Concerns loom over offshore fracking's extent, oversight

David Hammer, WWL-TV, New Orleans  8:54 a.m. EDT October 31, 2014

GULF OF MEXICO — Fracking, the drilling technique that's driven a boom in land-based shale gas production, has sparked environmental concerns and public outcry, from Pennsylvania to St. Tammany Parish, La.

But fracking is also expanding offshore, in the Gulf of Mexico, with hardly anyone noticing.

A year after California imposed new regulations requiring oil and gas companies to notify state regulators and the public whenever they perform hydraulic fracturing, environmental groups and policy experts are suddenly belatedly learning about offshore fracking in the Gulf and expressing frustration with a lack of information from regulators.

"People don't know this is happening," said Jonathan Henderson of the environmental advocacy group Gulf Restoration Network. "Nobody I talk to has any idea, much less the process that's used to get at those reserves."

"There's very little public information on the practice, and to date, we just simply don't know a great deal about where and when it's taking place," said Jayni Hein, policy director at New York University's Institute for Policy Integrity.

Fracking refers to the shooting of chemicals, water and sand into the bottom of a well to stimulate the flow of oil and gas from the surrounding formation, so it can be sucked up more quickly and easily. The process has been around for about 70 years on land and in commercial use offshore for about 20 years.

The most common type of fracking offshore is less about breaking up bedrock -- as is the practice on land -- and more about clearing out sand and mud that can gum up the path of precious hydrocarbons. Tools are used deep in the well to shoot gravel or pellets, along with seawater, acid and other chemicals to break up and filter out impediments.

Industry representatives and others who have studied fracking closely say environmentalists are blowing the dangers -- both on land and offshore -- out of proportion. They say the process is very well understood by those who have been doing it for decades.

"The people that are doing it understand it pretty well, and in all likelihood, the regulators that have been tracking it understand what's going on," said Eric Smith, a professor at Tulane University's A.B. Freeman School of Business and associate director of the Tulane Energy Institute. "But it hasn't been widely publicized because nobody ever asked."

Lack of public information
There are questions, however, about how well the procedures are being tracked by regulators.

Environmental nonprofits complain that they can’t find out when and where acids and other fracking chemicals are being shot down into the bottom of Gulf wells. That’s important because those chemicals come back up to the rig, mixed in with drilling mud, rock shavings and the processed seawater from the well, and they must be disposed of properly.

Environmental Protection Agency water discharge permits allow operators to dump a certain amount of oil and chemicals overboard into the Gulf along with their processed water. But those permits and lists of the chemicals used for individual frac jobs are only available publicly for land-based operations, not the offshore ones.

Both the EPA and an industry-backed website called FracFocus offer searchable online databases of permits for fracking on shore, but not for the Gulf of Mexico.

Fracking exploded on land because new developments in horizontal and directional drilling made it more cost-effective for oil and gas operators.

The process offshore doesn’t involve horizontal drilling and there’s no drinking water sources to worry about under the sea. The offshore version usually employs a far less destructive fracturing technique in much more permeable sand formations, causing breaks that extend less than 100 feet from the well bore.

The Environmental Impact Statement for offshore drilling in the central Gulf of Mexico calls fracking "small scale by comparison" with the onshore version.

But the basics of both are the same, and some environmentalists are alarmed that it’s expanding, without any specific disclosure, into the deep water – a region where extreme hydrocarbon volatility contributed to the infamous BP well blowout and massive Gulf oil spill in April 2010. And that was an operation that did not include fracking.

The drilling work at BP’s Macondo well was approved with something called a Categorical Exclusion from specific review under the National Environmental Protection Act, something regulators promised to fix.

But a report last year by the nonprofit law firm Environmental Defense Center complained that fracking work offshore is again being approved under Categorical Exclusion from NEPA review. The report, titled “Dirty Water,” also alleges that discharge and drilling permits were being rubber stamped in California’s Santa Barbara Channel using generic, outdated environmental reviews and without stringent enough testing of overboard water.

Brian Segee, the report’s author, called for a moratorium on new offshore frac jobs until regulators got environmental impact statements and a list of the chemicals used for each well. Henderson echoed that call, saying that generic environmental impact statements covering the whole central Gulf were not good enough.

But Rock Zierman, executive director of the California Independent Petroleum Association, said the regulators are already on top of the environmental issues.

"Some have suggested that the discharges of fluids from offshore platforms are poorly characterized and impose an undue risk to the marine environment, and we simply feel that this is not true," Zierman said during a recent online seminar. "The EPA development documents themselves are more than 500 pages long. … The chemicals and chemical families used for hydraulic fracturing are considered in these documents."

He went on to say that EPA increased the frequency of overboard water testing last year, to keep a closer eye on the process. But, as WWL-TV exposed in a separate investigation last year, testing of overboard water is done by the operators and some have been caught doctoring the water samples to falsify the amount of pollutants they were dumping into the Gulf.

Uncertain numbers

In response to a WWL-TV request, the Interior Department’s Bureau of Safety and Environmental Enforcement, the federal offshore safety agency, reported that 115 Gulf oil or gas wells, or 15 percent of the 785 that were completed and prepared for production in 2013, employed a hydraulic fracturing technique known as a frac pack -- the less-destructive of two fracturing methods used offshore.

BSEE spokeswoman Eileen Angelico said frac packs account for the vast majority of the offshore fracking work, but the agency could not provide any data for other types of fracturing or well-stimulation. In the summary of drilling permits the agency makes available to the public, it does not note whether fracking is involved. Angelico said she could not give WWL-TV drilling permits detailing fracking operations because the information is proprietary.
She did provide the location of five wells near the southeast Louisiana coast that used frac packs in 2013 and are no longer kept secret because the wells are already in production. One of the fracked wells was drilled for Chevron by the Hercules 173 jack-up rig last year, near Port Fourchon. A WWL-TV crew that went offshore this week found that same rig a few miles away, drilling another well with a Superior Energy Services completions vessel alongside — a vessel that at times provides rigs with fracking chemicals and equipment.

Hercules Vice President Jim Noe did not say if that specific job involved fracking, but did say his company uses some type of hydraulic fracturing in more than half of the wells it drills on the Outer Continental Shelf. Smith, an energy economist with close ties to offshore operators, also said he believes that around half of the new wells drilled in the Gulf involve some sort of fracking.

Superior Energy Services, along with Schlumberger, Baker Hughes and Halliburton, are leading suppliers of fracking gear offshore. According to a Bloomberg story in August, a Baker Hughes executive expected offshore fracking to increase in the Gulf by more than 10 percent in the Gulf from 2013 to 2015.

And given that growth and the controversy surrounding the practice on land, even industry representatives agree that the public deserves clearer information about offshore fracking.

“I describe offshore hydraulic fracturing as a well-understood, well-regulated practice, but I do think it benefits us all to have better information and better transparency,” Zierman said.

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