas industry supports implementation of appropriate controls to ensure water quality is protected. The Marcellus Shale industry is recycling the majority of its produced waters and is not a significant contributor to the TDS assimilative capacity problem, however. The Marcellus Shale industry plans to continue its proactive efforts and to be good stewards of the environment. The approach that the EQB has taken in developing the proposed regulations is fundamentally flawed. Better solutions exist to achieve the stated objectives of the EQB and DEP in protecting water quality in the Commonwealth's surface water bodies while harmonizing the proposed regulations with the existing regulatory framework that has been developed under the federal Clean Water Act and the Pennsylvania Clean Streams Law.



Benchmarking States' Total Dissolved Solids (TDS) Water Quality Standards, June 2010

State	In Stream	End of Pipe
Alabama	NA	NA
Alaska	1000 ¹ /500 ⁵ /1000 ²	NA
Arizona	Site specific	NA
Arkansas	500 ³	NA
California	Site specific	NA
Colorado	NA	NA
Connecticut	NA	NA
Delaware	NA	NA
Florida	NA	NA
Georgia	NA	NA
Hawaii	NA	NA
Idaho	NA	NA
Illinois	1500 ¹ /500 ⁴	NA
Indiana	500 ³	NA
Iowa	1000 ³	NA
Kansas	NA	NA
Kentucky	250 ⁴	NA
Louisiana	500 ³	NA
Maine	NA	NA
Maryland	500 ⁴	NA
Massachusetts	NA	NA
Michigan	750 (one time) / 500 (mon. avg.) ³	NA
Minnesota	500 ⁴ /500 ⁵	NA
Mississippi	1500 ¹ /500 ⁴	NA
Missouri	NA	NA
Montana	NA	NA
Nebraska	500 ⁴ (ground water only)	NA
Nevada	500 ⁵	NA
New Hampshire	500 ⁴	NA
New Jersey	500 ³	NA
New Mexico	Site specific (500 to 2,000) ³	NA
New York	200/500 ⁴	NA
North Carolina	500 ⁴	NA
North Dakota	NA	NA
Ohio	1500 ⁴	NA
Oklahoma	700 ²	NA
Oregon	Basin Specific (100 mg/l is lowest) ³	NA
Pennsylvania	750/500 ¹	Proposed
Rhode Island	NA	NA
South Carolina	NA	NA
South Dakota	2,000(average)/3,500(max) ¹ 1,000(average)/1,750(max) ³	NA
Tennessee	500 ⁴ /500 ⁵	NA
Texas	By Segment (lowest is 400 ¹ /200 ⁴)	NA
Utah	1,450 ³ /1,200 ²	NA
Vermont	NA	NA
Virginia	500 ³ /500 ⁴	NA
Washington	NA	NA
West Virginia	NA	NA
Wisconsin	NA	NA
Wyoming	Site specific	NA

End notes:

¹ Aquatic Life

² Agriculture

³ General

⁴ Human Health/Drinking Water

⁵ Miscellaneous



PROPOSED AMENDMENTS TO 25 PA. CODE CHAPTER 95
Unanswered implementation questions
June 2010

