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EPA Publishes Regulatory Proposals that Would Further Curb Methane and VOC Emissions from the Oil and Gas Sector

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Introduction

On August 18, 2015, the U.S. Environmental Protection Agency ("EPA") proposed a suite of regulatory actions aimed at reducing methane and volatile organic compound ("VOC") emissions from the oil and gas sector.[1] The regulatory proposals fulfill the Obama Administration's commitment, as part of its broader Climate Action Plan, to (1) initiate a rulemaking under § 111(b) of the Clean Air Act[2] to establish new standards for methane and VOC emissions from new and modified oil and gas sources, and (2) develop new Control Techniques Guidelines ("CTGs") for states to achieve further emissions reductions from existing oil and gas sources in areas subject to enhanced controls for precursors of ozone. To date, these proposed actions represent the most aggressive federal regulatory effort to address emissions of methane (a key contributor to global climate change) that occur during the production, processing, and transmission of oil and natural gas.

On the same day, the EPA also proposed significant revisions to its rules governing "single source determinations" for the oil and gas industry. These rules determine whether oil and gas wells, compressor stations, and other production, processing, and transmission facilities should be regulated together or separately for the purposes of Clean Air Act permit programs. Aggregation of emissions from multiple minor sources can cause those sources to be regulated more stringently, as a single major emission source. The EPA's proposal sets forth two radically different options with regard to what is often the key factor in single source determinations for the oil and gas sector - deciding whether the sources are "adjacent" to one another and thus part of the same "building, structure, facility or installation."

The EPA published these proposals in the Federal Register on September 18, 2015, triggering the start of a 60-day public comment period,[3] and separately announced a series of three public hearings on the proposed §111(b) and single source determination rules (in addition to a third proposed rule, which concerns federal implementation of the minor source permit program in Indian country).[4] Meanwhile, the EPA continues to accept public comments through October 13, 2015 on its proposed voluntary Natural Gas STAR Methane

[1] Documents associated with each of EPA's proposals are available at http://www.epa.gov/airquality/oilandgas/actions.html.

[2] 42 U.S.C. § 7411(b).

[3] *See* 80 Fed. Reg. 56577, 56579, & 56593 (Sept. 18, 2015).

[4] 80 Fed. Reg. 51991 (Aug. 27, 2015).

Challenge Program, under which oil and gas companies would "make and track ambitious commitments to reduce methane emissions."[5]

Now is the time for the regulated community to provide feedback to the EPA on these substantial regulatory proposals. Together, these rules and guidelines will have a considerable impact on the future development of the nation's abundant oil and gas resources.

Proposed Emissions Standards for New and Modified Sources

Relying on Section 111(b) of the Clean Air Act,[6] the EPA has crafted proposed regulations that would establish standards related to methane and VOC emissions from certain new and modified oil and gas sources. In releasing the proposed regulations, it highlighted methane's potency as a greenhouse gas and noted that the oil and gas industry is "currently one of the largest emitters of methane."[7]

Under Section 111(b), the EPA may, by regulation, set "standards of performance" for new and modified sources of air pollutant emissions that fall within a category of stationary sources that it has judged and published to be one that "causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare."[8] A "standard of performance," in this context, is a standard for limiting air pollutant emissions that, "taking into account the cost of achieving such reduction and any non-air quality health and environmental impact and energy requirements," is based on the "best system of emission reduction" that has been "adequately demonstrated."[9]

Relying on these principles, the EPA issued regulations in 2012 that establish new source standards of performance for VOC and sulfur dioxide emissions from various types of new and modified oil and gas sources.[10] Those regulations are codified at 40 C.F.R. Part 60, Subpart OOOO ("Quad-O")[11] and set standards that address emissions from, in particular, the following sources: hydraulically fractured gas wells; certain fugitive equipment components at onshore gas processing plants; gas-sweetening units at those plants; and centrifugal compressors, reciprocating compressors, continuous-bleed pneumatic controllers, and storage vessels to the extent that they are used in one or more industry segments. The EPA designed the Quad-O standards to achieve reductions in methane emissions, but only as a "co-benefit" to reducing VOC and sulfur dioxide emissions.

