

Congress Should Close the Halliburton Loophole

Hydraulic fracturing should be regulated under the Safe Drinking Water Act

Hydraulic fracturing involves the injection of fluids, often containing toxic chemicals, into oil or gas wells at very high pressure. These pressurized fluids are used to crack open the underground formation to allow oil or gas to flow more freely and increase production. Studies show that, while some of the injected fluids are returned to the surface, some remain underground. In some cases, they are injected directly into underground sources of drinking water (USDWs).¹ Our nation's drinking water sources are extremely precious resources; according to the U.S. Government Accountability Office, approximately half of the total U.S. population and 95% of our rural population obtain drinking water from underground water sources.

Fracturing is highly variable and unpredictable, and can lead to unintended consequences, such as contamination of drinking water. This practice should be regulated under the Safe Drinking Water Act (SDWA) like other forms of underground injection. Yet, in 2005, Congress exempted hydraulic fracturing from the SDWA to the benefit of Halliburton and a handful of other hydraulic fracturing companies. It's time to reverse this hand-out to special interests.

1. Closing the Halliburton Loophole would not shut down drilling or mandate a burdensome new permit process.

Legislation to close the Halliburton loophole would not require new regulations, environmental impact statements, or additional individual permits for each well. U.S. Environmental Protection Agency (EPA) regulations already exist for underground injection activities, and current EPA rules allow a state to incorporate hydraulic fracturing into the existing permitting process for each well. In Colorado, operators already have to provide information on whether fracturing will be used. Colorado's new Comprehensive Drilling Plan, an optional approach, does not require individual permits and instead allows planning for an entire geographic area in advance. Alabama currently has a permit process for hydraulic fracturing that has not reduced drilling activity.

2. Closing the Halliburton Loophole would not require disclosure of proprietary trade secrets or confidential business information.

Legislation to close the Halliburton loophole would not require disclosure of specific proprietary formulas. Even if legislation required disclosure of the chemical constituents injected underground, a list of ingredients is not proprietary – one need only look at the ingredient list on a can of Coca-Cola to know that is the case. Pennsylvania already requires operators to provide a chemical analysis of hydraulic fracturing fluids used in each operation, a requirement with which companies currently comply.²

3. Closing the Halliburton Loophole would provide a minimum federal standard to prohibit drinking water contamination and shine a light on hydraulic fracturing.

Oil and gas production now occurs in 34 states. Every state has different standards, and their strength and effectiveness vary widely. A recent report from the Hastings College of the Law concluded that "...many of the state regulatory schemes date from earlier waves of resource extraction, and have not kept pace with changed technologies, nor with a deepening concern for public health and the environment."³

See Page 2 for examples of drinking water endangerment linked to hydraulic fracturing from around the country.

¹ U.S. Environmental Protection Agency, "Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs," June 2004.

² Section M, Pennsylvania "Application Addendum and Instructions for Marcellus Shale Gas Well Development."

³ "Selected Topics in State and Local Regulation of Oil and Gas Exploration and Production," available at: <http://www.uchastings.edu/centers/public-law/oil-gas.html>.

Examples of drinking water endangerment linked to hydraulic fracturing:

TEXAS: In late 2007, three families near Grandview, Texas noticed changes in their well water just after a natural gas well within a couple of hundred yards of their properties was hydraulically fractured. Within days, five goats and a llama had died. All three families noticed strong sulfur smells in their water, which became unusable. At first their water ran dry, and then the water returned with extremely high pressure, blowing out pipes. Showering caused skin irritation. The Railroad Commission of Texas acknowledged that testing of well water found toluene and other contaminants.⁴ The families now haul water for themselves and their animals.

PENNSYLVANIA: In the summer of 2008, contamination of a drinking water well used by two families in Gibbs Hill occurred after hydraulic fracturing of a nearby natural gas well. Donna Burger, a nurse, smelled strong fumes and experienced burning in her lungs and sinuses after showering. Her fiancé Clint Yates drank water and felt immediate burning in his mouth. The artesian well that provides the water for these families had run clean and strong for over 100 years. The Pennsylvania Department of Environmental Protection found that pressure in the gas well had exceeded the pressure in the surrounding fresh groundwater system and that there had been unpermitted discharge of hydraulic fracturing fluids.⁵

OHIO: The Payne home in Bainbridge exploded in December, 2007; fortunately, no one was injured. The Ohio Division of Mineral Resources Management determined that hydraulic fracturing of a natural gas well with inadequate cementing had not been sufficiently monitored and had allowed natural gas to migrate through fractures in the bedrock into overlying aquifers and eventually into a local water well.⁶ At least 22 other drinking water wells in the area were contaminated with methane. Groundwater is the primary source of drinking water for 98 percent of the population in this county.

COLORADO: The water well of the Amos family, near Silt, blew out during hydraulic fracturing of nearby gas wells. Their drinking water turned gray, had strong smells, and bubbled. The Colorado Oil and Gas Conservation Commission determined that the Amos well was contaminated due to inadequate well structure that resulted in higher than normal well pressures and gas migration into groundwater. While water testing found methane had migrated to the Amos water well, the COGCC never tested the water for chemical additives in hydraulic fracturing fluids.⁷ Two years later, Laura Amos was diagnosed with primary hyperaldosteronism, a rare condition that has been linked in laboratory testing to 2-butoxyethanol -- a chemical that she learned had been used in the hydraulic fracturing near her home.

ALABAMA: The McMillian family water well in Northport became contaminated the day after hydraulic fracturing of a well less than 800 feet from their home. Their drinking water turned gray, bubbled, contained black oily globs, and had strong odors. The water appeared to clear, but again became discolored with strong fumes after another nearby well was fractured later the same week. Testing confirmed the presence of methane gas in the water well, indicating migration between the gas well and the water well. The Alabama Oil & Gas Board never tested the McMillian water for chemical additives in hydraulic fracturing fluids and stated it did not have a complete list of such chemicals. EPA testing did not begin until more than 9 months later, and did not account for seasonal hydrological conditions. The McMillians hauled their own water until they installed a filtration system.⁸

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⁴ Letter from Jeff Lauman to Todd Thompson, May 16, 2008.

⁵ Pennsylvania Department of Environmental Protection, Notice of Violation, Insp. ID 1727711, Enforcement ID 237069.

⁶ Ohio Department of Natural Resources, Division of Mineral Resources Management, Report on the Investigation of the Natural Gas Invasion of Aquifers in Bainbridge Township of Geauga County, Ohio, September 1, 2008.

⁷ Colorado Oil and Gas Conservation Commission, Administrative Order by Consent, Cause No. 1V, Order No. 1V-298, March 2006.

⁸ Petition for Promulgation of Rule Withdrawing Approval of Alabama's Underground Injection Control Program, Submitted to U.S. Environmental Protection Agency by Legal Environmental Assistance Foundation, May 3, 1994.