

Ohio quakes could incite fracking policy shift

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In Ohio, geographically and politically positioned to become a leading importer of wastewater from gas drilling, environmentalists and lawmakers opposed to the technique known as fracking are seizing on a series of small earthquakes as a signal to proceed with caution.

Earthquakes caused by the injection of wastewater that's a byproduct of high-pressure hydraulic fracture drilling, aren't new. Yet earthquakes have a special ability to grab public attention.

That's especially true after Saturday's quake near Youngstown, at magnitude 4.0 strong enough to be felt across hundreds of square miles. Gov. John Kasich, a drilling proponent, has shut down the wastewater well on which the quake has been blamed, along with others in the area, as the seismic activity is reviewed.

"Drilling's very important for our economy and to help us progress as a state, but every single person in the Mahoning Valley felt this earthquake," said state Sen. Joe Schiavoni, a Youngstown Democrat who on Tuesday called for a public hearing.

"I wouldn't deem it as an emergency, but when you live in a place that you're not used to earthquakes and you have 11 earthquakes, you're concerned," he said. "We need to give them some sort of confidence or security that this is going to be OK."

Fracking involves blasting millions of gallons of water, laced with chemicals and sand, deep into the ground to unlock vast reserves of natural gas, a boon both for energy companies and a public hungry for cheap sources of fuel.

That process, though, leaves behind toxic wastewater that must be expensively treated or else pumped deep into the earth. The wastewater is extremely briny and can contain toxic chemicals from the drilling process _ and sometimes radioactivity from deep underground.

The practice of dumping underground has been controversial in light of scant research done on potential environmental dangers, highlighted by reports of contamination of aquifers in some communities in Pennsylvania and Wyoming. Some states are reconsidering it.

A coalition of environmental groups is preparing a protest for next week's return of the Ohio Legislature. Activists opposed to increased oil and gas drilling activity across Ohio, Pennsylvania, New York and West Virginia _ where the Utica and Marcellus Shale formations are believed to hold vast quantities of gas _ see trouble with the Ohio injection well. It took wastewater from fracking, as well as other forms of drilling.

"What other business or industry isn't held accountable for its full cradle-to-grave processes?" said Deborah Nardone, director of the Sierra Club's Natural Gas Campaign. "They need to be responsible for the waste stream that they've created."

Ohio's closure of the well will have little to no impact on drilling, said Travis Windle, a spokesman for the Marcellus Shale Coalition, an industry group based in Pennsylvania. Four of the five wells that Ohio shut down were not operational, Windle said.

Pennsylvania's drillers have turned in recent months to deep-well injection of millions of gallons of wastewater because of a voluntary state moratorium last year on dumping of waste at treatment plants where the partially treated liquids are discharged into rivers and streams that drinking water is taken from.

Most drillers in Pennsylvania accepted a voluntary state moratorium last year on dumping of waste at treatment plants, which had discharged the partially treated mix into rivers and streams that supply drinking water. Many drillers now recycle the drilling fluid, and some turned to deep-well injection of millions of gallons of the wastewater.

Pennsylvania has six deep injection wells that currently accept fracking fluid, said Amanda Witman, a spokeswoman for the Department of Environmental Protection. But some of its waste is trucked into Ohio, where the geology allows for more injection wells.

Ohio's willingness to accept the fracking leftovers amid a drilling boom in states to the east, south and west worries some residents and environmental advocates who say the science isn't proven _ and point to the earthquakes as evidence.

The Ohio Petroleum Council, an industry group, says any public anxiety is misplaced.

"Injection wells have worked well to protect public safety for decades, and a situation like the one in question near Youngstown is very rare," executive director Terry Fleming said in a statement.

Kasich told reporters over the weekend that he doesn't believe the energy industry should be blamed for issues arising from disposal of their byproducts. That would be like blaming the auto industry for improper disposal of old tires, the first-term Republican said.

Scientists have known for decades that drilling or injecting water into areas where a fault exists can cause earthquakes, said Paul Hsieh, a research hydrologist with the U.S. Geological Survey in Menlo Park, Calif.

"That's widely documented and accepted within the science community," he said. "It's seen all over the world."

Injection wells have also been suspected in quakes in Arkansas, Colorado and Oklahoma.

Oklahoma's sharpest earthquake on record, of magnitude 5.8 on Nov. 5, was centered on a county that has 181 such wells, according to Matt Skinner, a spokesman for the Oklahoma Corporation Commission, which oversees oil and gas production in the state and intrastate transportation pipelines.

However, a study by the Oklahoma Geological Survey released earlier in 2011 found that most of the state's seismic activity didn't appear to be tied to the wells, although more investigation was needed.

"It's a real mystery," seismologist Austin Holland said in November. "At this point, there's no reason to think that the earthquakes would be caused by anything other than natural" shifts in the Earth's crust.

New York state's Department of Environmental Conservation is wrapping up an environmental impact review and proposed new regulations for gas drilling. Permitting for new gas wells has been on hold since the review began almost four years ago.

While the proposed permit guidelines do mention injection wells as a possible means of wastewater disposal, any shutdown of such wells in Ohio would have no effect on New York's regulatory process, department spokesman Emily DeSantis said Tuesday.

James Smith, spokesman for the Independent Oil & Gas Association of New York, said he knows of no drillers in the state who are shipping waste to Ohio and whether they would in the future is a matter of speculation.

Associated Press writers Kevin Begos in Pittsburgh, Mary Esch in Albany, N.Y., and Justin Juozapavicius in Tulsa, Okla., contributed to this report.