

Capitolwire: Gas drillers explore methods for safe wastewater treatment.

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HARRISBURG (April 15) – Handling wastewater from natural gas drilling has become a growing concern for companies and communities, industry experts told House lawmakers during a Wednesday hearing.

Representatives from a water reclamation company overviewed for the House Committee on Environmental Resources and Energy their process for managing water that is used during the drilling process. Their first plant, expected to be running by January, will boost water treatment efforts but others at the hearing emphasized the need for state officials to track progress on environmentally safe methods.

The natural gas drilling process uses large amounts of water – up to 3.5 million gallons in a horizontal well in the Marcellus Shale, said STW Resources President Gene Brock. Treating this water usually consists of either putting the contaminated water into disposal wells, treating it at wastewater facilities that dilute pollutants and release it, or using a specialty facility to treat water from the well.

New proposed regulations from the Department of Environmental Protection would limit the amount of such wastewater, high in dissolved solids, that companies are able to dilute and release back into the state's rivers and streams. Department officials say the state's streams are reaching their capacity to incorporate the water, and the industry will need to look to new treatment methods.

Limits on diluting wastewater would leave companies with the choice of disposal wells or using a system like that of STW Resources. Brock said the company's system uses a three-step process that removes residual solids from the water, distills the water to separate pure water from concentrated brine, and then uses that brine to create rock salt crystals.

A plant that processes a million gallons per day of wastewater will generate about 235,000 tons of rock salt each year, Brock said, adding that the state Department of Transportation uses 600,000 tons of such salt on the state's roads during a mild winter.

The company plans to build four plants that would employ a total of 80 people over the next few years, each costing about \$85 million for the complete three-step system, he said. They also offer a mobile version of the machinery used to separate the water and brine, which would allow companies to do so on-site and cut down on the truck traffic created by moving water in and out of the drilling location.

Rep. Greg Vitali, D-Delaware, asked whether the disposal wells, also called injection wells, are an acceptable method to deal with wastewater.

“If water goes down and stays under the surface and it’s isolated, then it’s a safe method,” Brock replied, adding that a few such wells have leaked and caused contaminated water to spread. “But you remove that water forever from use. It has its issues and has had failures, but it also is perceived by the industry as a safe method.”

Using a reclamation method makes the water available for re-use, as well as creating salt rock and liquid brine that can be used on roadways and in other industrial work, company officials said.

Hunter Hill, a partner at Little Pine Resources, a small Dallas-based gas company that also has an office in Clearfield, said he sees the process used by STW is the “only viable option,” but other companies need to sign on to create enough demand for the reclamation service.

Hill said he expects to see more companies interested in the treatment process as they move into the Marcellus region, which is more economical for companies working with the current low gas prices.

However, he also cautioned that several other issues pose obstacles to the Marcellus developing quickly and bringing the state increased revenue from taxes on company incomes and royalty payments. The state’s pipeline systems will require expansion to allow for the increased gas transportation, he said.

Another frustration for landowners and smaller companies is the state’s confidentiality law, preventing the release of production figures and other records for five years. That means that companies don’t have to explain what they’re doing with their wastewater, and those receiving royalty payments have to wait to find out if they received the proper payment, Hill said.

Creating more open reporting requirements would help to “protect the honest gas operators as much as it will be needed to weed out the dishonest ones,” he said.