



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

SECRETARY

July 26, 2011

Mr. Shawn Garvin
Regional Administrator
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Dear Regional Administrator Garvin:

Thank you for your recent letter regarding the Pennsylvania Department of Environmental Protection's (DEP) April 19, 2011, call to gas drilling operators to cease by May 19 delivering wastewater (flowback water and production fluids) from shale gas extraction to 15 facilities that currently accept it under special provisions of Pennsylvania's 25 *Pa. Code* Chapter 95 regulations. I can tell you that this call to action has been answered, as the Marcellus Shale Coalition formally responded on April 20, 2011, indicating that their members would comply. A copy of that response is enclosed. We were able to attain that commitment within 28 hours instead of 28 months that undoubtedly would have been required had orders been issued to all operators and each of the receiving facilities.

There is no question that we have accomplished a dramatic sea change here in Pennsylvania on this subject. We have gone from millions of gallons being delivered to the special provision facilities to virtually none. Of course, we are still verifying and will be taking steps to assure complete cooperation all of the time. To that end, we will be focusing on both the supply side and the demand side.

On July 11, 2011, we directed a letter to about 88 gas production operators which will have each of them certify, under penalty of law, that it and any related entity, is not delivering or authorizing the delivery of flowback water and produced water from shale gas extraction to facilities that have accepted it under the special provisions of the Commonwealth's Chapter 95 regulations that exempt these facilities from Total Dissolved Solids (TDS) treatment requirements. The certification also provides that the company is aware of its continuing duty to insure that the certification remains current and valid at all times. A sample of that letter is enclosed herewith.

On the demand side, we are reviewing the current permits of some facilities that are up for renewal to determine what, if any, new permit provisions would be appropriate. Where it is determined that more stringent limitations and conditions may be needed, the renewed permits will reflect these determinations. We expect the initial phase of that process to take about 60 days.

Per your letter, we appreciate that EPA administers the federal pretreatment program in Pennsylvania; however, only 7 of the 15 facilities identified as continuing to accept shale gas wastewater under the TDS treatment exemption are publicly owned treatment works (POTWs).

These facilities are: Punxsutawney Borough Municipal Authority; Ridgway Borough; Clairton City Municipal Authority; McKeesport City Municipal Authority; New Castle City Sanitary Authority; Reynoldsville Borough Authority; and Brockway Area Sewer Authority. Most of these facilities fall below the threshold of requiring an EPA-approved pretreatment program.

The remainder of the exempted facilities are Centralized Waste Treatment (CWTs) and are subject to the federal EPA categorical effluent limitation guidelines (ELGs)¹ for the centralized waste treatment point source category. These facilities, which are subject to EPA jurisdiction, not the Commonwealth's for ELGs are: PA Brine (Franklin); PA Brine (Josephine); Hart Resources Creekside; Tunnelton Liquids; Waste Treatment Corporation; and Advanced Waste Services. These ELG standards do not include TDS or bromides, and have not been updated in some time.

In that regard, there is an opportunity for us to partner in an important way with respect to the federal ELGs. We would respectfully suggest that EPA should consider expeditiously moving to update these ELGs. That would allow for the federal side to then be synced with what we have done and are doing here Pennsylvania.

We suggest for your consideration that EPA's examination of the ELG is important because we incorporated in our Chapter 95 revisions references to the ELG. Facilities meeting the ELG will not be subject to the Chapter 95 requirements. In addition, POTWs accepting the discharge from a CWT facility will be required to address the receipt of any waste pursuant to an EPA-approved pretreatment plan. I think you would agree with me that it would be helpful for the federal requirements in this regard to closely track the state's requirements; otherwise, interpretation, applicability and implementation through the issuance of state and federal National Pollutant Discharge Elimination System (NPDES) permits to entities for construction, operation, treatment and/or disposal by and at waste treatment facilities could become troublesome and confusing.

I would respectfully mention that our experience here in Pennsylvania might provide some insight to EPA and EPA could use what we have done here as a guide or a preview. By this I mean specifically what this Commonwealth did with respect to our Chapter 95 wastewater treatment regulations last year. That final rulemaking includes the establishment of new treatment requirements for new and expanding mass loadings of TDS. During the development of the new treatment requirements, an extensive stakeholder process was undertaken. The TDS Stakeholders Subcommittee was tasked with examining the issue of cost and available treatment technology. The subcommittee was made up of members of the various industries impacted, as well as members of interested environmental groups. We would be more than happy to share with you our experience, lessons learned as well as our technical information from that process.