1. The proposed regulations refer to “mass loadings of total dissolved solids” but contain no definition or explanation of what this term means. How is this term to be understood by either the regulated community or PADEP?
2. The proposed regulations refer to “new and expanding mass loadings of TDS.” Does a loading of TDS need to be both “new” and “expanding” to be covered by this term? Is a “new” loading which is not an “expanding” loading covered? How is an “expanding” loading supposed to be measured?
3. Section 95.10(a)(1) of the proposed regulations indicates that “maximum daily discharge loads of TDS or specific conductivity levels that were authorized by the Department” prior to the effective date of the regulations are considered “existing mass loadings by the Department.” What type of authorization by the Department is necessary to meet this requirement? Are discharges that are subject to an exemption covered? Are discharges that are covered by a general permit covered? How does one determine what is the “maximum daily discharge loads of TDS?” How does one convert authorized specific conductivity levels to TDS loads?
4. Section 95.10(a)(1)(i) of the proposed regulations appears to allow relocating or combining discharge points without constituting a “new or expanding mass loading unless total mass loadings are increased.” Does this mean that if total mass loadings are increased (however that term is defined), the relocated or combined discharge points are subject to new treatment standards? If not, why is this issue not addressed as in Section 95.10(a)(1)(ii)? Can discharge points be separated (i.e., one outfall becomes two smaller outfalls) and fall within the exemption?
5. Section 95.10(a)(1)(ii) of the proposed regulations purports to cover POTWs and industrial waste treatment facilities. Are there any forms of wastewater treatment facilities that do not fall in these two categories? Do these categories cover small privately-owned sewage treatment facilities? Do these categories cover captive wastewater treatment facilities? If the intent is to cover all existing wastewater facilities, should a catch-all provision be added?
6. Section 95.10(a)(1)(ii) of the proposed regulations requires covered POTWs and industrial waste treatment facilities to be authorized “under permits authorizing the acceptance, treatment and discharge of TDS.” Does this include permits that do not mention TDS? What is sufficient to meet the standard purportedly described in the regulatory provision?
7. Section 95.10(a)(1)(ii) of the proposed regulations indicates that the “net increase in TDS mass loadings” from POTWs and industrial waste treatment facilities will be considered a new and expanding mass loading loading of TDS. How is the net increase to be determined? What discharge standards

will apply? How will those discharge standards be calculated if existing flows and “the net increase” are discharged through the same discharge point? Will permit standards have to be amended any time that there is an additional flow that represents a “net increase.”

8. Section 95.10(a)(5) of the proposed regulations exempts discharges from erosion and sediment control facilities used at surface mining activities. Why are discharges from other types of erosion and sediment control facilities not covered?
9. Section 95.10(a)(7) of the proposed regulations covers new and expanding discharge loadings of TDS equal to or less than 5,000 pounds per day? Is this provision source specific or facility specific? Can a POTW accept small TDS loads from multiple customers or does the POTW get a single one-time exemption of 5,000 pounds per day? Does the same approach apply to non-POTWs?
10. Section 95.10(b) of the proposed regulations includes a broad introductory provision that states that “operations with wastewater resulting from fracturing, production, field exploration, drilling or completion of natural gas wells must comply with the following requirements [i.e., the requirements listed in Section 95.10(b)].” Does this provision include all wastewater resulting from fracturing, production, field exploration, drilling or completion of natural gas wells? Is this provision to be read literally? Are existing wastewater discharges associated with natural gas wells covered under Section 95.10(a) or subject to Section 95.10(b)?
11. Section 95.10(b)(1) of the proposed regulations states that “except as provided in subsection (3) [describing requirements for new and expanding treated discharges of wastewater], there may be no discharge of wastewater into waters of this Commonwealth from any source associated with fracturing, production, field exploration, drilling or well completion of natural gas wells.” How does PADEP currently allow wastewater from fracturing, production, field exploration, drilling or well completion of natural gas wells to be managed? Does this provision result in changes to the current approach for existing discharges? If so, how? If not, should the provision be read literally? Does it apply to existing discharges (i.e., wastewater not covered by Section 95.10(b)(3))? How does PADEP intend to implement this provision?
12. Section 95.10(b)(2) of the proposed regulations imposes obligations on natural gas well operators to develop source reduction strategies. The source reduction strategies must identify methods and procedures that the operator will use to utilize flow back or production fluids for fracturing other natural gas wells or for other beneficial uses approved under 25 Pa. Code Chapter 287 (relating to residual waste management). Is this provision intended to preclude other avenues of reusing or recycling flow back or production fluid? Should the regulations allow all legally available means to recycle or reuse flow back or production fluid?

