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EPA's Recent Methane Regulations: Legal Overview

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Summary

President Obama's "Climate Action Plan" aims to reduce emissions of carbon dioxide (CO₂) and other greenhouse gases (GHGs). One of the initiatives within the Plan focuses on the control of emissions of methane, a short-lived climate pollutant. In 2014, the U.S. Environmental Protection Agency (EPA) and other federal agencies developed an interagency "Strategy to Reduce Methane Emissions" (Methane Strategy) that outlined voluntary actions and potential agency rulemakings to cut methane emissions.

In response to the Methane Strategy, EPA published new and updated standards of performance (commonly referred to as new source performance standards, or NSPSs) on June 3, 2016, for GHGs (in the form of methane limitations) and volatile organic compounds emissions from new, modified, and reconstructed equipment, processes, and activities across the oil and natural gas sector pursuant to Section 111 of the Clean Air Act (CAA). In addition, on August 29, 2016, EPA published its updated NSPSs to reduce municipal solid waste (MSW) landfill gas emissions, including methane emissions, from landfills built, modified, or reconstructed after July 17, 2014. The agency also revised emission guidelines established in 1996 for existing landfills operating prior to that date.

North Dakota, Texas, a coalition of 14 other states, and various gas associations filed petitions for review of the final oil and gas rule in the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit). Nine states and the city of Chicago moved to intervene on behalf of EPA to support the final rule. In addition, several environmental advocacy groups filed their own motion to intervene in the case. This report examines a few potential issues that may be raised in the litigation, primarily drawn from comments submitted to EPA on the proposed rule.

It is uncertain whether the revised MSW landfill NSPSs and emission guidelines will be challenged in court. Petitions for legal review of the rule and guidelines must be filed no later than October 28, 2016. This report analyzes EPA's authority to revise the 1996 emission guidelines for existing MSW landfills—an issue raised in comments on the proposed landfill emission guidelines.

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Background

On June 25, 2013, President Obama announced a national “Climate Action Plan” (CAP) to reduce emissions of carbon dioxide (CO₂) and other greenhouse gases (GHGs), as well as to encourage adaptation to a changing climate.¹ One of the initiatives within the CAP focuses on the control of methane emissions, a short-lived climate pollutant with a Global Warming Potential² of more than 25 times CO₂.³

Under provisions in the CAP, the Administration tasked the U.S. Environmental Protection Agency (EPA) and other federal agencies with developing an interagency “Strategy to Reduce Methane Emissions” (Methane Strategy) that outlines voluntary actions and potential agency rulemakings to cut methane emissions.⁴ On January 14, 2015, the Administration announced a new goal to cut methane emissions from the oil and gas sector by 40% to 45% from 2012 levels by 2025.⁵

In response to the Methane Strategy, EPA published new and updated standards of performance (commonly referred to as new source performance standards, or NSPSs) on June 3, 2016, for GHGs (in the form of methane limitations) and volatile organic compounds (VOCs) emissions from new, modified, and reconstructed equipment, processes, and activities across the oil and natural gas sector pursuant to Section 111 of the Clean Air Act (CAA).⁶ In addition, on August 29, 2016, EPA published its updated NSPSs to reduce landfill gas emissions, including methane emissions, from municipal solid waste landfills built, modified, or reconstructed after July 17, 2014.⁷ The agency also revised emission guidelines established in 1996 for existing landfills

¹ Exec. Off. of the President, The President’s Climate Action Plan (2013), *available at* <http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf>. For additional background on the Climate Action Plan, see CRS Report R43120, *President Obama’s Climate Action Plan*, coordinated by (name redacted).

² The Global Warming Potential (GWP) is a metric adopted by EPA to compare the climate impacts of different gases. EPA, *Understanding Global Warming Potentials*, <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>. The GWP measures the total energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of CO₂. *Id.*

³ Methane (CH₄) is estimated to have a GWP of 28–36 over 100 years. *Id.* EPA’s *Inventory of U.S. Greenhouse Gas Emissions and Sinks* and Greenhouse Gas (GHG) Reporting Program follow the international GHG reporting standards under the United Nations Framework Convention on Climate Change’s guidelines, which require the use of GWP values from the Intergovernmental Panel on Climate Change’s (IPCC’s) Fourth Assessment Report, published in 2007. *Id.* The Report lists a GWP of 25 for methane. IPCC, *Fourth Assessment Report: Climate Change* (2007), *available at* https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html. For additional information on the GWP of methane, see CRS Report R43860, *Methane: An Introduction to Emission Sources and Reduction Strategies*, coordinated by (name redacted).

