

US EPA Hydraulic Fracturing Study Consultation with Tribal Governments

August 5 and 30, 2010

Meeting Summary

US EPA (hereafter referred to as EPA) announced plans to initiate a study on the potential relationship between hydraulic fracturing (HF) used for natural gas extraction and drinking water in March 2010. Several webinars and public meetings are planned to involve stakeholders in the study development process. As part of the stakeholder process, two consultation webinars with Tribal Governments were held on August 5 and 30, 2010, in order to obtain comment on a proposed study design. The meeting began with brief presentations by EPA on proposed study scope and the stakeholder process followed by discussion between EPA and attendees. EPA staff from the Office of Research and Development, Office of Water, American Indian Environmental Office and Regional Offices participated, and 36 registered guests attended the meeting. A number of registered participants had multiple attendees on the phone with them who were not identified during the webcast.

Meeting participants suggested a number of technical topics that EPA could include in the study, such as chemical toxicity, and waste treatment and disposal. Participants recommended studying the impacts of HF on agriculture and methane migration into drinking water wells as well. Participants expressed a desire for the study to include groundwater and surface water impacts. Participants also provided suggestions for outreach and data solicitation. In response to participants' questions, EPA explained and clarified details of the study's scope, focus, and logistics.

The following is a summary of the EPA presentation and discussion between EPA and meeting attendees on August 5 and 30, 2010, regarding the EPA Hydraulic Fracturing Study. The information is organized by discussion theme. Bulleted statements under each theme represent the responses to the questions and comments posed to EPA and suggestions for the Hydraulic Fracturing Study.

Components of Study

- Stakeholders expressed concern that hydraulic fracturing (HF) will be ongoing while the study is conducted. EPA plans to conduct the study as expeditiously as possible.
- Stakeholders expressed concern about the large volumes of water used by HF, an important issue in arid regions.
- Stakeholders recommended that EPA address specific questions, including:
 - What makes up HF fluid?
 - Is it safe to deposit flowback water in evaporation pits?
 - What role do tribal environmental programs play in regulating disposal of HF wastewater?
- EPA plans to investigate these questions as part of the study and will communicate with tribes about regulatory measures already in place.

- EPA also plans to investigate questions related to the underground injection of HF wastewater, as well as other disposal options and treatment methods.
- Stakeholders expressed concern about differences in evaporation pit construction and operation, and requested that regulatory methods for these pits be included in the study.
- Stakeholders introduced questions about specific drilling companies and practices. EPA requested that these questions be submitted to EPA.
- Stakeholders were concerned that certain wells may be excluded from the study. Specifically, stakeholders questioned whether the criteria of well depth and well direction (i.e., vertical vs. horizontal) would cause a hydraulic fracturing (HF) scenario to be exempted from the study. EPA confirmed all wells that have the potential to impact ground water will be considered.
 - For well depth, EPA acknowledged that even surface wells can have issues (i.e., mechanical integrity problems) that have the potential to damage upper aquifers. For this reason, there will not be a cut-off depth for wells considered for the study.
- Stakeholders questioned whether other potential impacts from HF, besides those on ground water, would be considered. In particular, stakeholders suggested considering HF's impact on agricultural activities (i.e., rice farming) and on total pollution load of an ecosystem. EPA stated other sources of contamination and its impact on farming or ecosystems are outside the main objective of the study, which is to study the adverse effects of HF on ground water.
- Stakeholders stated that migration of methane into shallow residential wells can result from HF. EPA confirmed that off-gassing of methane is a concern that will likely be included in the study.

Availability of Data and Information

- Stakeholders have water quality and other data that they are willing to contribute to the study. Stakeholders requested that EPA make known the parameters they plan to use so that stakeholders can modify their sample analysis plans if necessary.

Case Study Concept

- Stakeholders suggested drilling in the Bakken Formation, North Dakota (Fort Berthold Reservation), as a possible case study and offered to contribute a water study conducted by state hydrologists.
- Stakeholders requested more information on how EPA's Office of Research and Development plans to select sites for the case studies. EPA indicated that it is premature to speculate on more specific criteria until the availability of candidate sites is determined. Factors that will need to be considered once candidate sites are determined include: geographic variability, targeted concerns, and the possibility to collaborate on existing research projects.

Stakeholder Process

- Stakeholders expressed interest in the technical workshops. The workshops are intended to allow EPA to collect information for the study, rather than for EPA to share information with stakeholders.
- EPA encourages stakeholders to submit comments, data, and case study suggestions using the contact information below.
- EPA will hold a public meeting in Syracuse, NY on August 12, 2010.
- EPA will also hold a meeting hosted by the Onondaga tribe in Syracuse, NY on August 13, 2010.
- EPA will consider requests for additional meetings. Stakeholders can visit the EPA Web site for information on any additional meetings, as well as the locations of the technical workshops.
- EPA confirmed that presentation materials and notes from today's meeting will be available on EPA's Web site at: http://epa.gov/safewater/uic/wells_hydrofrac.html.

Regulatory Concerns

- Stakeholders reported incidences of possible illegal activities, such as dumping of hydraulic fracturing wastewater at undesignated sites, mixing waste fluids with solid materials and dumping in solid waste landfills, and operating without the appropriate permits. EPA recommended contacting the Eyes on Drilling tip line with reports of suspicious activity (see below for contact information).
- Stakeholders expressed concern about lack of communication between tribal environmental authorities, the Bureau of Indian Affairs (BIA), the Bureau of Land Management (BLM), and drilling companies.
- Stakeholders may be able to provide EPA with BIA and BLM contacts.
- Stakeholders expressed concern that hydraulic fracturing activities taking place may not follow the full intent and purpose of the National Environmental Policy Act (NEPA).

Contact Information

- Data and comments can be sent via the U.S. Postal Service to:
Jill Dean
1200 Pennsylvania Ave. NW
Mail Code 4606M
Washington, DC 20460
- Data and comments can also be sent via courier, FedEx, or UPS to:
Jill Dean, 1201 Constitution Ave. NW
Room 2118F
EPA East

Washington, DC 20460

- EPA's Hydraulic Fracturing Web site is located at:
http://epa.gov/safewater/uic/wells_hydrofrac.html.
- The Web link for public meeting registration is <http://hfmeeting.cadmusweb.com>.
- Comments can be left for the Eyes on Drilling tip line by phone at 877-919-4372 (877-919-4EPA), by e-mail at eyesondrilling@epa.gov, or by mail at:
EPA Region 3
1650 Arch Street (3CEOO)
Philadelphia, PA 19103-2029

Tribal Governments Represented at Consultation

Affiliation

Blackfeet Environmental Office
Cayuga Nation HETF
Environmental Awareness Committee of Fort Berthold
Fort Belknap Indian Community
Houlton Band of Maliseet Indians
Hualapai Tribe
Indigenous Environmental Network
Navajo Nation EPA/UIC
Pechanga Band of Luiseno Indians
Pueblo de San Ildefonso
Seneca Nation
Southern Ute Indian Tribe
Southern Ute Indian Tribe
SRMT Environment Division
National Congress of American Indians
Osage Nation
Kashia Band of Pomo Indians
Fort Bidwell Indian Community
Wyandotte Nation
Winnebago Tribe of NE
Nez Perce Tribe
St. Regis Mohawk Tribe
South Fork Band of Te-Moak
Cold Springs Rancheria
Pechanga Band of Luiseno Indians
Cherokee Nation
