FRAC Act Q & A

What is hydraulic fracturing, or "fracking"?
Hydraulic fracturing is a process that creates new fractures in rock formations in order to access gas and oil in locations such as shale plays and coalbed methane deposits. Pressurized water, sand, and chemicals are injected into the ground in order to stimulate a larger surface area from which oil and gas can flow.

What are the concerns about it?
Fracturing fluids can contain toxic chemicals that can cause several kinds of cancers, birth defects, and blood and nervous system disorders. The extent of the toxicity is not known because companies are not required to divulge the chemicals that they use, or the amounts, but some of them, like benzene and ethylene glycol, are known.[1] Most of the fluids used in hydraulic fracturing are recovered, but some cannot be extracted from the ground, leaving hazardous chemicals in the earth. This presents a danger to underground sources of drinking water. Fracking is often too close to these aquifers for safety, and with the rock near them being deliberately broken down to release natural gas, contamination is possible. In areas where there has been hydraulic fracturing, residents have reported illnesses and contaminated drinking water.[2]

How widespread is this practice?
In the United States, 90% of oil and natural gas wells use the hydraulic fracturing method to stimulate production.[3] There are shale gas plays throughout the United States; the largest and most controversial are the Bakken shale in the Rocky Mountain west and the Marcellus shale in the northeast, from Ohio to New York. Fracking in the Marcellus shale has the potential to endanger drinking water for population centers such as New York City, Philadelphia, and Boston.[4] The practice occurs on both private lands owned by oil and gas companies and on public lands leased to them.

What is the current national regulatory framework for fracking?
Section 322 of the Energy Policy Act of 2005 exempted hydraulic fracturing from Environmental Protection Agency (EPA) regulation through the Underground Injection Control program under the Safe Drinking Water Act. Hydraulic fracturing is one of only two underground injection processes that are exempt from this regulation. In addition, this "Halliburton Loophole" (so named because Halliburton originally patented the process in the 1940s and because Vice President Dick Cheney's Energy Task Force was instrumental in adding the exemption to the 2005 Energy Policy Act) makes it easier for oil and gas companies to refrain from disclosing the chemicals used in fracking fluid, which they claim as proprietary secrets.[5]

What state regulations are in place and how do oil and gas companies comply with them?
Several oil and gas-producing states have regulations governing aspects of hydraulic fracturing. These regulations, however, are vastly different across states, falling far short of protecting the health of communities and the environment. Out of 34 drilling states, only 21 have laws specifically regulating fracking, only 10 require some sort of disclosure, and none require the amount of fluid left underground to be recorded.[6] In most states, companies do not have to monitor water quality, even when there are drinking water formations in close proximity to areas where hydraulic fracturing occurs.

What does the FRAC Act do?
The Fracking Responsibility and Awareness of Chemicals Act (FRAC Act), introduced jointly in the House and the Senate, eliminates the exemption for hydraulic fracturing under the Safe Drinking Water Act. This would mean that hydraulic fracturing operations would have federal safe-practice regulations like other industries that inject fluids into the ground, while leaving considerable flexibility to most states to develop their own programs. The bill also closes the "Halliburton Loophole" by requiring public disclosure of the chemicals used in fracking operations.

What does the industry say about the bill?
When the imminent release of the FRAC Act became apparent, the American Petroleum Institute (API) commissioned a study of the effects of hydraulic fracturing regulations. This study looks at extreme hypothetical cases in which either fracking has been banned, is severely limited, or is subject to heavy regulations. Applying these worst-case assumptions nationally, API claims that following these regulations will increase the natural gas industry's production costs by over $100,000 per well, will decrease national GDP and oil and natural gas production, and are redundant and unnecessary because states already regulate the practice.[7] However, the regulations the study analyzes are much more burdensome than the ones actually expected under the FRAC Act, creating a misleading report that is not relevant to discussion of this particular legislation.