⁴ Exec. Off. of the President, Climate Action Plan: Strategy to Reduce Methane Emissions 1-2 (2014), *available at* https://www.whitehouse.gov/sites/default/files/strategy_to_reduce_methane_emissions_2014-03-28_final.pdf. For additional information and background on methane and the Methane Strategy, see CRS Report R43860, *Methane: An Introduction to Emission Sources and Reduction Strategies*, coordinated by (name redacted).

⁵ Press Release, Exec. Off. of the President, FACT SHEET: Administration Takes Steps Forward on Climate Action Plan by Announcing Actions to Cut Methane Emissions, *available at* <https://www.whitehouse.gov/the-press-office/2015/01/14/fact-sheet-administration-takes-steps-forward-climate-action-plan-anno-1>.

⁶ Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, Final Rule, 81 Fed. Reg. 35,824 (June 3, 2016) (to be codified at 40 C.F.R. pt. 60, subpts. OOOO and OOOOa) (hereinafter “2016 Oil & Gas NSPS”); 42 U.S.C. §7411.

⁷ Standards of Performance for Municipal Solid Waste Landfills, Final Rule, 81 Fed. Reg. 59,332 (August 29, 2016) (to be codified at 40 C.F.R. pt. 60, subpt. XXX) (hereinafter “2016 Landfill NSPS”).

operating prior to that date.⁸ These rulemakings, for the most part, update previously issued NSPSs and emission guidelines for new and existing emission sources under CAA Section 111.

CAA Section 111(b) directs EPA to establish standards of performance for listed categories of new, modified, or reconstructed stationary sources that “cause[], or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.”⁹ A “standard of performance” is defined for Section 111 as an air pollution emission standard that reflects the “best system of emission reduction” (BSER) that has been “adequately demonstrated.”¹⁰ In determining the BSER, EPA must take into account the cost of achieving the emission reductions; non-air-quality health and environmental impacts; and energy requirements of the regulated sources.¹¹

At the same time or after the Section 111(b) standards are issued for new, modified, and reconstructed sources, EPA must also establish, under certain circumstances, standards of performance for *existing* sources in that category pursuant to Section 111(d)—the authority that EPA used to issue the Clean Power Plan (CPP) to regulate GHG emissions from existing power plants.¹² EPA refers to these 111(d) standards as “emission guidelines.”¹³ Congress established a single definition for standards of performance promulgated pursuant to Sections 111(b) and 111(d), requiring EPA to consider the same factors when establishing standards of performance for new, modified, reconstructed, and existing sources.¹⁴

These 111(d) guidelines establish binding requirements that states are required to address when they develop plans to implement standards of performance for existing sources in their jurisdictions.¹⁵ Section 111(d) directs EPA to establish state plan “procedures” similar to Section 110 of the CAA, which requires states to develop and revise implementation plans to achieve EPA’s national ambient air quality standards (NAAQS) and subsequent changes to those standards.¹⁶ In addition to the CPP and the 1996 guidelines for landfills, EPA has issued Section 111(d) emission guidelines to address acid mist from sulfuric acid production units; fluoride

⁸ Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills; Final Rule, 81 Fed. Reg. 59,276 (August 29, 2016) (to be codified at 40 C.F.R. pt. 60, subpt. WWW) (hereinafter “2016 Landfill Emission Guidelines”).

⁹ 42 U.S.C. §7411(b)(1)(A). For example, EPA added “municipal solid waste landfills” as a Section 111 source category “because, in the judgement of the [EPA] Administrator, it contributes significantly to air pollution which may reasonably be anticipated to endanger public health and welfare.” Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills, 61 Fed. Reg. 9,905 (March 12, 1996). See also Priority List and Additions to the List of Categories of Stationary Sources; Final Rule, 44 Fed. Reg. 49,222, 49,226 (August 21, 1979) (listing “crude oil and natural gas production” as a source category under Section 111). Once EPA has promulgated new standards, states are allowed to develop and submit to EPA for approval a procedure for implementing and enforcing the standards of performance for new, modified, or reconstructed stationary sources. 42 U.S.C. §7411(b)(6). If the state procedure is approved, EPA will delegate implementation and enforcement authority to the state. *Id.*

¹⁰ 42 U.S.C. §7411(a).