As stated, the call to the shale gas operators challenged them to cease sending their wastewater to the exempted facilities. It did not request these operators to stop sending their wastewater to facilities that provide treatment for TDS treatment in accordance with §95.10(b), or facilities that do not discharge directly or indirectly to our streams. Treatment facilities that continue to accept oil and gas wastewater will have their permits reviewed and reissued at the appropriate time with additional provisions if necessary and appropriate. Where it is determined that more stringent limitations and conditions are needed, the final permits will reflect these determinations.

¹ The federal ELG established within regulations at 40 CFR, Chapter I, Part 437 – Centralized Waste Treatment Point Source Category.

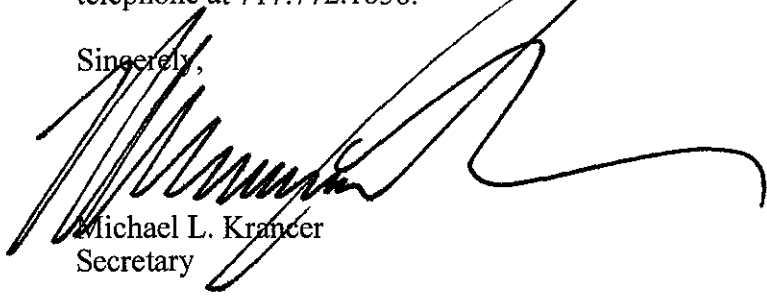
Mr. Shawn Garvin

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July 26, 2011

As always, thank you for your consideration. If you have any questions, please contact John Hines, Executive Deputy Secretary for Programs, by e-mail at johines@state.pa.us or by telephone at 717.772.1856.

Sincerely,

A large, stylized handwritten signature in black ink, appearing to read 'Michael L. Krancer', is written over the typed name and title.

Michael L. Krancer
Secretary

Enclosures



April 20, 2011

Secretary Michael Krancer
Pennsylvania Department of Environmental Protection
Rachel Carson State Office Building
400 Market Street
Harrisburg, PA 17101

Dear Secretary Krancer:

On behalf of the Board of Directors of the Marcellus Shale Coalition (MSC), I write to you today to express our commitment to meet the call of the Department of Environmental Protection (DEP) to halt the delivery of flowback and produced water from shale gas extraction to the facilities that currently accept it under special provisions of last year's Total Dissolved Solids (TDS) regulations. Our members are carefully reviewing their operations and support achieving this milestone by May 19, 2011. The MSC shares the DEP's dedication to the protection of public water supplies and is taking this action as a clear demonstration of that commitment. This decision is a further reflection of our Guiding Principles for responsible natural gas production – including our focus on state of the art environmental protections and increased transparency in our operations throughout the Commonwealth.

This action was spurred by our exposure to new research on increased levels of bromide in western Pennsylvania waterways and coming to a better understanding of how our industry can mitigate bromide loading. We expect to be actively involved with you and your department as we develop and implement the technologies and processes that will allow for the additional increase in water reuse and treatment in such a short period of time. Concurrently, we encourage you and your department to conduct additional evaluation of the various sources of bromide in the Commonwealth's waterways and their role in contributing to trihalomethane (THM) formation downstream. With this holistic approach, the residents of the Commonwealth can be satisfied that the issue will be addressed in a sustainable way.

The MSC recognizes the historic opportunity before the Commonwealth at this critical juncture. To maximize the benefits of this opportunity for future generations, we understand that we must continue to operate responsibly with regard to our most important resources, notably Pennsylvania's environment.

Thank you for your leadership on this issue. The MSC and its members look forward to working with you and your staff on a successful implementation of this ambitious and worthy pursuit.