13. Section 95.10(b)(2)(i) of the proposed regulations requires that each source reduction strategy include “a complete characterization of the operator’s wastewater stream including chemical analysis, TDS concentrations and monthly generation rate of flowback and production fluid at each natural gas well.” Is the qualifier “at each natural gas well” to be read as applying to the “monthly generation rate of flowback and production fluid” alone or is it to be read to apply to requirements for chemical analysis and TDS concentrations? If the former, can the provision be clarified? If the latter, how are these requirements to be practicably implemented, given the manner in which well drilling takes place?
14. Section 95.10(b)(3) of the proposed regulations mandates that “new and expanding treated discharges of wastewater resulting from fracturing, production, field exploration, drilling, or well completion of natural gas wells” must meet a series of stringent requirements. What is a “new and expanding treated discharge of wastewater?” How is it different than a new and expanding mass loading of TDS?
15. Section 95.10(b)(3)(i) of the proposed regulations requires that covered new and expanding treated discharges of wastewater only be discharged from centralized waste treatment facilities (“CWTs”) as defined in 40 C.F.R. § 437.2(c). How many CWTs exist in Pennsylvania? Would any industrial waste treatment facility as described in Section 95.10(a)(1)(ii) of the proposed regulations qualify as a CWT? If CWTs are a subset of industrial waste treatment facilities, what distinction exists? Why use different terminology in two different sections of the same regulation.
16. Section 95.10(b)(3)(ii) of the proposed regulations requires that covered new and expanding treated discharges of wastewater may not be discharged to POTWs unless the wastewater has been pretreated in a CWT to stringent end-of-pipe standards (discussed below). What impact will this requirement have on eliminating sources of revenue for POTWs?
17. Section 95.10(b)(3)(iii) of the proposed regulations requires that covered new and expanding treated discharges of wastewater discharged from CWTs must meet stringent end-of-pipe discharge limits including a standard of 500 mg/l for TDS. What is the basis for this standard? Does TDS analysis distinguish between sources of TDS or is TDS a uniform metric across all sources of wastewater? Why is the TDS treatment standard that is being imposed on wastewater from the natural gas industry significantly different than the treatment standard for wastewater from any other source in Pennsylvania?



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April 27, 2010

VIA ELECTRONIC MAIL

The Honorable John T. Hines
Deputy Secretary
Water Management
Pennsylvania Department of Environmental Protection
16th Floor
Rachel Carson Office Building
400 Market Street
Harrisburg, PA 17101

Re: Proposed Amendments to 25 Pa. Code Chapter 95 - TDS Standards

Dear Deputy Secretary Hines:

As you and I discussed on April 22, 2010, we have been asked to assist the Marcellus Shale Coalition ("MSC") in connection with issues arising out of proposed changes to 25 Pa. Code Chapter 95 imposing new requirements on certain classes of wastewater discharges containing total dissolved solids ("TDS"). The MSC was founded in 2008 and is an organization committed to the responsible development of natural gas from the Marcellus Shale geologic formation. Its members include a broad spectrum of gas producing companies that are active in Pennsylvania.

The proposed regulations were initially published in the Pennsylvania Bulletin on November 7, 2009. See 39 Pa. Bull. 6467 (Nov. 7, 2009). Publication of the proposed regulations triggered a 90-day public comment period during which more than 4,000 sets of comments were submitted regarding the proposed regulations. Numerous entities and business organizations have highlighted the grave consequences that the proposed regulations will have on a broad spectrum of the regulated community in Pennsylvania. As part of this process, the MSC submitted



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detailed comments to the Environmental Quality Board ("EQB") on February 10, 2010, describing extensive concerns with the approach embodied in the proposed regulations. These comments are incorporated by reference.

Since the close of the public comment period, the proposed regulations have continued to evolve. The Pennsylvania Department of Environmental Protection ("PADEP") is pressing forward with great speed to prepare a final version of the proposed regulations for consideration by the EQB at its meeting on May 19, 2010. The MSC believes that the pace of the process is limiting the ability of PADEP to productively and fully evaluate the numerous concerns raised by the regulated community regarding the requirements contained in the proposed regulations and manner in which those requirements will be implemented. By contrast, a more deliberative process would help ensure that the consequences and ramifications of the proposed regulations are fully assessed.