¹¹ *Id.*

¹² *Id.* §7411(d)(1). For more information about the Clean Power Plan, see CRS Report R44341, *EPA’s Clean Power Plan for Existing Power Plants: Frequently Asked Questions*, by (name redacted) et al.

¹³ See generally 2016 Landfill Emission Guidelines, *supra* note 8.

¹⁴ Compare 42 U.S.C. §7411(b)(1)(B) (requiring EPA to establish “standards of performance”), with 42 U.S.C. §7411(d)(1) (requiring EPA to establish a procedure “under which each State shall submit ... a plan which ... establishes standards of performance for any existing source”). The definition of “standards of performance” is provided under 42 U.S.C. §7411(a)(1), and applies to the provisions under Section 111.

¹⁵ 42 U.S.C. §7411(d)(1).

¹⁶ *Id.*; see also 42 U.S.C. §7410.

emissions from phosphate fertilizer plants; reduced sulfur emissions from kraft pulp mills; and fluoride emissions from primary aluminum plants.¹⁷

Regulations Targeting Methane and VOC Emissions from Oil and Gas Operations

In 2012, EPA issued a final rule setting standards of performance to limit emissions of VOCs from new, reconstructed, and modified sources in the oil and gas industry pursuant to CAA Section 111(b) (2012 NSPS).¹⁸ In an effort to achieve the Administration's goal of reducing methane emissions from the oil and gas sector and respond to petitions for reconsideration of the 2012 NSPS to address methane emissions,¹⁹ EPA proposed a rule revising and updating the 2012 NSPS in August 2015.²⁰ After receiving over 900,000 comments, the agency issued the final rule on June 3, 2016.²¹

EPA's final rule amends the 2012 NSPS, expanding the emission sources covered by the rule and establishing performance standards for GHGs (in the form of methane limitations) from a number of oil and gas emission sources.²² The final rule establishes, among other things,

- methane and VOC standards for emission sources and equipment not regulated under the 2012 NSPS, including hydraulically fractured oil well completions; pneumatic pumps; and fugitive emissions from well sites and compressor stations; and
- methane emission standards for hydraulically fractured gas well completions and equipment leaks at natural gas processing plants that are currently regulated under the 2012 NSPS for VOC, but not for GHG, emissions.²³

The final rule applies only to equipment, processes, and activities in the production, processing, transmission, and storage phases of oil and natural gas systems constructed or modified after July

¹⁷ See 80 Fed. Reg. 64,662 (October 23, 2015); 61 Fed. Reg. 9,905 (March 12, 1996); 60 Fed. Reg. 65,387 (December 19, 1995); 45 Fed. Reg. 26,294 (April 17, 1980); 44 Fed. Reg. 29,828 (May 22, 1979); 42 Fed. Reg. 12,022 (March 1, 1977). In addition, EPA's 2005 Clean Air Mercury Rule (CAMR) delisted coal-fired power plants from CAA Section 112 and, instead, established a cap-and-trade system for mercury under Section 111(d). 70 Fed. Reg. 28,606 (May 18, 2005). The D.C. Circuit Court vacated CAMR in 2008 on grounds unrelated to the guidelines' substantive requirements. See *New Jersey v. EPA*, 517 F.3d 574, 581-84 (D.C. Cir. 2008) (holding that EPA's delisting of the source category from Section 112 was unlawful and that EPA was obligated to promulgate standards for mercury and other hazardous air pollutants under Section 112).

¹⁸ Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews; Final Rule, 77 Fed. Reg. 49,542 (August 16, 2012) (codified at 40 C.F.R. pt. 60, subpt. OOOO).

¹⁹ See e.g., Clean Air Council et al., Petition for Reconsideration, In the Matter of: Final Rule Published at 77 FR 49490 (August 16, 2012), titled "Oil and Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews; Final Rule," Docket ID No. EPA-HQ-OAR-2010-0505, RIN 2060-AP76 (2012).

²⁰ Oil and Natural Gas Sector: Emission Standards for New and Modified Sources; Proposed Rule, 80 Fed. Reg. 56,593 (September 18, 2015).

²¹ 2016 Oil & Gas NSPS, *supra* note 6, at 35,840, 35,848. The rule took effect on August 2, 2016, and remains in effect during litigation unless the petitioners seek and are granted a stay of implementation of the rule by the court. *Id.* at 35,824.