In an effort to build on the Quad-O standards, the EPA's proposed regulations would directly regulate methane and VOC emissions from various types of new and modified oil and gas sources. Some of those sources are already regulated under Quad-O, while others - like hydraulically fractured oil wells, pneumatic pumps, and certain equipment and components at gas well sites and compressor stations - would be covered for the first time.

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[5] *See* EPA, "Natural Gas STAR Methane Challenge Program Proposal," available at http://www.epa.gov/gasstar/methanechallenge/index.html.

[6] 42 U.S.C. § 7411(b).

[7] 80 Fed. Reg. 56593 (Sept. 18, 2015).

[8] 42 U.S.C. § 7411(b)(1)(A).

[9] *Id.* § 7411(a)(1).

[10] *See* 77 Fed. Reg. 49490 (Aug. 16, 2012).

[11] The EPA most recently revised Quad-O in the summer of 2015. *See* 80 Fed. Reg. 48262 (Aug. 12, 2015).

The standard for fugitive emissions at gas well sites, as one example, would require a well operator to periodically (as often as quarterly) use a leak detection device to survey the well site for leaks of methane and VOCs and then repair any leaks that it discovered as a result of that process. The survey would need to cover a wide variety of components, including valves, connectors, pressure-relief devices, open-ended lines, access doors, flanges, crank case vents, pump seals or diaphragms, closed vent systems, compressors, separators, dehydrators, and thief hatches on storage tanks. The EPA, in soliciting public comment on this proposed standard, has called out several specific issues for commentary, including "criteria that could be used to determine whether a corporate-wide leak detection and repair program, which some owners and operators already have in place, could be deemed to meet the requirements in the proposed rule."[12]

Draft Control Techniques Guidelines for Existing Sources in Ozone Nonattainment Areas and the Ozone Transport Region

The EPA also released draft Control Techniques Guidelines to reduce emissions from existing oil and gas facilities located in certain ozone nonattainment areas and states in the Ozone Transport Region. These guidelines would lead to direct regulation of VOC emissions, but would also have the effect of reducing methane emissions.

Under Section 182(b)(2) of the Clean Air Act,[13] the EPA's issuance of CTGs triggers a requirement for states to develop, and submit to the agency, rules that impose reasonably available control technology ("RACT") requirements on covered sources as part of their State Implementation Plans ("SIPs"). Each CTG includes RACT recommendations reflecting the EPA's determination as to what constitutes an adequate level of VOC control for the sources it covers.[14] While state regulations can deviate from the EPA's RACT recommendations, the EPA's approval of each SIP revision is ultimately required. Imposition of RACT would be a new layer of regulation for many oil and gas facilities located in ozone nonattainment areas and the Ozone Transport Region (which is comprised of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, the District of Columbia, and Northern Virginia).[15]

The draft CTGs for the oil and natural gas industry include RACT recommendations for storage tanks, pneumatic controllers, pneumatic pumps, centrifugal and reciprocating compressors, equipment leaks from natural gas processing plants, and fugitive emissions from well sites and compressor stations. Many of the RACT recommendations are similar to the VOC requirements under the EPA's 2012 Quad-O rules and the newly proposed § 111(b) rules, discussed above. The draft CTGs also include information on the costs of available controls and model rule language that states can adopt if they choose to implement EPA's RACT recommendations. In the draft CTGs, the EPA is proposing a two-year period (measured from the date of the guidelines' final issuance) for states to submit their SIP revisions imposing RACT requirements on covered sources.

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[12] EPA, "Summary of Proposed Requirements for Processes and Equipment at Natural Gas Well Sites" (August 2015) at 1-2, available at http://www.epa.gov/airquality/oilandgas/pdfs/20120417summarywellsites.pdf.

[13] 42 U.S.C. § 7511a(b)(2); *see also id.* § 7511c(b)(1)(B).

[14] See 62 Fed. Reg. 44672, 44674 (Aug. 22, 1997).

[15] *See* 42 U.S.C. § 7511c(a).

In the Notice of Availability announcing the release of the draft CTGs, the EPA has specifically solicited comments on several issues, including (1) the costs associated with retrofitting existing storage vessels and (2) the use of optical gas imaging for fugitive emissions at existing well sites.[16] EPA will accept public comment on the draft CTGs for the next 60 days, until November 17, 2015.