What does the industry say about fracking itself?
The oil and gas industry claims that the practice of injecting hazardous chemicals into the ground near aquifers is safe and that regulations are burdensome, and therefore hydraulic fracturing should not be regulated. Industry asserts that states sufficiently regulate fracking, and that it is perfectly safe and has never been proven to contaminate drinking water.[8]

What about the EPA study conducted on hydraulic fracturing before the loophole was created in 2005?
A 2004 EPA study of hydraulic fracturing in coalbed methane wells concluded that hydraulic fracturing "poses little or no threat" to drinking water and that no further study was necessary.[9] However, EPA whistleblower Weston Wilson has called this study "scientifically unsound,"[10] and scientists involved in the study said they were unable to get conclusive evidence because they did not have access to information about what chemicals were actually put into the ground

through hydraulic fracturing. The Oil and Gas Accountability Project (OGAP) completed a thorough critique of the study called "Our Drinking Water at Risk" and concluded, using the same data as the EPA study, that there was not sufficient evidence to conclude that hydraulic fracturing does not pose a threat. The OGAP study also found that the EPA both removed and did not include critical information in coming to its conclusions in the report. Finally, the OGAP study found that a number of hydraulic fracturing companies recommend that unused fluids be disposed of as hazardous waste, and that drinking water contamination may not show up for decades.[11]

Is the environmental community trying to hurt natural gas production through this regulation?

Absolutely not. Natural gas is an important part of our energy economy. But because more and more natural gas is being developed, often in areas where no production has occurred in the past, it must be done in a safe way. The FRAC Act ensures that the wider production of natural gas and oil throughout the U.S. will not impair drinking water safety. For example, New York City Comptroller William C. Thompson, Jr. estimated that New York City could see a 30% increase in water rates due to a possible $6-10 billion new filtration system necessitated by fracking in the Marcellus Shale formation.[12] The easiest solution is to stop the danger at its source and ensure the health and safety of communities near hydraulic fracturing operations.

If fracking has never been proven to contaminate drinking water, why does it need to be regulated?

The claim that fracking does not contaminate drinking water is misleading. No study has ever proven that fracking pollutes drinking water because scientists and regulators do not have access to information about the chemicals used in fracking fluid, and so cannot adequately determine if those fluids were the cause of degradation of drinking water.[13] There are, however, numerous reports from people living near oil and gas wells that indicate that after hydraulic fracturing began, drinking water became contaminated. The chemicals used in fracking fluid that are known – such as benzene and ethylene glycol – have been shown to cause cancer, respiratory and nervous system disorders, and birth defects.[14]

Aren't state regulations enough?

The industry claims that the states do a sufficient job controlling fracking and that a national regulation would be too burdensome to comply with.[15] The FRAC Act allows considerable flexibility for states to develop their own programs, with oversight from EPA. In fact, a nation-wide floor would provide certainty for industry and the public that development in one state is no less safe than development in a neighboring state. If the practice is as safe as industry says, disclosure of chemicals and regulation under the federal Safe Drinking Water Act should not cause trouble nor tremendous financial burden for companies. This is important because it gives inspectors, regulators, health officials, and the general public access to vital health and environmental information that they are currently denied in most states. If the practice is as safe as industry says, disclosure of chemicals and regulation under the federal Safe Drinking Water Act should not cause trouble nor be a tremendous financial burden for companies.

Won't this bill decrease natural gas production through regulatory burdens?
No. Industry claims that natural gas production will decrease are based on inaccurate assumptions, not the program proposed in the actual bill. In fact, the API's own estimates show only a nominal decrease in production under its hypothetical Underground Injection Control program, even with its off-base assumptions.[16]

If fracking is as safe as the industry says it is, why are they putting so much effort into preventing basic safety and reporting regulations?
Indeed, this is the question – if industry was doing all it could to keep communities safe, and if fracking fluids leave as little in the ground as they say, they should have nothing to fear from opening up their operations to public scrutiny. However, since the issue of closing the Halliburton Loophole came up in early 2009, the oil and gas industry has spent $1.8 million lobbying Congress in the first quarter of 2009[17] on issues including fracking, as well as creating ads and commissioning biased studies designed to dispel legitimate public concerns about (1) the safety of drinking water supplies in areas subject to fracking operations and (2) simple information about which chemicals are being used in fracking operations.