²² *Id.* at 35,825.

²³ *Id.* at 35,825-826.

17, 2014; it does not apply to distribution entities.²⁴ EPA notes that while the new methane standards cover many sources, those sources already complying with the 2012 NSPS are not likely to be required to install additional emissions controls, as VOC controls also curb methane emissions.²⁵ EPA estimates that the standards for new and modified sources are expected to reduce 510,000 short tons of methane in 2025, with estimated costs of \$530 million and “climate benefits” of \$690 million by 2025.²⁶

While the final rule affects new and modified oil and gas operations, EPA also released a proposed Information Collection Request (ICR) that will require oil and natural gas companies to supply information on their existing oil and gas sources.²⁷ The data obtained from the ICR may ultimately provide the basis for EPA to craft guidelines for methane and VOC emissions for existing oil and gas sources under Section 111(d) of the CAA.²⁸

Petitions for Review

The deadline to file petitions for review of the final rule with the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) was August 2, 2016.²⁹ North Dakota was the first to file a petition for review, on July 15, 2016.³⁰ Soon after, Texas (including the Railroad Commission of Texas and the Texas Commission on Environmental Quality as named parties),³¹ a coalition of 14 states (including several state agencies),³² and various gas associations filed petitions for review of the final rule.³³ Nine states and the city of Chicago moved to intervene on behalf of EPA to support the final rule.³⁴ In addition, environmental advocacy groups filed their own motion to intervene in the case.³⁵ All petitions have been consolidated with the lead case, *North Dakota v. EPA*.³⁶

²⁴ *Id.* at 35,843-848.

²⁵ EPA, EPA's Actions to Reduce Methane Emissions from the Oil and Natural Gas Industry: Final Rules and Draft Information Collection Request, at 2, <https://www3.epa.gov/airquality/oilandgas/may2016/nsps-overview-fs.pdf>.

²⁶ 2016 Oil & Gas NSPS, *supra* note 6, at 35,827.

²⁷ Proposed Information Collection Request; Comment Request; Information Collection Effort for Oil and Gas Facilities, 81 Fed. Reg. 35,763 (June 3, 2016).

²⁸ 2016 Oil & Gas NSPS, *supra* note 6, at 35,764.

²⁹ *Id.* at 35,828.

³⁰ Pet. for Review, *North Dakota v. EPA*, No. 16-1242 (D.C. Cir. July 15, 2016).

³¹ Pet. for Review, *Texas et al. v. EPA*, No. 16-1257 (D.C. Cir. July 28, 2016).

