

EPA releases multiple proposals under the Clean Air Act

The United States Environmental Protection Agency (EPA) recently released several proposals seeking to reduce greenhouse gas and other emissions from the oil and natural gas sector. EPA's proposals are part of the Obama administration's larger Climate Action Plan, a goal of which is to reduce methane emissions from the oil and gas industry by 40 to 45 percent from 2012 levels by 2025. EPA also stated that the proposals seek to protect public health by seeking to reduce emissions of volatile organic compounds (VOCs), a precursor to ground-level ozone formation. In addition to these emissions-related measures, EPA also released a proposed rule intended to clarify single source determinations for entities within the oil and gas industry. Together, these proposals will likely affect a wide array of facilities within the industry, including natural gas well sites, processing plants, compressor stations and storage facilities.



Drone's eye view. PIOGA Outreach Director Dan Weaver used a drone to capture this aerial view of a well pad outside Hermitage in Mercer County.

Proposed revisions to NSPS Subpart 0000 to establish methane and VOC standards

One of the proposed rules that EPA released on August 18 would revise the New Source Performance Standards (NSPS) for crude oil and natural gas production, transmission and distribution, 40 C.F.R. 60 Subpart OOOO. (See related article, page 26.)

This NSPS rule was first promulgated in 2012 and has since been revised multiple times. Under the current proposal, certain new, modified or reconstructed sources at affected facilities currently regulated under Subpart OOOO within the oil and natural gas source category would become subject to methane and VOC emissions standards.

The proposed NSPS revisions would also apply to those sources which are regulated under the EPA's 2012 NSPS for VOCs under Subpart OOOO, including hydraulically fractured gas well completions and equipment leaks at natural gas processing plants, as well as those sources which are regulated for VOCs, including certain pneumatic controllers and compressors. Under the proposal, wet seal centrifugal compressors (except those located at well sites) would be required to achieve a 95 percent reduction of methane and VOC emissions, while reciprocating compressors not located at well sites would be subject to the work-practice standard of replacing rod packing depending on the source's hours of operation, duration of time or to re-route emissions from the rod packing to a closed vent system. Further, under the proposed NSPS revisions, pneumatic controllers other than those located at natural gas processing plants would be subject to a bleed rate limit of six standard cubic feet per hour. Pneumatic controllers located at processing plants would continue to be subject to the zero bleed rate as specified in the current NSPS.

The proposed NSPS revision would expand the scope of sources subject to these emissions standards to include several new activities or equipment, including hydraulically fractured oil well completions, pneumatic pumps, and fugitive emissions from well sites and compressor stations. Specifically, natural gas-driven chemical/methanol and diaphragm pneumatic pumps, other than those located at natural gas processing plants, would be required to reduce methane and VOC emissions by 95 percent if a control device is already available at the site. Such

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pumps at processing plants, however, would be subject to a zero methane and VOC emissions requirement. The proposal would also apply hydraulically fractured well completion requirements for gas wells to oil wells. Hydraulically fractured oil well completion of non-wildcat or non-delineation wells to use “reduced emissions completions,” where feasible, in combination with a completion combustion device, whereas hydraulically fractured oil well completion of wildcat or delineation wells would be required to use a completion combustion device.

Further, new and modified well sites and compressor stations would be required under the proposed NSPS revisions to implement leak detection and repair (LDAR) programs either on a semiannual or annual basis to identify sources of fugitive emissions. However, the frequency of LDAR surveys would be potentially adjusted based on the rate at which surveys indicate fugitive emissions from components. Applicable operators would also be required to repair any such identified sources of fugitive emissions within 15 days.

Draft Control Techniques Guidelines for RACT determinations within the oil and natural gas industry

On the same day as it released its proposed NSPS revisions for methane and VOC emissions from the oil and gas industry, EPA also released a draft Control Techniques Guidelines (CTG) document, intended to provide state and local air agencies within certain nonattainment areas for ozone with guidance for determining reasonably available control technology (RACT) for reducing VOC emissions from certain sources within the oil and gas sector. The CTG document provides recommended RACT determinations for specific sources in the oil and gas industry, which state and local air agencies can adopt when making their own formal RACT determinations. However, the CTG document does not constitute a binding regulation, and states must make RACT determinations which are subsequently incorporated in their respective state implementation plans.

The RACT recommendations in the draft CTG document correspond to large degree to the VOC reductions that are provided in the proposed NSPS revisions. These recommendations include, for example, using vapor recovery units or other mechanisms to route emissions to the process or to a combustion device for applicable storage vessels. For reciprocating compressors in the production and processing segments, EPA recommends replacement of rod packing systems every three years or 26,000 hours of operation as RACT, whereas for wet seal centrifugal compressors, EPA recommends use of a closed vent system to route emissions to a combustor or to the compressor or fuel line.

Recommended RACT under the draft CTG document for equipment leaks at processing plants would include institution of LDAR programs required under NSPS Subpart VVa for equipment in VOC service except for compressors, which would lower the leak threshold definitions and increase monitoring frequency as compared to most LDAR programs currently used. For continuous bleed natural gas-driven pneumatic controllers at natural gas processing plants, RACT for most sources was recommended to entail installation of an instrument air system.

The draft CTG applies only to areas within the Ozone Transport Region or in other areas designated as “moderate” nonattainment areas or worse for ozone. In addition, the draft CTG is not applicable to equipment in the transmission segment, due to such equipment’s insignificant VOC emissions.

Clarification of the term “adjacent” in single source determinations

EPA also released on August 18 a proposed rule regarding single source determinations for purposes of New Source Review (NSR) and Title V air permitting. (*See related article, page 16.*) Under both programs, a “stationary source” is defined to include emission units that, among other things, are located on “one or more contiguous or adjacent properties.” Vagueness in the meaning of “adjacent” under this definition has inspired significant debate and litigation, particularly as EPA has allowed for considerations of “functional interdependence” as a component of the meaning of “adjacent.” This practice has been challenged in several courts as well as the Pennsylvania Environmental Hearing Board, and was rejected by the U.S. Court of Appeals for the Sixth Circuit in *Summit Petroleum Corp. v. EPA*, 690 F.3d 733 (6th Cir. 2012).

In response to recent litigation, EPA released on August 18 a proposed rule offering two approaches to clarify the meaning of “adjacent” in the NSR and Title V permitting contexts. Under the first option (identified as “preferred” by EPA), the definition of “adjacent” would include those sources or activities “located on the same surface site, or on surface sites that are located within one-quarter mile of one another.” Under the second option, “adjacent” would include equipment which is either “proximate” or “exclusively functionally interrelated,” such as through physical connection (e.g., through pipelines), exclusive delivery of product from one group of equipment to the other via truck or train, or whether one group of equipment would be able to operate if the other group of equipment was not operating.

Providing input

These proposals released by EPA are expected to have a significant impact on the oil and natural gas sector. Operators of sources that may be covered under each of these proposals are encouraged to submit comments. Public comments on each of the above proposals will be accepted until 60 days after their respective publication in the *Federal Register*. In addition, EPA will hold public hearings on these proposals on September 29 in Pittsburgh, as well as on September 23 in Denver, Colorado, and Dallas, Texas. Those wishing to present oral comments at the hearings should register in advance through EPA’s online registration form at www.epa.gov/airquality/oilandgas.