Natural gas update: Federal developments

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It seems that each day the legal trade press is reporting a judicial or regulatory development that affects natural resources—and natural gas in particular. The boom in natural gas exploration and production activity in the United States over the past five years, due in large part to the technological advances in combining horizontal drilling and hydraulic fracturing, has brought increased regulatory scrutiny and accompanying legal actions. This article will update readers on select recent natural gas developments from the U.S. Environmental Protection Agency (EPA), the U.S. Department of the Interior's Bureau of Land Management (BLM), and federal courts.

EPA's Final Rule governing air emissions from oil and gas operations

On August 16, 2012, EPA published the final rule for New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants for the oil and natural gas sector (Final Rule). The Final Rule regulates emissions from oil and gas wells, centrifugal compressors, reciprocating compressors, pneumatic controllers, storage vessels, and onshore natural gas processing plants.

Although the Final Rule has many elements, only the regulations for volatile organic compounds (VOCs), discussed below, break substantially new ground. The new VOC standards apply to owners and operators of onshore gas wells where construction, modification, or reconstruction is commenced after August 23, 2011. The operational standards apply when "well completion" is accomplished. "Well completion" is defined as the "flowback period," which begins after hydraulic fracturing and ends either when the well is shut in or when the well continuously flows to the flow line or storage vessel. Perhaps the most significant element of the regulation of VOCs is the requirement for "reduced emissions completions" (RECs) or "green completions" to complete wells. Prior to January 1, 2015, completed wells may comply with the VOC standards using either a "completion combustion device" (flare system) or using RECs. After January 1, 2015, RECs are generally required; however, RECs are not required for new exploratory (wildcat) wells, delineation wells, and hydraulically fractured low-pressure wells where natural gas cannot be routed to the gather line. For these wells, the final rule provides that flaring should be used to reduce emissions except where prohibited by state and local regulations.

The Final Rule also imposes a number of new equipment requirements at the wellhead, in transmission, and in processing. For example, the Final Rule limits emissions from natural gas-driven pneumatic controllers, storage tanks, and compressors.

EPA hydraulic fracturing study

EPA is currently conducting a wide-ranging study on the effects of hydraulic fracturing on drinking water. Congress instructed EPA to carry out a study on the relationship between hydraulic fracturing and drinking water in fiscal year 2010. EPA developed its Hydraulic Fracturing Study Plan (November 2011) (Study Plan) with input from state and federal regulators, industry, non-government organization, other stakeholders, and its own Science Advisory Board. EPA's first progress report is due at the end of 2012, with an additional report to follow in 2014. The Study Plan is designed to answer first, whether hydraulic fracturing can impact drinking water resources, and second, if so, what conditions are associated with these potential impacts. EPA's research plan targets all five phases of the hydraulic fracturing lifecycle: (i) water acquisition, (ii) chemical mixing, (iii) well injection and fracturing, (iv) flowback and produced water, and (v) wastewater treatment and waste disposal.

EPA will research these issues using a variety of methods including review of existing data, retrospective case studies, prospective case studies, generalized scenario evaluations, laboratory studies, and toxicological assessments. Notably, the "existing data" category includes information that EPA has "requested from hydraulic fracturing services companies and oil and gas well operators." Study Plan at ix. Further, the retrospective case studies "will focus on investigating reported instances of drinking water resource contamination" and will determine "the presence or extent of . . . contamination" and whether hydraulic fracturing contributed to the contamination. *Id.* at ix-x. The conclusions in EPA's study could be used in legal proceedings related to claims of contamination resulting from hydraulic fracturing, as well as lay the foundation for further federal regulation.

Induced seismicity

Induced seismicity refers to earthquakes caused by human activity. EPA's Underground Injection Control (UIC) National Technical Workgroup is currently evaluating "injection-induced seismicity" (i.e., earthquakes caused by injections permitted under EPA's UIC program). *See* EPA, "Underground Injection Control—Technical Information, Forms and Sample Documents." Informal statements indicate that that the UIC National Technical Workgroup is focusing on identifying best practices and recommendations for states administering the UIC program.

