

2806

From: Robert Waits [rwaits@212resources.com]
Sent: Friday, February 12, 2010 8:53 AM
To: EP, RegComments
Subject: Comments on Regulation ID#7-446 (#2806)
Attachments: Water Mgt Comments for PaDEP.pdf

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FEB 19 2010

INDEPENDENT REGULATORY
REVIEW COMMISSION

Previously sent to wrong email address with "bounce-back"... corrected and comment attached.

Regards,

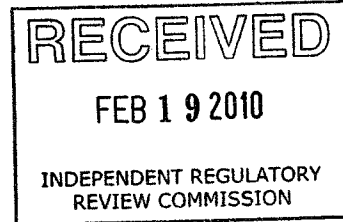


Robert Waits **NOTE NEW ADDRESS AND OFFICE PHONE/FAX**
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212

2806

TO: Environmental Quality Board
P.O. Box 8477
Harrisburg, PA 17105



12 Feb 2010
Submitted by Email
RE: Regulation ID #7-446 (#2806)
FROM: 212 Resources

Comments for Consideration in Proposed Wastewater Treatment Requirements

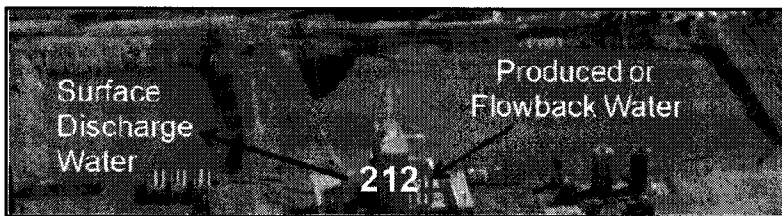
212 Resources, an industry leading service company that utilizes 120,000 gal/day transportable units (PODs) to processes flowback and produced water to remove all hazardous constituents to drinking quality standards and reduce salts (TDS) below 500 mg/L, is pleased to submit comments regarding the water management and regulatory issues now under consideration. Our company is actively seeking to develop water management facilities in Pennsylvania based upon years of proven technology and operational experience in the Western States and across numerous industrial applications for zero-discharge water management. We applaud the efforts of the Commonwealth and the oil and gas industry to promote responsible drilling and natural gas development.

212 Resources seeks to provide and promote sound technology based on good science and a view toward long-term responsiveness to water conservation and protection.

We offer the following comments in the context of several dialogues which appear to be prevalent in the public and private forums of the Commonwealth regarding proposed regulations. To achieve the Best Management Practices, we submit:

- 1) Water regulatory standards should focus on protecting the environment and aquifer resources, NOT in a debate about (conventional vs new) technologies. Set appropriate technically and financially achievable standards and let the marketplace bring reasonable, cost effective solutions to the problem. It is critical that expectations and dates be set by the agency for all parties to move forward.
- 2) We are disappointed by the "conventional versus new" technology argument currently circulating. It is a straw-man diversion without basis. There are cost acceptable hybrid-evaporative solutions (the so called "new tech") that today produce water that pass the Whole Effluent Toxicity (WET) tests, far more stringent requirements than proposed and readily provide services across all the industry sectors cited in this discussion. There are cost differences that reflect a variety of qualities of treatment. There is room for all. The regulatory response should not be established simply to promote a monopoly of a few existing facilities, it should uphold desired and desirable goals for the Commonwealth.
 - a) Evaporation is not nearly as energy-intensive as crystallization. One cannot lump the two in the same bucket. Mechanical vapor recompression (not to mention some specific, patented versions now available) is state-of-the-art for energy efficient evaporation with significantly (~40%) less requirements than older evaporation technology .
 - b) Cost comparisons must consider the full matrix of treatment, transportation, beneficial use, disposal reduction, and numerous other factors to determine the accurate "net" cost of water management.
 - c) To suggest that conventional facilities somehow have less impact while they grow is false. There are proven, closed loop evaporative package solutions which meet the most stringent air emissions criteria in the country.

- d) All-in cost/benefit is the issue, not just the processing fee. Greater reduction in and value from residues, more water recovered, shorter transport distance – all add up to lower net cost. We have seen evaporative processing fees running as low as \$0.08 to a high of \$0.12 per gallon. Pricing and value are area specific and influenced by economies of scale and customer needs. There are certainly situations appropriate for “low-end” treatment and for “high-end” treatment.
- 3) Monitoring water quality in rivers and watersheds is a lagging indicator of quality, which indicates “after-the-fact” problems requiring industry shutdowns and disruption as well as post-trauma, expensive clean up. End-of-pipe standards and monitoring provides leading indicators, which are more protective and stimulate quality solutions. Both have a place but must be selected appropriate to the risk.
- 4) Water quality is not just about high TDS but includes a broader range of constituents in flowback and produced water which pose risks if allowed to accumulate in aquifer systems (even through dilution). The nature of deep frac drilling substantially reduces migration risk, but once to the surface, the contaminated water often needs sophisticated treatment and management over time. Dilution is not a solution for the future.
- 5) Though not normally regulated, reuse of frac water, while relatively inexpensive and convenient, has a practical limit of use before potentially souring wells or fields, thereby reducing the value of the state’s resources. Industry leaders need to carefully monitor reuse impact of flowback to protect gas fields.



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