

North Dakota Grapples With Gas Flaring

By Dan Larson
Special Correspondent

More than one quarter of the associated gas produced in North Dakota is disposed of by well site flaring, according to the state Oil & Gas Division, compared with about 1 percent of gas that is flared nationally, according to the federal Energy Information Administration.

In North Dakota, that is enough to light up the night landscape in NASA photos from space to the extent that it "rivals Minneapolis-St. Paul and Chicago in size," according to several published accounts. It's an issue industry spokesmen acknowledge is difficult to resolve. And now, class-action lawsuits by mineral owners and a call to action by the state have brought the issue to the forefront.

The North Dakota Industrial Commission (NDIC), whose three members include the governor, attorney general and agriculture commissioner, manages and directs 12 state regulatory agencies, including the Oil & Gas Division. Of the political issues facing the commission, gas flaring has become the most controversial, and that is because it is so visible, OGD Director Lynn Helms says.

"The general public has honed in on this as a problem people want fixed," Helms comments.

At the direction of the NDIC, an industry task force was formed by the North Dakota Petroleum Council in September to provide the state with policies and solutions to flaring, while also informing stakeholders of the challenges and possible solutions to the issue.

The NDIC described a framework of goals for the task force as:

- Reduce flared volume;
 - Reduce the number of wells flaring;
- and

- Reduce the duration that associated gas is flared from a well.

The North Dakota Petroleum Council reports an initial meeting with Governor Jack Darylmyre was held in September, after which the 35-member industry task force met 12 times to gather data and discuss the issue. Early findings were presented to the NDIC on Oct. 22. The task force is to present its findings to the NDIC in December, and a final report is due to the governor in January.

No Silver Bullet

"Flaring is a very complex issue and there is no silver-bullet solution, but the industry is committed to capturing more natural gas," says NDPC President Ron Ness. "Significant progress has been made over the past eight years in reducing the volume and the length of time associated gas is flared at new wells. The tremendous growth in the number of new oil wells brought on line in North Dakota has tripled the amount of oil produced as well as increased the overall number of well flares."

Operators are coming together to identify solutions to flaring that are practical, safe and achievable, Ness points out. "Real answers will require a commitment from multiple stakeholders, including political leaders, regulators, industry, tribes and individual landowners," he says. "Such commitment to work together is familiar to North Dakotans, and we are confident progress can be made in addressing the issue to the benefit of mineral owners and all citizens of this state."

Increased Capacity

The industry "has invested more than \$6 billion in new pipelines, processing plants and other infrastructure" to handle the production of associated gas, points out

Terry Kovacevich, NDPC chairman and a regional vice president for Marathon Oil, in a statement released by the association.

Since Bakken Shale development began in earnest seven years ago, gas plant capacity "has increased 340 percent, from 227 million cubic feet a day to more than 1 billion cubic feet a day," Kovacevich reports. However, he adds, "Production continues to outpace capacity" because of lagging infrastructure development and lack of early understanding of the make-up and volume of Bakken associated gas.

In November, the North Dakota Oil & Gas Division reported that September oil production averaged 931,940 barrels a day, an increase of 20,754 bbl/d from August, while natural gas production exceeded 1.06 Bcf/d, an increase of 53 MMcf/d from August. Both production figures were called "major, major milestones" by director Helms.

Looking ahead, companies have announced plans to invest between \$775 million and \$875 million in more than 1,000 miles of new gathering pipelines and an additional 350 MMcf/d in processing capacity over the next two years, according to the NDPC task force report presented in October. That new capacity will add 750,000 barrels of natural gas liquids export capacity and 400 MMcf/d of gas export capacity through 400 miles of new export pipeline.

However, there are five primary causes for sustained high levels of flaring in North Dakota, according to the task force report:

- Bakken associated gas tends to be liquids rich, a fact the group says was not properly considered during early stages of Bakken development.

- There are limited windows for pipeline and plant construction because of weather.