The proposed regulations make sweeping changes in the manner in which wastewater discharges containing TDS will need to be managed that are predicated on watershed-specific issues of a temporal nature. In its zeal to address TDS, PADEP has made the oil and gas industry the focal point of its regulatory efforts. Unlike every other sector of the regulated community discharging wastewater that contains TDS, the current version of the proposed regulations imposes specific and more stringent discharge standards and related requirements on the oil and gas industry. This disparate approach is without foundation and disregards the fact that sources of TDS across the Commonwealth encompass a wide spectrum of activities and operations. Indeed, as discussed in the MSC's formal comments regarding the proposed regulations, studies of particular watersheds identified by PADEP as suffering from high levels of TDS indicate that sources of TDS other than the oil and gas industry account for such conditions. A root cause analysis simply does not lead to the determination that PADEP has reached to treat the oil and gas industry differently than every other sector of the regulated community.

In addition, the "one-size-fits all" approach for the oil and gas industry embraced in the proposed regulations comes at the expense of the fact-specific complexities and nuances that are the foundation of Pennsylvania's water quality program as well as the federal program under the Clean Water Act. Moreover, the proposed regulations will have extensive secondary and perhaps unintended consequences that have not been addressed. For example, the treatment standards endorsed by PADEP will require use of advanced treatment technologies that will produce very large amounts of treatment residuals. It does not appear that the proposed regulations have considered how and where these treatment residuals will be managed. Given the importance of the issues and the extensive nature of the changes that PADEP has made to the proposed regulations, the MSC endorses the recommendation recently made by Senators White and Musto and Representative Hutchins that PADEP solicit additional public comment regarding the proposed regulations in the form of an advanced notice of final rulemaking ("ANFR").

Recognizing that PADEP, at this point, is continuing to move ahead with efforts to revise the proposed regulations so that they can be presented to the EQB for adoption as a final rule, the

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MSC has reviewed the draft of the regulations that PADEP shared with the MSC on April 22, 2010. We are attaching for your consideration a redlined version of that draft document showing specific wording changes that the MSC believes will significantly improve the proposed regulations and lessen the adverse impacts on the members of the MSC while continuing to protect the environment and advance key objectives articulated by PADEP. The nature of these changes are discussed below.

In conversations with Marcus Kohl and Richard Morrison on Friday and Monday, respectively, we discussed PADEP's intent with respect to certain key elements of the proposed regulations. Based on those discussions, we have included changes in Sections 95.10(a) and 95.10(b)(1) to clarify that operations with wastewater resulting from fracturing, production, field exploration, drilling or completion of natural gas wells are entitled to the same exemptions contained in Section 95.10(a) as wastewater from other activities in Pennsylvania. We have also suggested several clarifying changes to Section 95.10(a)(1) to better reflect what we understand PADEP's intent to be. We do not believe that these proposed changes represent areas of substantive disagreement but instead are reflective of drafting clarity.¹

We have also proposed for PADEP's consideration a number of changes to Sections 95.10(b)(2) and 95.10(b)(3). Section 95.10(b)(2) imposes requirements relating to the preparation of source reduction strategies for wastewater from fracturing, production, field exploration, drilling or completion of natural gas wells. The MSC has consistently supported recycling and reuse efforts by its members and believes that significant strides are being made in the amount of wastewater that is being reused and recycled. Accordingly, the MSC does not oppose the concept of source reduction strategies. However, the requirements for source reduction strategies need to be tailored to the manner in which well drilling activities are undertaken and wastewater is handled. Moreover, such requirements need to reflect the various ways in which wastewater can be reused, recycled or beneficially used. The proposed changes to Section 95.10(b)(2) are designed to address these issues as well as to clarify the universe of wastewater subject to source reduction strategies and when the initial source reductions strategies must be prepared.

Finally, we have made a number of important changes to Section 95.10(b)(3) relating to the manner in which new and expanding mass loadings of TDS from fracturing, production, field exploration, drilling or completion of natural gas wells must be managed. These changes are vital if the proposed regulations are to have any potential to be successfully implemented. They also reflect well established components of PADEP's water quality program that have successfully served the Commonwealth for many years.

Specifically, new and expanding mass loadings of TDS associated with natural gas wells can be safely and effectively managed both in publicly owned treatment works ("POTWs") and

¹ As part of the changes to Section 95.10(a), we have suggested that the ceiling for exempt small discharge loadings of TDS be raised from 5,000 pounds per day to 10,000 pounds per day. The impetus for this change is to help ensure that small discharge loadings can continue to be managed in accordance with the existing regulatory framework.