Proposed Expansion of Natural Gas STAR Program

As a companion effort to curb methane and VOC emissions from oil and gas facilities, the EPA, in July of 2015, proposed to expand its Natural Gas STAR Program.

The Natural Gas STAR Program is an initiative that is designed to encourage members of the oil and gas industry to voluntarily reduce methane emissions from their facilities.[17] If a company opts to participate in the program, it signs a memorandum of understanding that reflects its intent to evaluate technologies and practices for reducing methane emissions, use them in its facilities when it is cost effective to do so, and report to EPA on those efforts.[18] The company, in turn, develops and executes a continuously evolving plan for implementing and tracking "non-regulatory" steps for reducing methane emissions from its facilities.[19] Then, each year, it submits a "progress report" to the EPA in which it documents (for the year) the activities that it has undertaken, and emissions-reductions that it has achieved, under its plan.[20]

The EPA proposes to expand this program by adopting and implementing the Natural Gas STAR Methane Challenge Program ("Methane Challenge"). As a participant in the Methane Challenge, a company would have two options for voluntarily reducing methane emissions.

First, the company could commit to "company-wide implementation of best practices to reduce methane emissions from key sources by a future date[.]"[21] The company, in particular, would select one or more of its key emissions sources and then identify the timing for achieving company-wide implementation of EPA-designated best management practices for each source, "as appropriate to their historic progress and anticipated ability to meet commitments."[22] The EPA proposes, however, that "full completion of commitments should not exceed five years from the commitment date."[23]

Second, the company could participate in the One Future program, which is an existing industry-led partnership. Under this option, the company would commit to achieve "a specified average rate of emissions intensity across all facilities within a specific segment by

[16] 80 Fed. Reg. 56577, 56578 (Sept. 18, 2015).

[17] *See* EPA, "Key Components of Natural Gas STAR," available at http://www.epa.gov/gasstar/guidelines/keycomponents.html.

[18] *Id.*

[19] *Id.*

[20] *Id.*

[21] EPA, "Natural Gas STAR Methane Challenge Program: Proposed Framework" (July 23, 2015) at 7, available at http://www.epa.gov/gasstar/documents/methane_challenge_proposal_072315.pdf.

[22] *Id*.

[23] *Id.*

2025."[24] The company, moreover, would agree to demonstrate progress towards achieving that goal by using "specific reporting protocols."[25]

According to the EPA, "[b]oth options represent expanded, transparent voluntary commitments by partner companies that will drive further voluntary action to reduce oil and gas methane emissions."

The EPA will accept public comments on the proposed Methane Challenge until October 13, 2015.[26]

Proposed Single Source Determination Amendments: Defining "Adjacent"

Finally, on August 18, the EPA also proposed two options for defining the term "adjacent" for the purpose of making "single source determinations" in the oil and gas sector. The outcome of this rulemaking will dictate the circumstances under which the EPA aggregates emissions from oil and gas facilities - a process that can trigger the need to comply with the EPA's costly and time-consuming "major source" permit programs.

As explained in greater detail in prior K&L Gates alerts,[27] under the Clean Air Act, a "stationary source" is defined as "any building, structure, facility, or installation" that emits air pollutants.[28] Under existing EPA regulations, three requirements must be satisfied in order for a group of pollutant-emitting activities to be considered part of a single "building, structure, facility or installation": (1) the activities must belong to the same industrial grouping (which is determined with reference to whether they have the ***same primary SIC code***), (2) the activities must be under ***common control*** of the same person or corporate entity, and (3) the activities must be located on one or more contiguous or ***adjacent*** properties.[29] Ultimately, as explained by the U.S. Court of Appeals for the D.C. Circuit in *Alabama Power Co. v. Costle* (1979), the "EPA cannot treat … units as a single source unless they fit within the four permissible statutory terms."[30] In the EPA's own words, the statute requires that the regulatory definitions approximate the "common sense notion of 'plant'[.]"[31]

In the oil and gas context, the concept of adjacency has been subject to different and evolving interpretations since the EPA last substantively amended its regulations in 1980.[32] In 2012, in *Summit Petroleum Corp. v. EPA*, the United States Court of Appeals for the Sixth Circuit rejected the EPA's broad interpretation of its own regulations, under which it had aggregated emissions from physically distant facilities based on their "functional interdependence."[33] The court directed the EPA to instead apply the "ordinary, i.e., physical and geographical, meaning of" the term "adjacent."[34] Then, in 2014, the D.C. Circuit directed

