

Pa. reports air pollution from shale gas industry

MICHAEL RUBINKAM - Associated Press - Associated Press

Pennsylvania's shale gas industry was responsible for about 4 percent of the total air pollution emitted by all industrial facilities in 2011, according to a first-ever inventory taken by state environmental regulators.

Drillers and other companies involved in the extraction, processing and transportation of natural gas from the Marcellus Shale accounted for nearly 9 percent of the nitrogen oxides and nearly 14 percent of the volatile organic compounds emitted from all so-called "point" sources of pollution statewide, according to the Department of Environmental Protection tally.

Under federal law, DEP is required to report statewide air emissions to the U.S. Environmental Protection Agency every three years; 2011 was the first year in which DEP required the shale gas industry to report emissions.

The survey does not take emissions from cars and trucks — the single largest source of air pollution — into account. Nevertheless, it provides an initial snapshot of air pollution caused by drilling rigs, fracking operations, compressor stations and other elements of natural gas production in Pennsylvania's vast Marcellus Shale formation.

The industry produced 16,542 tons of nitrogen oxides and 2,720 tons of volatile organic compounds in 2011, according to the report. By comparison, power plants were a far bigger source of air pollution, contributing 142,749 tons of nitrogen oxides and far greater amounts of soot, carbon monoxide and other pollutants.

Nitrogen oxides are produced during combustion — primary culprits are vehicle exhaust and electrical power plants — and can worsen respiratory conditions like bronchitis and asthma. They also combine with VOCs to form unhealthy ground-level ozone, or smog.

The drilling industry pointed to the numbers as evidence it is having a small impact on air pollution. But some environmentalists expressed concern Friday.

Kevin Stewart, a member of the DEP advisory committee, said he's concerned that shale gas will result in an increasing amount of air pollution as more wells are drilled and fracked and more processing plants, pipelines and compressor stations are built.

"Some people might be surprised at the numbers this relatively early in the natural gas industry expansion," said Stewart, director of environmental health for the American Lung Association's mid-Atlantic chapter. "What, as a consequence, should be done preemptively to make sure this doesn't get out of hand as an air pollution control problem?"

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But Andrew Paterson, vice president of technical and regulatory affairs at the Marcellus Shale Coalition, said the extraction industry's air emissions represent only one side of the pollution ledger. Electrical utilities are switching from coal to cleaner-burning natural gas, for example, enabling an overall reduction in emissions, he said.

Indeed, the DEP report shows that statewide air emissions from point sources like power plants plummeted between 2008 — when the last inventory was taken — and 2011.

"When you look at the whole picture, you're seeing a decline in emissions," he said Friday. "But even if you are only focused on emissions from drilling and fracking, it's still a very small number when compared to other manmade emissions."

A new study from RAND Corp. tries to quantify the economic impact of drilling-related air pollution in Pennsylvania. The study, released Thursday, estimated that air pollution caused between \$7.2 million and \$32 million in health and environmental damages for 2011. By comparison, the study estimated a single coal-fired power plant caused \$75 million in damages in 2008.

But the study's authors say the air impacts are nevertheless a concern in heavily drilled regions of the state.

"When you compare the industry emissions to all the sources of emissions we have in the state, you could say to yourself, 'Who cares?'" said Aimee Curtright, one of the study's co-authors. But "if you're downwind of a (natural-gas) compressor station, and you're a long way from the coal-fired power plant, what matters to you and your health is the compressor station that's upwind. It's a question of where you sit."

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