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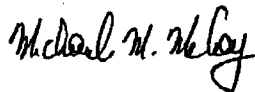
in industrial wastewater treatment facilities not qualifying as POTWs. POTWs are required to have pretreatment programs in place pursuant to 40 C.F.R. Part 403 that reflect the technologies employed by the particular POTW and the condition of the receiving stream into which the POTW discharges. Instead of allowing new and expanding mass loadings of TDS associated with natural gas wells to be discharged to POTWs in accordance with applicable pretreatment requirements, the proposed regulations mandate that all such wastewater be pretreated in centralized waste treatment facilities to stringent standards for TDS and other parameters. This approach places the natural gas industry in a regulatory straight-jacket that is unnecessary and inordinately expensive. Under the MSC's proposal, new and expanding mass loadings of TDS associated with natural gas wells can be conveyed to either a POTW or an industrial wastewater treatment facility in compliance with the full panoply of requirements under Pennsylvania's water quality program. There is no reason to limit the natural gas industry to a single treatment option as the proposed regulations currently do.

The alternative framework contained in the redlined version of Section 95.10(b)(3) will ensure that water quality in Pennsylvania is protected while allowing treatment of new and expanding mass loadings of TDS associated with natural gas wells to occur in an efficient, environmentally protective and cost-effective fashion. Moreover, wastewater associated with natural gas wells may provide important sources of revenue for POTWs that are strapped for funding necessary to make improvements to their treatment facilities.

We understand that you and your colleagues intend to devote most of the day to revising the current version of the proposed regulations. On behalf of the MSC, we trust that you will give full consideration to the proposed changes set forth in the attached document. If you or your colleagues would like to discuss the proposed changes, please do not hesitate to call me either at the office at 484-430-2303 or on my cell phone at 215-850-2349.

We very much appreciate your time and efforts and look forward to speaking with you.

Respectfully yours,



Michael M. Meloy
For MANKO, GOLD, KATCHER & FOX, LLP

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Enclosure

cc: Mr. Dana K. Aunkst
Richard Morrison, Esquire
Mr. Marcus Kohl
Ms. Kathryn Z. Klaber

25 Pa. Code § 95.10 (PADEP draft 4-22-10)

Treatment Requirements for New and Expanding Mass Loadings of Total Dissolved Solids (TDS):

(a) The following are not considered new and expanding mass loadings of TDS and are exempt from the treatment requirements in this section:

(1) Discharge loads of TDS (measured in pounds per day) from any source that were authorized by the Department as of *[insert effective date of regulations]*. Such discharge loads shall be considered existing mass loadings by the Department.

(i) Relocation or combination of existing discharge points of existing mass loadings of TDS do not constitute a new or expanding mass loading unless total mass loadings are increased beyond the authorized discharge load of TDS, in which case only the portion of the mass loadings greater than the authorized discharge load of TDS is considered a new and expanding mass loading.

(ii) Existing publicly owned treatment works (POTWs) as defined in 25 Pa. Code § 92.1 and industrial and other wastewater treatment facilities authorized operating as of the effective date of this regulation ~~under permits authorizing the acceptance, to treatment and discharge of~~ wastewater containing TDS do not constitute a new or expanding mass loading unless total mass loadings ~~accepted, treated and that are~~ discharged are to be increased beyond the authorized discharge load of TDS, in which case only the portion of the mass loadings greater than the authorized discharge load of TDS is considered a new and expanding mass loading.

(2) Facilities treating postmining pollutional discharges from abandoned mine sites. For purposes of this section, abandoned mine sites include all lands and water eligible for reclamation and drainage abatement expenditures pursuant to 30 U.S.C. §§ 1232(G)(4) or 1234.

(3) Surface mining activities with pre-existing discharges subject to requirements in 25 Pa. Code Ch. 87, Subchapter F (relating to surface coal mines: minimum requirements for remaining areas with pollutional discharges) or 25 Pa. Code Ch. 88, Subchapter G (relating to anthracite surface mining activities and anthracite bank removal and reclamation activities: minimum requirements for remaining areas with pollutional discharges).

