Investors decry 'excessive flaring' as wasteful, environmentally damaging

Scott Streater, Environment and Energy Publishing, 3-30-12

The shale oil boom under way in states such as North Dakota and Texas has produced flaring of tons of natural gas byproduct that a group of well-heeled investors say degrades air quality, contributes to climate change and could ultimately draw unwanted attention from federal regulators.

A group of 37 investors sent a letter this week to the CEOs of 21 large shale oil producers, including Chesapeake Energy Corp., Anadarko Petroleum Corp. and Exxon Mobil Corp., warning that if the flaring continues, it threatens to derail an industry that in the next five years is expected to help make the United States the world's largest oil producer.

The investors' concern focuses on North Dakota, which last year produced an average of 418,000 barrels of oil a day, and now ranks behind only Texas and Alaska as the largest source of domestic oil production. But annual flaring-related emissions in the state were equivalent to more than 2 million tons of carbon dioxide, which is about the same volume of emissions as adding 384,000 cars to the road, according to the investors.

"We are concerned that excessive flaring, because of its impact on air quality and climate change, poses significant risks for the companies involved, and for the industry at large, ultimately threatening the industry's license to operate," according to the two-page letter signed by investors groups that oversee a combined $500 billion in assets. "Given the considerable controversy that already surrounds natural gas hydraulic fracturing, which has led to moratoria in places like New York State, Quebec and France, operational restrictions for shale oil are a very real risk."

Currently, shale gas production is regulated mostly by the individual states where development occurs. But if the flaring persists, the investors caution, the issue could perhaps draw the attention of U.S. EPA and other regulators, which they wrote "invites potentially inhibiting regulatory responses."

Air quality is becoming a larger issue in North Dakota, where the state has already locked horns with EPA over hazy air in its national parks (E&E Daily, March 6).

"Excessive flaring is not only environmentally damaging but also a waste of a valuable resource," said Karina Litvack, the head of governance and sustainable investment at London-based F&C Asset Management, one of the investor groups that signed the letter. "We want to encourage companies to articulate plans for resolving this issue while shale oil production is still in its relative infancy."

Beefed-up industry effort

The oil and gas industry has not formally commented on the letter.

Representatives with Chesapeake Energy and Anadarko did not return telephone calls and emails yesterday seeking comment for this story. A telephone call yesterday to a spokeswoman for Continental Resources Inc., another large shale oil producer targeted by the investors, was not returned.

A spokeswoman with Exxon Mobil said the company was in contact with Ceres, the Boston-based business investor coalition that helped coordinate the investors' letter, and would respond directly to the investors.

The investors' letter requests the companies disclose by May 1 how much each is flaring and what plans each has in place to reduce flaring. The investors also want to meet with representatives from all 21 shale oil producers.

But in North Dakota, where the investors focused most of the flaring concerns outlined in the letter, the industry is making strides to reduce gas flaring by capturing the gas and then selling it for a profit.

The industry in the next two years is on pace to invest $3.5 billion to build processing plants and to expand the pipeline infrastructure needed to transport gas byproduct to the processing centers, an effort that will "really attack the challenge at full speed," said Justin Kringstad, director of the North Dakota Pipeline Authority in Bismarck, N.D.

An example: Tulsa, Okla.-based ONEOK Partners L.P., which in January opened the Garden Creek natural gas processing plant near Watford City, N.D. The new plant is capable of processing 100 million cubic feet of natural gas a day.

ONEOK Partners is also developing two other plants, and each one will be capable of processing 100 million cubic feet of natural gas a day, Kringstad said.

North Dakota Gov. Jack Dalrymple (R), at a ceremony marking the opening of ONEOK Partners' new processing plant, said that by the end of the year the state should have the infrastructure in place to process 1.1 billion cubic feet of natural gas a day.

"The root of the challenge is the sheer size of the [shale oil] resource," Kringstad said. "This is a challenge the petroleum industry has never had to face before, dealing with such a large oil field."

But already, the state has seen a modest decline in gas flaring at drilling sites across the 15,000-square-mile Bakken play, said Alison Ritter, a spokeswoman with the North Dakota Department of Mineral Resources in Bismarck.

The industry drilling in the Bakken flared 34 percent of the gas it captured as part of the shale oil extraction process in December. The addition of processing facilities and the ongoing expansion of the pipeline infrastructure contributed to a modest reduction of daily gas flaring in January to 32 percent, a drop Ritter called "encouraging."

All this will help the industry meet a state goal of reducing the volume of daily gas flaring to 10 percent across the Bakken by 2013, Ritter said.

"A couple years ago, this play was in its infancy, and it still is. That's part of the issue. This play didn't get kicked off until late 2009, so that infrastructure still needs to be built and put in," she said. "People want to see it done overnight, but that simply cannot happen."

No end in sight

The 37 investors, however, do not appear to be impressed by North Dakota's efforts so far.

While the investors noted in their letter that ongoing plans to "invest in additional pipeline and processing infrastructure in North Dakota to utilize natural gas" are positive, they also stated that "the plans announced to date appear insufficient to prevent growth in associated gas production from continuing to significantly outpace

infrastructure capacity. This is a major concern given the sharp increase in shale oil production projected for the coming decade."

Indeed, the shale oil boom continues to expand rapidly, thanks to new technologies and techniques, such as hydraulic fracturing and horizontal drilling.

"While flaring has been most prevalent and controversial in North Dakota's Bakken Shale region, it is also a growing concern in the Eagle Ford Shale region in Texas, as well as in emerging production markets like Colorado's Niobrara Shale region and Ohio's Utica Shale region," the investors wrote.

That list could soon include Alaska.

Alaska's North Slope likely holds some of the nation's largest shale oil and gas reserves, according to a U.S. Geological Survey study last month that estimated the region's potential could be second only to the Bakken for oil (E&ENews PM, Feb. 24).

Officials say the North Slope probably contains as much as 2 billion barrels of technically recoverable crude. The figures suggest the North Slope's crude oil basin is larger than the Eagle Ford shale oil field, but smaller than the Bakken Shale.

A few companies have announced plans to drill test wells for shale oil in the North Slope this summer, including Spanish giant Repsol and smaller independent petroleum companies.

"Few if any companies appear to have well-articulated plans for managing this growing risk," Steven Heim, director of social research and advocacy at Boston Common Asset Management, said in a statement. "As long-term investors, such a short-sighted approach raises significant concerns."