For more information, please contact Chase Huntley at (202)-429-7431 or Jessica Goad at (202)-429-7433, or see our website at www.wilderness.org

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[1] U.S. Environmental Protection Agency. "Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs: Hydraulic Fracturing Fluids." June 2004. http://www.epa.gov/OGWDW/uic/pdfs/cbmstudy_attach_uic_ch04_hyd_frac_fluids.pdf
[2] Sumi, Lisa. "Our Drinking Water at Risk: What EPA and the Oil and Gas Industry Don't Want You to Know About Oil and Gas Fracturing." Oil and Gas Accountability Project. April 2005. http://www.earthworksaction.org/pubs/DrinkingWaterAtRisk.pdf
[3] House Energy and Commerce Committee, 109th Congress. Testimony of Victor Carrillo, Chairman, Texas Railroad Commission, Representing the Interstate Oil and Gas Compact Commission. February 10, 2005. http://www.rrc.state.tx.us/commissioners/carrillo/press/energytestimony.php
[4] Lustgarten, Abrahm. "Officials in Three States Pin Water Woes on Gas Drilling." *ProPublica*. April 26, 2009. http://www.propublica.org/feature/officials-in-three-states-pin-water-woes-on-gas-drilling-426
[5] Earthworks. "Inadequate Regulation of Hydraulic Fracturing." http://www.earthworksaction.org/halliburton.cfm
[6] *ProPublica*. "Buried Secrets: Gas Drilling's Environmental Threat." http://www.propublica.org/series/buried-secrets-gas-drillings-environmental-threat
[7] American Petroleum Institute. "Measuring the Economic and Energy Impacts of Proposals to Regulate Hydraulic Fracturing." June 2009. http://www.api.org/policy/exploration/hydraulicfracturing/upload/IHS-GI-Hydraulic-Fracturing-Natl-impacts.pdf
[8] Interstate Oil and Gas Compact Commission. "States Challenge Attempted Federal Power Grab in Hydraulic Fracturing Issue." June 10, 2009. http://www.iogcc.state.ok.us/states-challenge-attempted-federal-power-grab-in-hydraulic-fracturing-issue
[9] U.S. Environmental Protection Agency. "Study to Evaluate the Impacts to USDWs by Hydraulic Fracturing of Coalbed Methane Reservoirs- Executive Summary." June 2004. http://www.epa.gov/OGWDW/uic/pdfs/cbmstudy_attach_uic_exec_summ.pdf
[10] Wilson, Weston. "Dear Senators Allard and Campbell and Representative DeGette." October 8, 2004. http://www.earthworksaction.org/pubs/Weston.pdf
[11] Sumi, Lisa. "Our Drinking Water at Risk: What EPA and the Oil and Gas Industry Don't Want You to Know About Oil and Gas Fracturing." Oil and Gas Accountability Project. April 2005. http://www.earthworksaction.org/pubs/DrinkingWaterAtRisk.pdf
[12] City of New York, Office of the New York City Comptroller. "Thompson Raises Concerns About Drilling Process That Could Taint NYC Drinking Water." December 15, 2008. http://www.comptroller.nyc.gov/press/2008_releases/pr08-12-182.shtm
[13] Sumi, Lisa. "Our Drinking Water at Risk: What EPA and the Oil and Gas Industry Don't Want You to Know About Oil and Gas Fracturing." Oil and Gas Accountability Project. April 2005.
[14] U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry. "Frequently Asked Questions About Contaminants Found at Hazardous Waste Sites." http://www.atsdr.cdc.gov/toxfaq.html
[15] American Petroleum Institute. "Measuring the Economic and Energy Impacts of Proposals to Regulate Hydraulic Fracturing." June 2009. http://www.api.org/policy/exploration/hydraulicfracturing/upload/IHS-GI-Hydraulic-Fracturing-Natl-impacts.pdf
[16] American Petroleum Institute. "Measuring the Economic and Energy Impacts of Proposals to Regulate Hydraulic Fracturing." June 2009. http://www.api.org/policy/exploration/hydraulicfracturing/upload/IHS-GI-Hydraulic-Fracturing-Natl-impacts.pdf
[17] Korosec, Kristen. "One Big Fracking Problem for Oil and Gas Industry." *BNET Energy*. June 11, 2009. http://industry.bnet.com/energy/10001413/one-big-fracking-problem-for-drillers/