(4) Discharge loadings of TDS from any source equal to or less than 105,000 pounds per day, as a daily average.

(5) Discharges of wastewater produced from industrial subcategories with applicable effluent limit guidelines for TDS, chlorides or sulfates established as best available technology economically achievable (BAT), best conventional pollutant control technology (BCT) or new source standards of performance, by the administrator of the EPA under Sections 303(B) and 306 of the Federal Act (33 U.S.C. §§ 1314(b) and 1316).

(b) Operations with wastewater resulting from fracturing, production, field exploration, drilling or completion of natural gas wells must comply with the following requirements:

(1) Except as provided in subsection (a) (exempting the discharge of mass loadings of TDS from existing sources) and subsection (b)(3) (authorizing new and expanding mass loadings of TDS), there may be no discharge of wastewater into surface waters of this Commonwealth from any source associated with fracturing, production, field exploration, drilling or well completion of natural gas wells.

(2) For wastewater resulting from fracturing, production, field exploration, drilling or completion of natural gas wells subject to subsection (b)(3). A wastewater source reduction strategy must be developed by the well operator within one year after the effective date of this regulation and submitted to the Department upon request. The source reduction strategy must identify the methods and procedures the operator will use, as practicable, to maximize the recycling or reuse of flow back or production fluid for (i) either to fracture other natural gas wells, (ii) or for other beneficial uses approved pursuant to 25 Pa. Code Chapter 287, Subchapter H (relating to residual waste management-beneficial use), or (iii) such other purposes as may be authorized under applicable legal requirements. The source reduction strategy shall be updated annually and include, at a minimum, the following information:

(i) A description ~~complete characterization~~ of the operator's wastewater stream ~~including based on the information regarding the wastewater stream contained in the operator's Annual Well and Waste Production Report (Form 5500-FM-OG0049) chemical analyses, TDS concentrations and monthly generation rate of flowback and production fluid at each natural gas well;~~

(ii) A description and evaluation of potential wastewater source reduction options through recycling, reuse or other beneficial uses;

(iii) The rationale for selecting the source reduction methods to be employed by the operator;

(iv) Quantification of the flowback and production fluid ~~generated by each well which is reused~~ or recycled for either to fracture other natural gas wells, or for other approved beneficial uses, or for such other purposes as may be authorized under applicable legal requirements.

(3) New and expanding mass loadings of TDS from treated discharges of wastewater resulting from fracturing, production, field exploration, drilling or well completion of natural gas wells may be authorized by the Department under 25 Pa. Code Ch. 92 (relating to national pollutant discharge elimination system (NPDES) permitting, monitoring and compliance requirements) provided that all of the following requirements are met:

(i) Such wastewater is treated at an ~~discharges may be authorized only from~~ centralized industrial wastewater treatment facilities (CWT), as defined in 40 CFR § 437.2(e);

~~(ii) Such discharges may not be authorized from or~~ a POTW, as defined in 25 Pa. Code § 92.1 ~~unless treatment at a CWT meeting all of the requirements of this chapter precedes treatment by the POTW;~~

~~(ii) If treated at an industrial wastewater treatment facility, that facility is~~ authorized to discharge the wastewater after treatment to a surface water of the Commonwealth pursuant to an NPDES permit or to convey the wastewater to a POTW in accordance with applicable pretreatment standards established by the POTW pursuant to 40 CFR Part 403;

~~(iii) If treated at a POTW, the wastewater meets applicable pretreatment~~ standards established by the POTW pursuant to 40 CFR Part 403;

~~(iv) The discharge to a surface water of the Commonwealth from a facility~~ treating wastewater subject to this subsection (b)(3) shall meet all applicable requirements under 25 Pa. Code Ch. 92 (relating to NPDES permitting, monitoring and compliance requirements) may not contain more than 500 mg/l of total dissolved solids as a monthly average;
and

~~(iv) The discharge may not contained more than 250 mg/l of total chlorides as~~ a monthly average;

~~(v) The discharge may not contained more than 10 mg/l of total barium as a monthly average;~~

~~(vi) The discharge may not contain more than 10 mg/l of total strontium as a monthly average;~~

(vii) The discharge complies with the performance standards in 40 CFR § 437.45(b) (relating to new source performance standards (NSPS)), as applicable.

