

Department of Legislative Services
Maryland General Assembly
2012 Session

FISCAL AND POLICY NOTE

House Bill 296

(Delegate S. Robinson, *et al.*)

Environmental Matters

Environment - Hydraulic Fracturing Wastewater - Prohibited Acts

This bill prohibits a person from shipping or transporting into the State, or storing, treating, discharging, or disposing of in the State, “flow back” or other wastewater resulting from hydraulic fracturing activities occurring in another state.

Fiscal Summary

State Effect: The bill is not anticipated to materially affect State finances. It is assumed that enforcement can be handled on a complaint basis with existing resources.

Local Effect: The bill is not anticipated to directly affect local operations or finances.

Small Business Effect: Potential meaningful adverse impact on small businesses engaged in the transport, storage, treatment, or disposal of flow back. However, it is unclear whether any Maryland small businesses are currently engaged in any of these activities.

Analysis

Bill Summary: The bill defines “flow back” as the fracturing fluids that return to the surface after a hydraulic fracture is completed. The bill defines “hydraulic fracturing” as injecting fracturing fluids into a target formation at a force exceeding the parting pressure of the rock, inducing fractures through which oil or natural gas can flow to the wellbore.

Current Law/Background: As the use of hydraulic fracturing within the Marcellus Shale region has increased, so too has the volume of shale gas wastewater that requires disposal. According to the U.S. Environmental Protection Agency (EPA), after

fracturing is completed, the internal pressure of the geologic formation causes the injected fracturing fluid to rise to the surface where it may be stored in tanks or pits prior to disposal or recycling. This recovered fluid, or flow back, can contain high levels of total dissolved solids, fracturing fluid additives, metals, and naturally occurring radioactive materials. EPA is examining the different disposal methods used by the industry to ensure that the regulatory process sufficiently protects public health, safety, and the environment.

According to EPA, the industry generally uses the following methods to dispose of flow back resulting from hydraulic fracturing:

- wastewater discharges to treatment facilities, which is regulated by the federal Clean Water Act (CWA);
- underground injection of waste disposal fluids, which is regulated by the federal Safe Drinking Water Act (SDWA), even though hydraulic fracturing itself is exempt from SDWA underground injection requirements;
- use of surface impoundments (pits or ponds) for storage or disposal, regulated by the states; and
- recycling of wastewater.

Under CWA, effluent guidelines for oil and gas extraction prohibit the on-site direct discharge of wastewater from shale gas extraction into waters of the United States. Surface water discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) program, which requires flow back to be treated prior to discharge into surface water.

According to EPA, because no comprehensive set of national standards exists for the disposal of wastewater discharged from natural gas extraction activities, some shale gas wastewater is transported to treatment plants, many of which are not properly equipped to treat this type of wastewater. For this reason, Pennsylvania Governor Thomas Corbett recently called on the gas drilling industry to cease the transport of flow back to treatment facilities that are not capable of properly removing certain elements within the fluids.

This new requirement in Pennsylvania has led to a search for other disposal or treatment options including the development of innovative mobile treatment facilities and the long-distance transport of flow back. Notably, the state of Ohio has recently reported that demand for use of underground injection sites within the state for disposal of flow back from other states has been increasing significantly. According to data from the Ohio Department of Natural Resources, the amount of flow back being disposed of in Ohio from Pennsylvania and West Virginia increased from 37% in the fourth quarter of 2010 to 57% in the third quarter of 2011. This surge in interstate transport of flow back fluids

has encountered obstacles, however, as Ohio has called for the suspension of new injections at certain sites in Eastern Ohio while studies continue to examine the link between such practices and the recent cluster of earthquakes in the area.

In response to concerns about the issue of hydraulic fracturing flow back treatment and disposal, EPA announced in 2011 that it would develop standards for disposing of wastewater from the hydraulic fracturing process.

In Maryland, the Maryland Department of the Environment (MDE) regulates gas exploration and production, including the disposal of any product of a gas or oil well. When a person applies for a drilling and operating permit from MDE, the permit process requires a wastewater disposal plan to identify the location where drilling and flow back waste will be disposed. There are no mandatory permit requirements for transportation of flow back other than general motor carrier safety regulations; it is exempt from regulation as hazardous waste and hazardous materials under both federal and State law. However, other permits may be required, such as an NPDES permit to discharge to waters of the State or a controlled hazardous waste treatment, storage, and disposal facility permit. MDE advises that indirect discharges (such as from tanker trucks) to individual wastewater treatment plants for disposal of wastewater from drilling operations also require approval.

According to MDE, there has been at least one instance of the disposal in Maryland of flow back that originated from another state. In 2011, a privately owned controlled hazardous substance treatment facility in Baltimore City treated and disposed of flow back as authorized under an MDE-issued permit. MDE has also advised that it has notified local government wastewater treatment plants to involve MDE in any decision to accept flow back for treatment and disposal.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Garrett County, Maryland Department of the Environment, U.S. Environmental Protection Agency, Ohio Department of Natural Resources, Pennsylvania Governor's Marcellus Shale Advisory Commission, Department of Legislative Services

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