[24] *Id*. at 8.
[25] *Id.*
[26] *See* EPA, "Natural Gas STAR Methane Challenge Program Proposal," available at http://www.epa.gov/gasstar/methanechallenge/.
[27] Our prior alerts regarding single source determinations are available here, here, and here.
[28] 42 U.S.C. § 7411(a)(3).
[29] *See*, *e.g.*, 40 C.F.R. § 52.21(b)(6).
[30] 636 F.2d 323, 397.
[31] Pre-publication proposal at 9, available at http://www.epa.gov/airquality/oilandgas/pdfs/sd_prop_081815.pdf (citing 45 Fed. Reg. 52676, 52694 (Aug. 7, 1980)).
[32] *See* 45 Fed. Reg. 52676 (Aug. 7, 1980).
[33] 690 F.3d 733 (6th Cir. 2012).
[34] *Id.* at 735.

the EPA to apply the Sixth Circuit's interpretation of adjacency nationwide, unless and until it either amended its single source determination rules or its regional consistency rules. The EPA released proposed amendments to its regional consistency rules on August 5, which would allow its regions to apply Clean Air Act requirements differently in different parts of the country as necessary to adhere to differing federal court decisions.[35] Then, on August 18, the EPA proposed amendments to its single source determination rules.

In the proposed amendments, the EPA set forth two options for defining the term "adjacent" as it relates to sources in the oil and gas sector:

- The first option, which the agency prefers, would define adjacency solely based on proximity. Under this definition, sources would be considered adjacent "if they are located on the same surface site, or on surface sites that are located within ¼ mile of one another."[36] Sources on sites further than ¼ mile apart would categorically be considered separate from one another. The "EPA believes this straightforward definition will clarify permitting, compliance and enforcement for state, local and tribal air agencies, source operators and other interested parties."[37]
- The second option would mandate that the EPA take into account both the proximity and functional interrelatedness of sources when making single source determinations. Under this option, the EPA would consider activities to be adjacent if they are *either* (1) separated by a distance of less than ¼ mile *or* (2) separated by a distance of ¼ mile or more, but have an "exclusive functional interrelatedness."[38]

In effect, the second option would codify the EPA's pre-*Summit* policy of aggregating emissions based on the somewhat amorphous notion of "functional interrelatedness." This option would not only be more burdensome for the regulated community, but it is also arguably inconsistent with the controlling language of the Clean Air Act, as interpreted by the D.C. Circuit in *Alabama Power Co. v. Costle*, because it would cause facilities to be treated together as a single source even though they do not fit within the ordinary meaning of a single "building, structure, facility, or installation." The first option, on the other hand, would bring much needed clarity and consistency to an area of the law that has for too long been subject to the whims of changing EPA administrations and permit writers.

The EPA will take public comment on both options until November 17, 2015.

Conclusion

The EPA's proposed regulatory actions represent an aggressive strategy for achieving reductions in methane and VOC emissions from oil and gas facilities. While these proposals, according to the EPA, "will help ensure safe and responsible oil and natural gas development," they will also significantly increase regulatory compliance costs for the industry. [39]

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[35] *See* 80 Fed. Reg. 50250 (Aug. 19, 2015).

[36] 80 Fed. Reg. 56579, 56590 (Sept. 18, 2015).

[37] *See* EPA, "Proposed Clarification of Air Permitting Rules for the Oil and Gas Industry: Fact Sheet" (August 2015) at 2, *available at* http://www.epa.gov/airquality/oilandgas/pdfs/sd_prop_fs_081815.pdf.

[38] 80 Fed. Reg. 56579, 56590 (Sept. 18, 2015).

[39] EPA, "Proposed Climate, Air Quality and Permitting Rules for the Oil and Natural Gas Industry: Fact Sheet" (August 2015) at 2 & 6, available at http://www.epa.gov/airquality/oilandgas/pdfs/og_fs_081815.pdf.

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As the EPA works towards finalizing its proposals, industry members should carefully monitor and participate in the process as zealous advocates for their interests.

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