

PQ: ..the oil and gas industry [is]the only industry in America allowed ... to inject hazardous materials directly into or adjacent to underground drinking water supplies...

Gas Production Raises Concern about Drinking Water

by Sue Smith-Heavenrich

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Two weeks ago, Congressman Maurice Hinchey (22nd district) announced to the press that he is actively pushing for passage of a bill that will close a legislative loophole which exempts hydraulic fracturing (fracking) for oil and natural gas exploration and drilling, from regulation under the Safe Drinking Water Act (SDWA). The bill, HR 7231, is sponsored by Diana DeGette from Colorado. Hinchey is one of two co-sponsors of the bill.

Congressman Michael A. Arcuri (24th district), though not a sponsor of the legislation, has promised to give it his full support. Both Hinchey and Arcuri believe that New York's law and regulations are as stringent as the federal SDWA requirements – including the proposed amendment, HR 7231. They hope the amendment will provide similar protection for states with fewer regulations.

At the heart of the legislation is the determination to right a wrong – specifically the loophole for fracking that was included in the Bush administration-backed Energy Policy Act of 2005.

“I strongly opposed and voted against the Energy Policy Act in 2005,” Hinchey told *Broader View Weekly* in a telephone interview. “It [the Energy bill] was corrupt in many ways, and flowed out of secret meetings that Cheney held with members of the energy industries.” Hinchey said that he felt the oil and gas industry intentionally undermined the Safe Drinking Water Act.

“Now it is time to revisit the issue and make the Federal laws strong,” he explained. Even though there is a lot of pressure from oil and gas lobbyists on Capitol Hill, Hinchey believes that under a new administration the bill will pass, restoring the original intent of the SDWA.

“Unlike Bush,” Hinchey said, “the Obama administration is not married to the oil companies.”

Special Exemptions

Tucked into the 550-page Energy Policy Act of 2005 was a provision that amended the SDWA to redefine the term “underground injection”. The new language provided that underground injection, or the subsurface emplacement of fluids by well injection, would exclude both “the underground injection of natural gas for purposes of storage” and “the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities.”

Under this new rule the oil and gas industry became the only industry in America that is allowed – by the Environmental Protection Agency (EPA) – to inject hazardous materials

directly into or adjacent to underground drinking water supplies without undergoing further regulatory review.

Any other industrial operators who want to dispose of hazardous waste beneath the ground must fill out reviews, evaluate abandoned wells within a 2-mile radius of their proposed disposal site, and assure the EPA that their toxic waste would not and could not migrate into aquifers. But not the oil and gas industry.

EPA study criticized

The EPA initiated a study of threats to US water supplies in 2000. In particular, the EPA wanted to determine whether fracking posed a threat to underground supplies of drinking water. The final report, "Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs" (EPA document # 816-R-04-003) concluded that fracking posed little or no problem.

As soon as it was published, EPA scientists attacked the report, calling it "scientifically unsound" and claiming that the final document left out the data and reports that showed problems with fracking. A review of the draft and final EPA documents conducted by the Oil and Gas Accountability Project (OGAP) found that the EPA removed studies included in the early draft, studies suggesting that unregulated fracking posed a health threat.

According to the OGAP review, EPA failed to address the fate of frack fluids left underground as well as the toxicity of the fracking fluids. Another issue the EPA excluded from their final draft was data on vertical fractures. When formations are fracked, both vertical and horizontal fractures extend from the well bore. If the formation being fracked is located below an aquifer, the extent of vertical fracturing becomes critical. In those cases where vertical fractures have been documented, researchers have shown that they extend more than 500 feet.

The EPA also failed to address the toxicity of "produced water", the water that is produced naturally as a result of drilling. Produced water, often referred to as "brine" by the oil and gas industry, contains more than salt.

Water tests of brine produced from a gas well in Indiana County, PA, showed that a number of pollutants were present, many in quantities that could cause health problems. In addition to high concentrations of sodium, chloride and other pollutants, the scientists discovered arsenic, lead, and extremely high levels of total dissolved solids.

A 1989 study by the General Accounting Office found numerous cases of contamination of water wells from nearby injection wells that were used for disposal of produced water from oil and gas drilling. In several cases the produced water leaked into drinking water aquifers through cracks in the casings. This raises the question of whether the activity of fracking might cause cracking in casing or casing cement, or whether age contributes to the degradation and breakdown of the casing.

For more information:

“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.

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Sidebar (275 words)

A Short History of the Safe Drinking Water Act

By Sue Smith-Heavenrich

1974 - The Safe Drinking Water Act (SDWA) was passed by Congress. It authorized the US EPA to regulate underground injection wells in order to protect drinking water sources through the Underground Injection Control (UIC) program.

1984 – SDWA strengthened with additional legislation that banned injection well disposal of hazardous waste unless the operator could demonstrate that the waste could not migrate. Now operators had to assure the EPA that there was a confining layer between the injection zone and any underground source of drinking water. They also had to identify wells, such as abandoned gas and oil wells, that penetrated the same injection and confining zones and determine whether those wells could serve as potential migration pathways. This meant reviewing an area with a radius of at least two miles.

1997 – US Court of Appeals (11th Circuit) ruled that hydraulic fracturing (fracking) should be regulated under the UIC program.

2000 – EPA initiated a study to determine whether fracking fluids presented a threat to underground water supplies.

2001 – Vice President Dick Cheney convened a special task force on energy policy. One of the recommendations to Congress was to exempt fracking from the SDWA.

2004 – EPA published its completed study, concluding that fracking posed “little or not threat”

2004 – EPA scientists objected to the study, calling it “scientifically unsound” and claiming that important research and data in earlier drafts was excluded from the final document.

2005 – The Energy Policy Act amended SDWA to exclude fracking from the definition of “underground injection”.

2008 – HR 7231 introduced into the House of Representatives to restore the original language and intent of SDWA. Congressman Hinchey anticipates that it will be acted on in the next legislative session.

