



## Environmental Update

November 2011

### Ohio EPA Issues Draft General Permit for Shale Drilling and Production

Oil and gas drilling in Ohio's Utica and Marcellus shale region has significantly increased in recent years, drawing both support and vocal concerns. These opportunities arise from the discovery of natural gas deep in the bedrock areas of eastern Ohio. Many oil companies have recognized these opportunities and have begun operations in Ohio. While actual licensing of the oil and gas injection wells is regulated by Ohio's Department of Natural Resources, the process to drill and extract oil and natural gas generates air emissions, as well as large quantities of wastewater.

In response to concerns arising from the shale gas boom, Ohio EPA recently issued a draft general permit for air emissions associated with oil and natural gas production for shale gas extraction in Ohio. This permit would allow entities that qualify for the permit to apply for and be issued the general permit, as opposed to needing to obtain a normal permit to install and operate. ***Comments on the draft permit are due by November 28, 2011.***

Ohio EPA determined that most of the activities associated with the drilling and completion phases of well development are generally exempt from air permitting requirements due to the temporary nature of these operations, their limited duration, their exemption by rule or their *de minimis* nature.

As for the oil and/or natural gas production phase, the general permit covers a variety of emission sources found at most shale gas production sites including internal combustion engines, turbine-powered generators, dehydration systems, storage tanks, flares and unpaved roadways. The permit incorporates, where applicable,

various NESHAP requirements for certain processes, as well as New Source Performance Standards for certain processes. Of note, and in addition to incorporating applicable federal standards, the model general permit also imposes the following restrictions:

- **Glycol dehydration unit:** Imposes a 100 percent control requirement on flash tank emissions; limits total organic compounds, less methane and ethane, to 3.20 tons per year (tpy) and limits visible emissions to 20 percent as a six-minute average.
- **Spark ignition internal combustion engines:** Limits emissions of particulate emissions (PE) to 19.6 tpy, 34.7 tpy of nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO) to 69.5 tpy and volatile organic compounds (VOC) to 17.3 tpy, all on a rolling 12-month period, as well as limits visible emissions to 20 percent as a six-minute average.
- **Stationary diesel-fired compression ignition diesel internal combustion engines:** Limits visible emissions to 20 percent as a six-minute average; limits emissions to 0.72 tpy PM, 6.3 tpy NO<sub>x</sub>, 9.0 tpy CO, 2.15 tpy VOC and 0.013 tpy SO<sub>2</sub>.
- **Natural gas micro-turbines:** May only operate two such turbines under the general permit. Limits exhaust emissions to 9 ppmvd NO<sub>x</sub> at 15 percent oxygen and 0.013 tpy NO<sub>x</sub>, 0.82 tpy CO, 0.40 tpy PE, 0.033 tpy SO<sub>2</sub>, and limits PE to 0.04 pounds per million Btu of actual heat input; and limits visible particulate emissions to 20 percent as a six-minute average.
- **Tanks (no more than 15 tanks, each not more than 39,894 gallons):** Limits VOC emission to 3.3 tpy per tank; does not permit any petroleum product in any tank, other than crude oil or

condensate without controls including internal floating roofs.

- **Combustor/flare:** Limits emissions to not more than 10 MM Btu/hr.; limits NO<sub>x</sub> emissions to 0.68 lbs./hr. 3.0 tpy, SO<sub>2</sub> emissions to 0.0003 lbs./hr. and 0.14 tpy, limits VOC emissions to 0.63 lbs./hr. and 3.0 tpy, and CO emissions to 3.7 lbs./hr. and 16.2 tpy; prohibits visual emissions, except for periods not exceeding five minutes during any two consecutive hours.
- **Ancillary equipment (compressors, pumps, piping, and gas-water/condensate/oil separators):** Limits VOC emissions to 10.0 tpy per rolling 12-month period from fugitive emission leaks; requires leak detection and repair.
- **Unpaved roadways:** Limits emissions to 12.8 tpy of fugitive particulate emissions; prohibits visible particulate emissions except for a period of time not exceeding three minutes during any 60-minute period; requires watering or dust suppression on roadways.

The general permit also has a qualifying criteria document, which specifies the activities that are eligible or ineligible for the general permit.

## FOR MORE INFORMATION

For more information on the draft general permit or the commenting process, please contact

### Wray Blattner

937.443.6539

[Wray.Blattner@ThompsonHine.com](mailto:Wray.Blattner@ThompsonHine.com)

### Chris Wiest

513.352.6660

[Chris.Wiest@ThompsonHine.com](mailto:Chris.Wiest@ThompsonHine.com)

or any member of [Thompson Hine's Environmental practice group](#).

\*\*\*

*This advisory bulletin may be reproduced, in whole or in part, with the prior permission of Thompson Hine LLP and acknowledgement of its source and copyright. This publication is intended to inform clients about legal matters of current interest. It is not intended as legal advice. Readers should not act upon the information contained in it without professional counsel.*

*This document may be considered attorney advertising in some jurisdictions.*

© 2011 THOMPSON HINE LLP. ALL RIGHTS RESERVED.