(4) Deep well injection of wastewater resulting from fracturing, production, field exploration, drilling or well completion of natural gas wells must comply with 25 Pa. Code § 78.18 (relating to disposal and enhanced recovery well permits).

(c) All new and expanding mass loadings of TDS not addressed in subsections (a) and (b) may not contain more than 2,000 mg/l of total dissolved solids as a monthly average, unless a variance is approved by the Department pursuant to this section.

(d) A request for a variance to the requirements in subsection (c) must be submitted to the Department and be accompanied by the following information:

(1) An analysis of the applicant's existing discharge loads of TDS, and the projected new discharge loads associated with the proposed new and expanding mass loadings of TDS.

(2) An analysis of the applicant's existing treatment facilities and the ability of those facilities to meet the requirement in subsection (c).

(3) An analysis of upgrades necessary to bring the applicant's existing facility into compliance with the requirement in subsection (c) and the estimated costs associated with such upgrades, and

(4) An analysis of the receiving stream's water quality for TDS at, or upstream from, the proposed point of discharge.

(e) A request for a variance to the requirements in subsection (c) will be subject to the public notice requirements for permit applications contained in 25 Pa. Code § 92.61 (relating to public notice of permit application and public hearing).

(f) A variance to the requirements in subsection (c) may be approved by the Department only under the following conditions:

(1) A watershed analysis conducted by the Department determines that such a variance will not result in a reduction of available assimilative capacity for TDS to less than twenty five percent (25%) of the total available assimilative capacity at the next downstream point of water quality standards compliance. Available assimilative capacity shall be calculated using design flow conditions pursuant to 25 Pa. Code § 96.4(g) (related to water quality standards implementation); and

(2) The resulting instream concentration of TDS at the point of discharge from the new or expanding loading will not exceed the lesser of 500 mg/l or 133% of the natural quality, as defined by 25 Pa Code § 93.1 and as determined by the Department using ambient water quality network station data.

SAN PELLEGRINO
Sparkling Mineral Water



WATER	San Pellegrino Mineral Water
Origin	San Pellegrino Terme, Lombardy, Italy
Type	Sparkling
WATER ANALYSIS	mg/l
TDS*	960.0
pH Factor	7.7
Bicarbonate	239.0
Bromine	239.0
Calcium	181.0
Chlorides	57.5
Fluoride	0.5
Hardness	N/A
Iron	—
Lithium	0.2
Magnesium	53.5
Nitrate	2.2
Potassium	2.5
Silica	7.5
Sodium	36.1
Sulphates	459.0

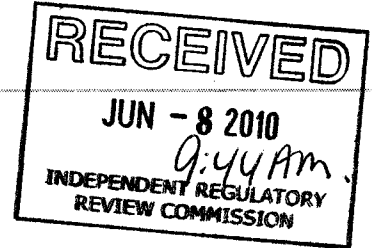
*TDS = Total Dissolved Solids

2806

From: Jewett, John H.
Sent: Monday, June 07, 2010 8:14 PM
To: IRRC; Cooper, Kathy; Wilmarth, Fiona E.; Johnson, Leslie A. Lewis
Subject: FW: MSC
Attachments: MSC Comments to IRRC re. Chapter 95.pdf

Please file as final comments on #2806.

From: Kathryn Klaber [mailto:kklaber@marcelluscoalition.org]
Sent: Monday, June 07, 2010 4:46 PM
To: Jewett, John H.
Cc: 'Tony Gaudlip'
Subject: MSC



Mr. Jewett,
Attached please find comments to the IRRC re. Chapter 95 submitted by the Marcellus Shale Coalition. Please let me know if you would like a hard copy submittal (in color), and we can get that send via fed ex today or tomorrow.
Thanks,
Katie

Kathryn Z. Klaber
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Canonsburg, PA 15317
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