US gas industry refuses to release crucial data on hydrofracking

Patrick Zimmerman 7 June 2011

The gas industry is citing the lack of baseline data to discredit a report by researchers at Duke University criticizing the use of hydraulic fracturing due to high levels of methane gas found in wells near drilling activity.

However, gas companies have refused to release such data, which they have collected from thousands of well sites throughout the Marcellus Shale region, which extends from New York through Pennsylvania, Ohio, Maryland, West Virginia and beyond.

Drillers use a process called hydraulic fracturing, or "hydrofracking," to extract the natural gas. Hydrofracking is the process involving the injection of a "fracking" fluid, made up of water, sand, and various chemicals, many of which are highly toxic, below the ground in order to fracture the shale bedrock, which contains natural gas. The natural gas is then extracted, as well as the fracking fluid containing the original toxic chemicals along with radioactive elements that were present in the shale.

The Duke report found a strong correlation between drilling activities and water degradation throughout the region. The researchers tested 68 wells throughout the region, finding elevated levels of methane in 85 percent of them. The researchers believe that the elevated levels of methane are caused by the neglect of the drilling companies when digging the wells.

Chesapeake Energy claims that its data indicates that much of the water was contaminated before the drilling. According to Jim Gipson, a spokesman of the company, "One out of four water sources have detectable levels of methane present...and about one in four fail one or more EPA drinking water standards." This data could be used to determine the effects of drilling in the region, but the gas companies are refusing to release it to researchers. In a pathetic attempt to defend its cover-up, the industry is claiming that releasing the data could lower landowners' property values. However, they have continued to dig wells and pump the toxic fluid into the ground with little concern for property values or the health of local residents.

Companies have also become more aggressive in convincing people to lease their land for drilling activities. A letter sent to potential leasers by Marc Resources lists reasons to sign a lease such as "You have a child in college and want to pay for their education" and "You have accumulated debt that exceeds your income and you need the cash to pay off the debt." Tactics like this are specifically designed to profit from widespread financial distress.

Many approached by companies are worried that if they do not sign they will still end up surrounded by well sites on neighbors' properties, and all the worries that come with them, with little or no compensation. This fear is further reinforced by a legal tool known as forced pooling, where a driller is able to extract gas from under land without leasing it. In most cases, landowners are forced to join leases with their neighbors under set terms, so long as the company leases a certain percentage of land in the area. The percent varies from state to state, but is as low as 25 percent in Virginia.

One of the largest dangers associated with hydrofracking is the risk of the fracking fluid leaking and contaminating the water supply with its toxic payload.

A spill in April at a Chesapeake Energy drilling site in Bradford County, Pennsylvania, released thousands of gallons of wastewater into a nearby creek. The Pennsylvania Department of Environmental Protection fined Chesapeake \$900,000 for the spill and another \$200,000 for a fire causing the injury of three workers at another well site. This amount pales in comparison to Chesapeake's \$1.66 billion profit in 2010.

Chesapeake is refusing to publicly disclose the toxic chemicals contained in the fluid spilled until after "completion"—the preparation of production after drilling.

Common additives at other well sites include formaldehyde, ethanol, hydrotreated light petroleum distillate and 2-Butoxyethanol, which has been linked to long-term health problems. These chemicals make up a very small part of the fluid used to extract natural gas from the Marcellus Shale, yet exposure to as little as one part per million for some toxins can be extremely harmful.

Chesapeake claims that the majority of the leaked fluid is "naturally occurring brine that had been trapped in the shale for 300 million years or more." In fact, the brine is more dangerous then the fracking fluid itself, containing heavy metals such as barium and strontium as well as trace amounts of radioactivity.

Much of the water that is disposed of "properly" according to industry standards is still dumped into environment with little or no treatment. Municipal waste treatment centers aren't equipped to adequately clean the wastewater, which is then released into local waterways. While a few methods currently exist to remove oil and grease from the fluid, no viable methods exist that effectively remove the other elements.

The Ohio Environmental Protection Agency recently revoked the permit for a "pre-treatment" plant to clean the fracking fluid so that it could be sent to a city sewage plant, after the Ohio Department of Natural Resources found this to be an irresponsible disposal method for the fluid. The Pennsylvania DEP is asking companies to voluntarily stop bringing the toxic water to municipal treatment centers.

The Marcellus Shale Commission established by Pennsylvania Governor Tom Corbett is to release its final report on July 22. There is no reason to expect anything but a green light to the corporate polluters. The commission is packed with political cronies of the governor—members of the commission gave over \$1.4 million in campaign contributions to Corbett—and 13 of the 30 members have ties to the gas industry.

One member of the commission, Alan Walker, is

known for the environmental violations of three of his companies operating in the state. He was forced to continue treatment of polluted water from inactive mines after claiming his companies could no longer afford it and would be allowing the water to flow untreated into the Susquehanna River.

The Susquehanna, which flows through the drillingintensive north tier of Pennsylvania, topped an annual list of "most endangered rivers" in the country released by American Rivers. The Hoback River, which flows through Wyoming, Pennsylvania, another area with large amounts of drilling activity, came in at number seven on the list.

Jessie Thomas-Blate, coordinator of the most endangered rivers program, said, "We could have a top-10 list where all 10 were in the Marcellus Shale."

Corbett, a Republican, has shown overwhelming support for the natural gas industry, voicing the determination to "make Pennsylvania the Texas of the natural gas boom." The industry has shown a great deal of support in return, donating more than \$1.6 million to Corbett's campaigns since 2000, with \$600,000 of that being donated during the second half of 2010, during his campaign for governor of Pennsylvania.



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