US EPA State Partner Meeting on the Hydraulic Fracturing Study
Thursday, May 27, 2010

Meeting Summary

US EPA hosted a meeting and webinar on May 27, 2010, to discuss and explain its proposed plan to study the relationship between hydraulic fracturing and drinking water. The EPA State Partner Meeting was attended by US EPA Headquarters and Regional staff representing the Office of Research and Development, Office of Water, and Office of Congressional and Intergovernmental Relations; and state agency employees representing twenty-one states as well as the Ground Water Protection Council (GWPC), Association of State Drinking Water Administrators (ASDWA), Association of State and Interstate Water Pollution Control Administrators (ASIWPCA), and the Interstate Oil and Gas Compact Commission (IOGCC).

Webinar Purpose

The purpose of the webcast is to engage in outreach with EPA's state partners on the 2010 Hydraulic Fracturing Study design and stakeholder involvement. EPA presented the following information to webinar attendees:

- Provided an overview of the context for the study and approach to developing the study design
- Described the potential components of the study
- Identified the types of information and data that stakeholders can provide
- Provided a summary of the April 2010 Science Advisory Board (SAB) Consultation
- Described the stakeholder process, and
- Solicited input and feedback from participants.

Webinar Discussion Summary

Scope of the Study

- EPA is developing strategic criteria to evaluate and identify appropriate case studies. The number of sites that this study will focus on will be largely dependent on the budget. EPA is targeting three to four sites for a first round study, and needs to design activities and calculate the costs. EPA is interested in collaborating with state partners who have activities at the wells.
- EPA received ten technical questions from the Association of State Drinking Water Administrators (ASDWA). EPA may not have answers to all of them until the study is complete.
- EPA was advised to ask well operators for technical information about their wells (i.e., actual pathway of boreholes). Some attendees stated that many operators would share that information if they were asked specific questions.

- EPA plans a general solicitation for data and will publish a notice in the *Federal Register regarding the soliciation*.
- Specific questions from attendees about the study included the following:
    - Will external mechanical integrity testing be included in the case studies?
    - How far from the well site will monitoring wells typically be installed? Will they be installed along the horizontal reach of one or more horizontal well bores to determine if there are any impacts at the farthest reaches of the well bore?
    - Will site selection for field studies take into consideration the number of water well users in an area?

Research Focus and Prioritization

- EPA hopes to gather a significant amount of data on well construction and failure. Attendees noted that while this study is focused on hydraulic fracturing, having a good dataset would also allow EPA to identify causes of water quality impairment from general production practices such as well construction, flowback, and water disposal practices. In the states' experiences, these types of activities are the real impairments to water quality.
- Some attendees noted that they have seen more problems with the construction and maintenance of domestic water wells when compared to oil and gas wells, and suggested domestic wells be examined in the study.
- An attendee noted that EPA will need to develop a "filtering matrix" before collecting archived data; this matrix will be necessary to ensure that the study compares the appropriate data.

Stakeholder Process

- Several attendees expressed interest in closer collaboration between EPA and the state regulators.
    - Attendees suggested EPA attend a presentation by the states
- EPA has not yet decided the appropriate process to convene a stakeholder collaborative group as suggested by the SAB. The SAB recommended EPA develop a consensus-based advisory group representing the balanced perspectives of all stakeholders.
- Attendees specifically suggested that geoscientists (i.e., petroleum engineers and geologists) be involved in this process. The study will benefit from "in-the-field" experts.

Ongoing and Existing Research

- An attendee noted that Colorado has been collecting water quality samples from the San Juan Basin for the past 15 years, and has a dataset of approximately 2,000 water wells. The state has baseline data from before the gas wells were constructed, and has continued to collect data triennially since the construction of the gas wells. The state hired a contractor who is performing a statistical analysis of the study's results, focusing on

constituents such as chloride and potassium that might be indicators of contamination from fracturing. The state will share the finished report with EPA.

- An attendee noted that New York is in the process of finalizing an 800-page supplemental generic environmental impact statement on high-volume hydraulic fracturing. A draft report was published in the fall of 2009, and the state received 14,000 public comments during an extensive review period. The report includes several research papers prepared by outside consultants. The state will share the finished product with EPA.
- Attendees asked who from EPA assisted with the document *Modern Shale Gas: A Primer*,. The document states that EPA provided assistance in the development of the document. An attendee checked with Ground Water Protection Council (GWPC) staff who stated that the Primer was reviewed by a Region 3 EPA employee. This attendee noted that if there were any additional questions about the study and how it came together, GWPC would be more than happy to discuss the issues.
- Attendees recommended that EPA review the public data generated at EPA's research center in Ada, Oklahoma, concerning injection well mechanical integrity verification.