Sincerely,

Kathryn Z. Klaber
President
Marcellus Shale Coalition

Cc: Mr. Patrick Henderson, Energy Executive



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF OIL AND GAS MANAGEMENT

July 11, 2011

SM ENERGY CO
1776 LINCOLN ST STE 700
DENVER, CO 80203-4361

Dear SM ENERGY CO:

The Department of Environmental Protection (DEP) is currently investigating the connection between elevated levels of bromide found in waters of the Commonwealth of Pennsylvania and natural gas wastewater disposal practices. Bromides, found in wastewater from Marcellus Shale gas extraction activities, as well as other possible sources, form potentially unsafe compounds called "Total Trihalomethanes" when combined with chlorine used for disinfection at water treatment facilities.

On April 19, 2011, DEP called on all Marcellus well operators to cease disposal of wastewater at publicly owned treatment works (POTW) and industrial waste treatment facilities by May 19, 2011. Currently, POTWs and industrial waste treatment facilities are exempt from the total dissolved solids (TDS) treatment requirements set forth in 25 Pa. Code, Chapter 95. DEP believes that if well operators follow this call, bromide concentrations will quickly and significantly decrease.

In order to comply with DEP's call to cease the use of exempt facilities, all Marcellus well operators should have completed a comprehensive review of their control and disposal plans and updated these plans to eliminate the use of these facilities. DEP now requests that well operators certify that they are not disposing of flowback water and produced water from shale gas extraction activities at these exempt facilities.

Under 25 Pa. Code § 78.55(a), a well operator is required to prepare and implement a control and disposal plan for wastes, including natural gas wastewater. A well operator's plan must also identify the control and disposal methods of the natural gas wastewater (25 Pa. Code § 78.55(b)). This plan must be revised prior to implementing any changes to the practices identified in the plan pursuant to 25 Pa. Code § 78.55(c). Additionally, your natural gas well permit is conditioned on implementing a control and disposal plan that identifies the processing or disposal facilities where residual waste will be processed or disposed.

Pursuant to 25 Pa. Code § 78.55(d), an operator must provide a copy of its control and disposal plan to DEP upon request, including the identification of the disposal facilities where residual wastes will be disposed. Moreover, DEP is authorized to compel the production of records, documents, or other writings necessary or proper in, and pertinent to, an investigation (58 P.S. § 601.508(c)).

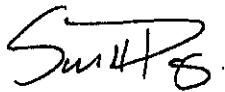
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Accordingly, although DEP may require submission of the control and disposal plan at a later date, DEP is only requesting that you complete and return the enclosed certification by August 12, 2011. The certification should be directed to my attention and returned to the address set forth in this letter.

If you have any questions regarding this important matter, please contact me at 717.772.2199.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Perry".

Scott Perry
Director
Bureau of Oil and Gas Management

Return to:
Scott Perry
Department of Environmental Protection
P.O. Box 8765
Harrisburg, PA 17105-8765

Enclosure

I am an authorized representative of _____ (permittee).
Our company has completed a comprehensive review of its current disposal practices relative to the disposal of flowback and produced water from shale gas extraction activities in Pennsylvania and surrounding states.

I do hereby certify under penalty of law that _____ (permittee) or any related entity, is not delivering or authorizing the delivery of flowback water and produced water from shale gas extraction to facilities that have accepted it under the special provisions of the Commonwealth of Pennsylvania's Total Dissolved Solids (TDS) regulations that exempt these facilities from the TDS treatment requirements. I am aware of our company's continuing duty to ensure that this certification remains current and valid at all times.

These facilities include:

Brockway Area Waste Water Treatment Plant
Clairton Municipal Authority Sewage Treatment Plant
Hart Resource Technologies Creekside Facility
City of Johnstown Dornick Point Waste Water Treatment Plant
Pennsylvania Brine in Franklin
McCutcheon Enterprises - Kiski Valley Water Pollution Control Plant
McKeesport Sewage Treatment Plant
Advanced Waste Services - New Castle Sanitation Authority and Sewage Treatment Plant
Punxsutawney Municipal Sewage Treatment Facility
Reynoldsville Sewer Authority
Ridgeway Borough Sewage Treatment Plain
Sunbury Generation Waste Water Treatment System
Tunnelton Liquids Facility
Waste Treatment Corporation in Warren

I understand and acknowledge that under Pennsylvania law there are significant penalties for submitting false information, including the possibility of fines or imprisonment.

(Signature of Authorized Representative)

Name of Company: _____

Address: _____

City, State, Zipcode

OGO-66985

Phone: (____) ____ - ____

Date: _____