

# HYDRAULIC FRACTURING: DRILLING INTO THE ISSUE

By Shawna Bligh and Chris Wendelbo

**H**ydraulic fracturing or “fracking” is a process used to exploit oil and gas formations previously deemed either too difficult to reach or too unproductive owing to greatly diminished output. The process involves pumping engineered fluids containing chemical and natural additives into a well at high pressure to hold open fractures in the oil or natural gas formation.

As the use of fracking has increased, so, too, have concerns about its safety and environmental impact. Concerns surrounding fracking include the chemical composition of fracking fluids, water resource quality and quantity, destruction of habitat, and even seismic activity. Information about and regulation of fracking is highly dynamic. Often a study that promotes the safety of fracking will immediately be contradicted by another study proclaiming its risks.

This article surveys emerging federal and state legislative and regulatory trends relating to fracking. Acting in the void of substantive federal law, the states have taken the lead enacting legislation addressing the myriad issues associated with fracking. The result is an emerging patchwork of disparate laws and regulations.

**Federal regulation of fracking.** Historically, the Environmental Protection Agency (EPA) did not regulate the underground injection of fluids used for fracking of oil or gas formations. In fact, oil and gas production processes, including fracking, are exempt from key provisions of the Safe Drinking Water Act, the Clean

Water Act, the Resource Conservation and Recovery Act, the Clean Air Act, the National Environmental Policy Act, and the Comprehensive Environmental Response, Compensation, and Liability Act. However, in *Legal Environmental Assistance Foundation, Inc. (LEAF) v. U.S. Environmental Protection Agency*, 118 F.3d 1467 (11 Cir. 1997), the U.S. Court of Appeals for the 11th Circuit considered LEAF’s petition to EPA to withdrawal of Alabama’s Class II Underground Injection Control (UIC) program. The court held that fracking for coal bed methane

EPA to study the risk fracking might pose to drinking water sources. In 2004 EPA found that unless diesel was used as an additive, fracking posed only a small risk. As such, if diesel was not used as an additive, regulation of fracking was unnecessary.

In 2005 Congress enacted the Energy Policy Act (EPAAct), clarifying that the UIC requirements in SDWA do not apply to fracking. This exclusion did not extend to fracking activities that used diesel fuel as an additive. As a result, EPA lacks authority to regulate fracking activities that do not use diesel fuel as an additive.

As the use of fracking has grown, however, some in Congress would like to revisit this statutory exclusion. Several bills related to fracking are pending before Congress. H.R. 1084 and S. 587 would repeal the exemption for fracking established in the EPAAct. The bills would also amend the term “underground injection” to include explicitly the injection of fluids used in fracking. The bills also would require disclosure of the chemicals used in the process. On the other hand, S. 2248 and H.R. 4322 would specify that a state has sole authority to regulate fracking on federal lands within state boundaries.

In April 2012 EPA issued new source performance standards and *National Emission Standards for Hazardous Air Pollutants for the Oil and Gas Sector* that included standards related to air pollutants emanating from fracking. This is the first federal air standard for natural gas wells that are hydraulically fractured.

In May 2012 EPA issued its *Draft Guidance: Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels*, which includes guidance for UIC Class II fracking activities.

**State regulation of fracking.** Because of the absence of any comprehensive federal regulation of fracking coupled

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production in Alabama constituted underground injection subject to regulation under the Safe Drinking Water Act (SDWA). Alabama’s UIC program was revised and ultimately approved by EPA. LEAF filed another suit, and the court ultimately set aside EPA’s classification of fracking as a “Class II-like underground injection activity” and required

Shawna Bligh (shawna@bwlawgrp.com) is a member of BW Law Group and a member of the Editorial Board of *Natural Resources & Environment*. Chris Wendelbo (chris@bwlawgrp.com) is a member of BW Law Group.

with public concern regarding fracking activities, state legislatures and even some local governments have taken the lead in regulating this process. However, state regulation brings with it significant competing interests. On the one hand, policymakers are responsible for ensuring the health and safety of the environment and its citizens. On the other hand, increased oil and gas production has a direct and often significant impact on tax-based revenue. Not surprisingly, states have adopted differing approaches to address these competing interests.

Overall, state regulation of fracking is focused primarily on the following areas: (1) disclosure of the chemical composition and additives used in fracking; (2) water quality protection and monitoring; (3) spill and leak prevention; (4) regulation of the storage, transport, treatment, and disposal of waste and wastewater; (5) restrictions on well location; (6) economic impacts associated with fracking, including severance taxes and impact fees; and, in certain instances (7) drilling moratoriums.

States with significant oil and gas reserves depend heavily on production to fund various state programs. Oil and gas production in these states generates significant revenues for individuals working within the state, as well as for the state itself. These states include Alaska and Florida, which, not surprisingly, have no existing laws or proposed legislation governing fracking. However, other states with significant oil and gas reserves do regulate fracking.

Certain other states have a robust legislative framework governing fracking, despite the fact that fracking has rarely or never been used or the geologic formations underlying these states do not contain shale or oil and gas producing

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tight sands that would result in any significant oil or gas production. For example, Indiana has enacted temporary rules requiring all producers who utilize fracking to provide detailed information on the types and volumes of fluids and additives used in the well treatment. See Title 312 IAC Natural Resources, LSA Doc. #12-292(E) Emergency Rule. In May 2012 the Vermont legislature passed (and the governor signed into law) H.464, banning all fracking activities within the state. Neither of these two states has commercially developable oil and gas reserves.

A third group of states are involved in contentious disputes over the use of fracking. Numerous lawsuits have been filed in these states, and there have been proposed moratoriums on fracking and efforts to prohibit fracking altogether. One such state is Maryland. Section 14-110 of Maryland's Code offers general regulatory authority of fracking through the issuance of drilling permits that

protect public health and the environment. However, Maryland's governor, Martin O'Malley, signed an executive order mandating a detailed study of potential drilling impacts on the state. This study is to be finished by 2014. Governor O'Malley has said he will not allow the use of fracking in Maryland until that time. In addition, issues surrounding fracking have created substantial legislative conflict in New York, New Jersey, and North Carolina.

**Conclusion.** Fracking is very controversial. This has resulted in significant recent activity by state legislatures and regulatory agencies that govern injection wells and fracking. Few states that contain geologic formations allowing for enhanced mineral recovery have not modified or updated statutes or regulations governing fracking. At this point, the only certainty associated with fracking is change. ■