

# Dash for Gas Raises Environmental Worries

Kate Galbraith, *New York Times*, 7-12-10

FORT WORTH, TEXAS — American politicians often extol natural gas as abundant, cleaner-burning than other fossil fuels, and domestically produced, unlike Middle Eastern oil. But the process of extracting it is raising concerns among people with wells in their backyards.

Anger and fear were on display last week at a public meeting convened by the U.S. Environmental Protection Agency in Fort Worth, a gas-drilling hub. Dozens of local residents took turns at the microphone to voice concerns about potential contamination of drinking water.

A film called “Gasland,” released last month on the cable channel HBO, showed people in drilling areas lighting their tap water on fire, as gas found its way into their water supply.

“I am frustrated and angry,” said State Representative Lon Burnam, Democrat of Fort Worth, who spoke at the meeting and decried the “inadequacies” of state regulators.

At issue is a procedure known as hydraulic fracturing, or fracking, which has been adopted widely in the United States over the past 10 years to extract gas trapped in shale formations. It is just starting to spread to other parts of the world, including Europe, China and Australia.

Fracking involves shooting a mixture of water, sand and chemicals deep underground, to break up rock and release the gas. The technique has vastly expanded access to shale-gas reserves in the United States, including deposits in Pennsylvania, New York, Texas and Louisiana.

More than 20,000 wells of this nature have been drilled in the past 10 years, according to a study of natural gas released last month by the Massachusetts Institute of Technology. (Natural gas accounts for 23 percent of U.S. electricity generation, and a number of politicians are calling for increased use of the fuel in vehicles.)

In Europe and Asia, large-scale recovery of shale gas is likely to happen within 10 years, according to Amy M. Jaffe, the director of the Baker Institute Energy Forum at Rice University in Houston.

Poland, for example, is “already tendering for exploration of shale gas,” she said. Canada is also speeding up its shale development, Ms. Jaffe said.

The industry said it operated far below aquifer levels, so fracking would do no harm to water. Hydraulic fracturing is a “safe, proven technology that has been used over one million times over 60 years,” Angie Burckhalter, the vice president of regulatory affairs for the Oklahoma Independent Petroleum Association, said at the Fort Worth meeting.

But people with homes in the gas fields increasingly dispute that.

Tim Ruggiero, a Texas resident who also spoke at the meeting, said that after drilling began near his home, a test on his water turned up an unknown substance that resembled MTBE, a gasoline additive.

In New York, state officials are moving aggressively to protect the watershed supplying New York City with drinking water from potential contamination from hydraulic fracturing.

Part of the problem, according to environmentalists, is that gas companies do not disclose at the wellheads what chemicals they are using. They also argue that regulations, which in the United States are mostly the

responsibility of state governments rather than the national government, tend to be weak — especially in drilling-friendly places like Texas.

On the national level, the industry obtained an explicit exemption for hydraulic fracturing from a key provision of the Safe Drinking Water Act, as part of 2005 energy legislation.

Hydraulic fracturing requires an immense amount of water, another concern in water-constrained regions.

The experience of the United States may foreshadow that of other parts of the world. Europe, for example, would love to reduce its dependence on natural gas from Russia, and discussions about exploring for shale-gas reserves are taking place in Germany, Hungary and Romania, as well as Poland.

There is a lot of talk about a “dash for gas” in Europe, said Mark Walker, a London-based energy partner in the law firm Allen & Overy. New sources of generation are needed to meet growing demand for electricity, he said, especially as old coal or nuclear plants reach the end of their life or get shut down because of European environmental legislation, particularly in the case of coal.

Companies like Exxon Mobil, ConocoPhillips, Marathon Oil and Chevron have already signed or negotiated for deals in Poland to explore shale deposits.

The U.S. government is encouraging their efforts, through research partnerships with other countries. Last November, President Barack Obama and President Hu Jintao of China announced a U.S.-China Shale Gas Resource Initiative, aimed at promoting “environmentally sustainable development of shale gas resources” and doing joint technical studies.

A similar initiative was just formed with Poland.

As American companies begin scouting for shale-gas overseas, the regulatory environment for hydraulic fracturing at home seems poised to tighten, especially in the wake of the BP oil spill in the Gulf of Mexico, which has increased public skepticism about the oil and gas industry’s safety assurances.

The Environmental Protection Agency, at the request of Congress, is about to start studying the effects of fracking on groundwater; initial findings should be ready by late 2012.

The purpose of the meeting in Fort Worth last week was to hear feedback from the public about the study; a similar meeting is to be held Tuesday in Denver, followed by two more, in Pennsylvania and New York.

Ms. Jaffe of the Baker Institute said that gas companies were developing nontoxic drilling fluids. She suggested the adoption of policies that would take away drilling licenses from companies shown to have “negligent disposal procedures” for water used in the drilling process.

Last week, Timothy Wirth, the president of the United Nations Foundation and a former senator from Colorado, told the Colorado Oil and Gas Association that while natural gas remained a crucial fuel, the regulatory status quo must change.

“Responsible regulation rewards the good performers and weeds out the bad — and that is a good thing for any industry,” Mr. Wirth said.

More regulation cannot come soon enough for some Texans.

“When is E.P.A. going to quit with these meetings and roll up its sleeves and get to work?” asked Robert Snoke, the head of a neighborhood association in Fort Worth, at the meeting last week.