

Department of Legislative Services
Maryland General Assembly
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FISCAL AND POLICY NOTE

Senate Bill 422 (Senator Edwards)
Education, Health, and Environmental Affairs

Natural Gas Exploration and Production - Marcellus Shale Formation

This bill requires the Maryland Department of the Environment (MDE) to submit regulations to the Joint Committee on Administrative, Executive, and Legislative Review by December 31, 2011, regarding natural gas exploration and production in the Marcellus Shale formation.

The bill takes effect June 1, 2011.

Fiscal Summary

State Effect: MDE workloads increase minimally in FY 2011 and 2012 to develop and promulgate the required regulations, but the increase can likely be handled with existing resources.

Local Effect: Workloads may increase minimally for jurisdictions in Western Maryland to the extent the new regulations impose a direct mandate on these jurisdictions or indirectly affect local mining and drilling, environmental, or public health regulatory activities beyond what would otherwise be required under existing regulations. Local government tax revenues in Allegany and Garrett counties may be affected to the extent that the new regulations hasten and promote, or delay and discourage, drilling activities in the Marcellus Shale formation. However, the bill may not result in regulations that are significantly different from the regulations that are already established or authorized under current law.

Small Business Effect: Potential meaningful impact on any small business engaged in gas well drilling, site preparation, environmental remediation, and other contractual services associated with the regulated production of natural gas in the Marcellus Shale, to the extent the new regulations create new restrictions or requirements. In addition, to the extent the new regulations hasten and promote, or delay and discourage, drilling activities

in the Marcellus Shale formation, other small businesses that provide goods and services to affected entities could be impacted.

Analysis

Bill Summary: The regulations required by the bill must include requirements relating to:

- a water testing plan to ensure drinking water resources are protected, including requirements for surface well casing, grouting, and inspections;
- the containment and disposal of fluid used in hydraulic fracturing processes;
- the identification of all chemicals and materials used in hydraulic fracturing processes;
- prohibiting the unregulated discharge of drilling materials and fluids into streams, ponds, and other bodies of water for which the discharge has not been approved by MDE; and
- site reclamation and bonding.

Current Law: MDE's Mining Program consists of two units, the Bureau of Mines and the Minerals, Oil, and Gas Division, which regulate coal mining, noncoal mining, and oil and gas exploration and production. A person must obtain a permit from the Minerals, Oil, and Gas Division before drilling a well for the exploration, production, or underground storage of gas or oil in Maryland. A permit is also required for the disposal of any product of a gas or oil well. An applicant who wants to extract gas from the Marcellus Shale may also be required to apply for a number of other State permits, such as a water appropriation permit or a National Pollutant Discharge Elimination System permit.

Chapter 383 of 2010 established an Oil and Gas Fund to support MDE's administration of a regulatory program that oversees the drilling, development, production, and storage of oil and gas wells in the State. Among other things, current oil and gas regulations outline application requirements and procedures; criteria for permit approval; drilling and operating requirements and permit conditions; and requirements for the plugging of an oil or gas well upon abandonment or ending of operation. For instance, prior to permit approval, applicants are required to submit a drilling and operating reclamation plan that, among other things, describes how the free liquid fraction and contaminated materials will be disposed of. The drilling and operating requirements and permit conditions outlined in regulations require, among other things (1) drilling liquid to be conditioned and tested daily; (2) authority for MDE to visit and inspect permitted operations; (3) surface casing cement and other casing to meet specified requirements;

(4) recordkeeping; and (5) a completed oil and gas well to be equipped with wellhead controls adequate to control the flow and secured to prevent unauthorized access. Upon abandonment or ending of the operation of any gas or oil well, the permittee must plug the hole in accordance with specified requirements.

Current regulations apply to all gas wells in Maryland and are not specific to the practice of hydraulic fracturing, the process used to extract gas from the Marcellus Shale. However, under current law, MDE has broad authority to impose conditions on permits to protect the State's natural resources and to provide for public safety. Thus, under current law, MDE is able to impose special conditions on drilling in the Marcellus Shale if desired. Further, MDE may deny a permit based on a substantial threat to public safety or a risk of significant adverse environmental impact.

Background: The Marcellus Shale formation is a geologic feature in the Appalachian Range which has recently attracted significant attention from the energy industry for its rich natural gas deposits. Geologists have long known about the natural gas resources contained within the formation but had considered the gas to be not economically recoverable until the recent development of new drilling technology reliant on a process called hydraulic fracturing.

The Marcellus Shale underlies New York, Pennsylvania, Ohio, West Virginia, and Western Maryland. Production wells have been drilled in Pennsylvania, New York, Ohio, and West Virginia, and several companies have expressed interest in drilling into the formation in Maryland. In Maryland, the formation is located in Allegany, Garrett, and Washington counties; however, the only anticipated areas of gas production are in Garrett and western Allegany counties. MDE advises that it has received permit applications for drilling in the Marcellus Shale from two companies for six sites, but that only three of those sites are currently being pursued.

In 2010 the U.S. Environmental Protection Agency raised several concerns regarding the impact of hydraulic fracturing on water supplies, water quality, and air quality, among other issues, and is currently examining the practice more closely.

In response to concerns regarding the practice of high-volume, horizontal hydraulic fracturing, in December 2010 New York's Governor issued an executive order imposing a moratorium on the practice until at least July 2011.

Additional Information

Prior Introductions: None.

Cross File: HB 411 (Delegate Beitzel) - Environmental Matters.

Information Source(s): Allegany County, Maryland Department of the Environment,
U.S. Environmental Protection Agency, Department of Legislative Services

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