

Witnesses debate whether fracking has contaminated water

Phil Taylor, Environment & Energy Publishing, 5-24-13

Lawmakers, environmentalists, and oil and gas officials yesterday sparred over whether hydraulic fracturing -- the technique used to coax oil and gas from shale formations nationwide -- can be blamed for water contamination.

It was one of many topics discussed at a freewheeling forum yesterday before the Senate Energy and Natural Resources Committee on "best practices" for shale gas production. Witnesses included opponents of fracking and the companies that perform it.

While there was broad agreement that industry and regulators must do a better job gaining the public's trust in natural gas development, witnesses disagreed on whether hydraulic fracturing is to blame for the contamination of groundwater.

The process typically injects millions of gallons of water, sand and chemicals underground to fracture shale rocks, creating pores for oil and gas to escape to the surface.

"After more than 60 years of experience in the U.S., the EPA and numerous regulators have substantiated, following extensive scientific rigor, that not a single incidence of contamination has occurred," said Marc Edwards, senior vice president of completion and production for Halliburton Co., a leading oil field service provider that performs hydraulic fracturing.

Sen. Mary Landrieu (D-La.) asked panel members whether they could cite a specific incidence in which gas development had contaminated water supplies.

Deb Nardone, who leads Sierra Club's Beyond Natural Gas campaign, pointed to Dimock, Pa., where methane found in drinking water wells last fall was linked to gas from the Marcellus Shale. Industry produced the gas using hydraulic fracturing.

But industry witnesses, and one environmentalist, were quick to clarify that hydraulic fracturing is not to blame.

"These formations are typically a mile below where our groundwater aquifers are," Edwards said. "Under scientific rigor, it's hard to understand how the chemistry can migrate through a significant volume of rock to contaminate groundwater aquifers."

Methane, he said, "is not a chemical we inject into the ground in the hydraulic fracturing process."

Mark Brownstein, associate vice president and chief counsel of the U.S. Climate and Energy Program at the Environmental Defense Fund, said he agreed with Edwards in the sense that hydraulic fracturing itself has a "remote" chance of contaminating water.

But he cautioned that all steps in the oil and gas production process demand scrutiny.

"I think what you're also hearing is that if wells are constructed improperly, or if chemicals or wastewater are mishandled at the surface, those can cause water contamination," he said. "Those are part of the hydraulic fracturing process."

Sen. James Risch (R-Idaho) said credibility is paramount as lawmakers consider policy on gas development.

"I think everybody in this room probably has read articles about extravagant claims of contamination of groundwater," he said. "It's frightening to the American people. It's frightening to us if, in fact, it's true. And yet when you dig deeper, you can't find any reliable scientific studies that have shown that there is such contamination."

Committee Chairman Ron Wyden (D-Ore.), too, emphasized the importance on an informed debate.

"If the public is going to have confidence here, we need to get on top of the science," he said.

BLM rules

Panel members also spoke at length about the federal government's role in regulating hydraulic fracturing, particularly on public lands, where roughly 3,400 wells are hydraulically fractured each year.

The Bureau of Land Management last week released a comprehensive rule requiring the disclosure of fracking chemicals and tougher reporting requirement to ensure wells do not leak into surrounding aquifers, among other steps.

Wyden said it was important that BLM give states "wide berth" to regulate hydraulic fracturing, where appropriate, but he appeared supportive of base-line federal standards.

Wyden is yet to comment at length on the BLM rules, but he said yesterday that chemicals ought to be disclosed before wells are drilled in contrast to BLM's rule, which allows companies to disclose that information up to a month afterward.

He also did not endorse BLM's choice of the FracFocus website as a repository for industry disclosures, noting environmentalists' concerns over how the data are compiled. But he also did not discount it.

Stan Belieu, president of the Groundwater Protection Council, a private nonprofit governed by a board of state water regulators that manages FracFocus, said the registry next week is scheduled to launch a major overhaul that will make its data more searchable.

Files will be available in XML format, rather than PDF, making them more user-friendly, he said.

"One can manipulate the date or extract the data as needed," he said.

Brownstein, of EDF, said the registry revamp will be a "substantial improvement."

Still, environmental groups argue that the website that holds the data on wells drilled on public lands should be managed by the federal government -- with full accountability.

"A government website managed under government rules with a legitimate process to determine what truly are trade secrets and deserve protection, if there are any, is very important," said Amy Mall of the Natural Resources Defense Council.

Forum participants also discussed ways to reduce methane emissions and minimize flaring during the oil and natural gas production process.