EPA's analysis may be aided by the National Research Council's recent report, "Induced Seismicity Technology in Energy Technologies" (June 2012). Congress instructed the U.S. Department of Energy to request the National Research Council to study induced seismicity.

The National Research Council's report explains that the physical mechanism by which human activity causes seismic events is well understood. Changes in pressure in rock, caused either via removal of liquid or gas or injection of the same can stress faults, sometimes resulting in seismic activity. Scientists do not have models capable of predicting when such activity may occur in a given location. Nevertheless, the National Research Council concluded that the net flow of fluid is key: where inflows and outflows are generally balanced, induced seismicity is less likely.

Thus, the National Research Council concluded that "the process of hydraulic fracturing a well as presently implemented for shale gas recovery does not pose a high risk for inducing felt seismic events" (i.e., seismic events large enough to be observed without instrumentation). In contrast, the Council concluded that carbon capture and sequestration may have a higher likelihood of causing felt seismic events because of the large net volumes of injected fluid.

EPA guidance on diesel fuels and hydraulic fracturing

In May 2012 EPA has also issued a new draft guidance document for permits issued under the Safe Drinking Water Act (SDWA) for hydraulic fracturing operations utilizing diesel fuels. Underground injection of fluids through wells is subject to the SDWA unless specifically excluded. The Energy Policy Act of 2005 revised the SDWA's definition of "underground injection" to exclude the injection of hydraulic fracturing fluids or prepping agents—other than diesel fuels. Thus, by being excluded from the 2005 statutory exemption, injection of diesel fuels could be subject to SDWA regulation..

EPA's draft guidance document is intended for EPA permit writers and covers a variety of technical topics, including: a description of diesel fuels (EPA's definition of diesel fuels is seen as overly expansive by the regulated community and some members of Congress), area permits for multiple wells, permit duration, well closure requirements, permit application materials and review, well construction requirements, operation, monitoring, and reporting requirements, and financial responsibility and public notice requirements.

The comment period for the draft guidance closed on August 23, 2012. While environmental organizations are calling for a complete ban of the use of diesel fuels in hydraulic fracturing, the regulated community questions the need for further regulation, given that Congress left it in EPA's discretion to regulate diesel fuels. Members of Congress have expressed concern over the draft guidance creating uncertainty and undermining the primacy of the 39 states with delegated power to regulate well injection. While all parties await the issuance of the final guidance, EPA's website makes clear that regulatory requirements are in place and need to be heeded now: "Any service company that performs hydraulic fracturing using diesel fuel must receive prior authorization through the applicable UIC program."

BLM hydraulic fracturing rule

The Bureau of Land Management (BLM) has proposed a rule to govern hydraulic fracturing on federal lands. BLM announced its proposed rule on May 11, 2012 (77 Fed. Reg. 27,691) and extended public comment through September 1, 2012, due to the complexity of the issues involved (77 Fed. Reg. 38,024 (June 26, 2012)). The rule would require public disclosure of the chemicals used in hydraulic fracturing on federal land, add regulations related to well bore integrity, and address issues related to produced water. Many officials from states with substantial hydraulic fracturing activity on BLM land criticized the rule as unnecessarily duplicative of existing state regulations on hydraulic fracturing, which already apply on federal lands. *See, e.g.*, Governor Mead's Statement on BLM's Draft Rule for Hydraulic Fracturing (May 4, 2012).

Action in the federal courts

Litigation over various federal initiatives, including long-standing EPA efforts to regulate a combination of wells and functionally related but geographically separate natural gas treatment plants, continues with vigor. This spring the Sixth Circuit rejected an EPA determination that a combination of natural gas extraction wells and a geographically distant sweetening plant could be aggregated into a "major source" for purpose of the Clean Air Act. *Summit Petroleum Corp v. U.S. Envtl. Prot. Agency,* 690 F.3d 733 (6th Cir. 2012). For a more detailed discussion, see the article by Lee Johnson in this issue of *Trends*.

Advice to the energy lawyer

Anyone advising clients in the field of natural gas regulation, whether through the Clean Air Act, the Safe Drinking Water Act, potential exploration on federal lands or elsewhere, must keep aware of the latest EPA and other federal agency initiatives. Litigation in the federal courts can also result in major changes in the regulatory regime, so stay tuned!