What's in Fracking Fluid?

And how can we keep it out of our drinking water? Informational Meeting to be Held in Spencer on Feb11 by Sue Smith-Heavenrich *Broader View Weekly*, February 6, 2009

Go to any public meeting about drilling in the Marcellus these days and the first question you're bound to hear is: what chemicals will be used in hydraulic fracturing (fracking) of the Marcellus shale?

According to the Independent Oil and Gas Association of NY (IOGA), an organization of gas industry representatives, water and sand "typically" make up 99 percent of the fracking fluids. They describe the chemicals in generic terms: a *friction reducer* "similar to cooking oil", a *bactericide* "like Chlorine used in swimming pools", or *surfactants* similar to detergents and fabric softeners.

These chemicals, claim the industry reps, are no more hazardous than common household cleaning products. However, over the past half-dozen years hydraulic fracturing has been linked to more than 1,000 incidents of water contamination in the western United States.

People who want to learn more about fracking chemicals will have their opportunity on Wednesday, February 11. Citizens Energy Alliance is hosting a public information meeting at 6:30pm at the Spencer Town Hall. The program begins with a slide show by Dr. Theo Colborn, one of the foremost experts on health and environmental effects of fracking chemicals. Jack Ossant, a long-time member of the NY Citizens Environmental Coalition (CEC), will follow with a presentation about how citizens can use their constitutional rights to health and safety to protect their water supplies.

What's in Fracking Chemicals?

In 2007, *Time* magazine honored Colborn for her work on human health impacts of toxic chemicals in our environment. It was Colborn who pioneered the concept of "endocrine disruptors", man-made chemicals that mimic hormones. A number of health problems have been related to these synthetic chemicals, including infertility, ADHD, autism, diabetes, and thyroid disorders. Recently some childhood and adult cancers have been linked to fetal exposure to these chemicals.

More recently Dr. Colburn has been in the news for her work analyzing gas-drilling waste in the Rocky Mountain west. According to Colborn, 215 or more products are used to drill the wells, fracture the rock, and process the gas. These products contain at least 278 chemicals, of which 93 percent are known to have adverse health effects.

Of the chemicals that she has studied, 42 percent are known endocrine disruptors. Colborn has posted lists of fracking products, as well as their chemical constituents and their health impacts, on her website www.endocrinedisruption.com.

While gas industry representatives stress that the geological formations underlying New York and Pennsylvania are different than the formations in Colorado, Colborn points out that many of the same chemicals are being used in the eastern US.

Dr. Colborn will not be present in person, but will be connected to the audience through PowerPoint and remote communications. After a brief slide show she will address questions about fracking chemicals and environmental and health concerns related to natural gas extraction.

Your Rights to Health and Safety

Communities have choices when dealing with corporate intrusions, Jack Ossont told *Broader View Weekly* in a phone interview. "But there are complications with gas drilling," he said, noting that communities get divided between who leases and who doesn't.

Ossont, after a stint as a Navy pilot, turned to community service and rights-based community organizing. Among other issues, he has campaigned against the spreading of toxic sewage sludge on farmland. In 2003 the CEC selected Ossont as one of the recipients for their Environmental Leadership award. Recently Ossont helped found Democracy NY, Inc.

In an area where people are concerned about the quality of their drinking water, their attention may be focused on protecting groundwater. But the larger issue is how communities retain their power, said Ossont. He explained that the state has taken much of the power, leaving towns with minimal authority, and virtually none to enforce local ordinances that might regulate natural gas and oil drilling.

In 1980 and 1981 two towns in western NY had local ordinances that required commercial oil and gas drillers to post compliance bonds. One of the towns had additional zoning ordinances that limited drilling around schools and residences. By the following year the state legislature had adopted a new section in the environmental conservation law giving DEC the power to override local rules.

"The only thing the community has left is policing powers," Ossont said. If people join together out of a concern for the health, safety and welfare of their community, they can use those policing powers to protect their local wells and water sources. The biggest obstacle: citizens don't see themselves as having that power.

"The question is not how much pollution will we allow in our water," Ossont said, "but who gets to decide our exposure to toxins." He sees our regulatory agencies as *permitting* agencies, given the job of determining what amount of toxins is "safe", and noted that corporate lobbyists often have a hand in guiding regulations.

"Who should decide what's safe?" Ossont asked. In the case of fracking, should it be the gas corporations, who are required by law to maximize their profits, or the people drinking the water?

SIDEBAR

For more information:

Attend the public information meeting hosted by Citizens' Energy Alliance, Wednesday February 11, 6:30- 9pm at Spencer Town Hall, Rt 96.

The Endocrine Disruption Exchange (www.endocrinedisruption.com) has a section devoted to "Chemicals used in Natural Gas Development and Delivery" as well as an analysis of fracking products used in western states.

"Our Drinking Water at Risk", Oil & Gas Accountability Project, 2005. http://www.earthworksaction.org/pubs/DrinkingWaterAtRisk.pdf

"Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs" (EPA document #816-R-04-003), June 2004.