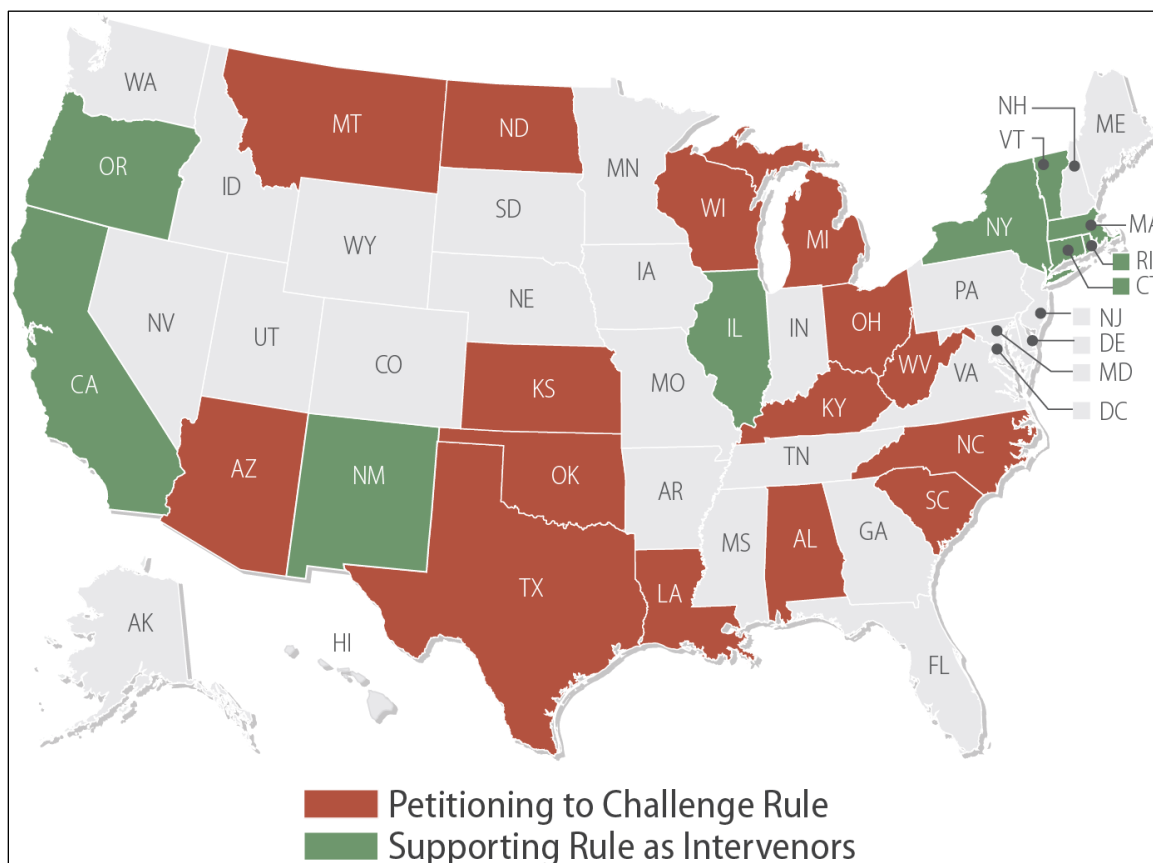
³² Pet. for Review, *West Virginia et al. v. EPA*, No. 16-1264 (D.C. Cir. August 2, 2016). Besides West Virginia, the state coalition includes Alabama, Arizona, Kansas, Kentucky, Louisiana, Attorney General Bill Schuette for the people of Michigan, Montana, Ohio, Oklahoma, South Carolina, Wisconsin, Kentucky Energy and Environment Cabinet, and the North Carolina Department of Environmental Quality. *Id.*

³³ Pet. for Review, *W. Energy Alliance v. EPA*, No. 16-1266 (D.C. Cir. August 2, 2016); Pet. for Review, *Indep. Petroleum Ass'n of Am. et al. v. EPA*, No. 16-1262 (D.C. Cir. August 2, 2016); Pet. for Review, *Interstate Nat. Gas Ass'n*, No. 16-1263 (D.C. Cir. August 2, 2016); Pet. for Review, *GPA Midstream Gas Ass'n*, No. 16-1267 (D.C. Cir. August 2, 2016); Pet. for Review, *Texas Oil & Gas Ass'n*, No. 16-1269 (D.C. Cir. August 2, 2016); Pet. for Review, *Am. Petroleum Inst.*, No. 16-1270 (D.C. Cir. August 2, 2016).

³⁴ Unopposed Mot. California, Connecticut, Illinois, New Mexico, New York, Oregon, Rhode Island, Vermont, Massachusetts, and the City of Chicago for Leave to Intervene as Resp'ts, *North Dakota v. EPA*, No. 16-1242 (D.C. Cir. August 15, 2016).

³⁵ Nat. Res. Def. Council, Env'tl. Def. Fund, Sierra Club, Clean Air Council, Earthworks, and Env'tl. Integrity Project Mot. to Intervene as Resp'ts, *North Dakota v. EPA*, No. 16-1242 (D.C. Cir. August 15, 2016).

³⁶ See Clerk's Order, *North Dakota v. EPA*, No. 16-1242 (D.C. Cir. August 8, 2016).

Figure I. States Participating in Oil & Gas NSPSs LitigationConsolidated Petitions: *North Dakota v. EPA*, D.C. Cir. No. 16-1242

Source: Prepared by CRS from litigation filings in *North Dakota v. EPA*, D.C. Cir. No. 16-1242.

Notes: The Kentucky Energy and Environment Cabinet is a petitioner, in addition to the Commonwealth of Kentucky. The city of Chicago has also moved to intervene in support of EPA, in addition to the state of Illinois.

Possible Legal Issues

North Dakota and the Western Energy Alliance have filed their preliminary statements of issues to be raised in the litigation.³⁷ Other petitioners will follow and file their statements of issues by the court-designated deadline of September 7, 2016.³⁸ These preliminary statements of issues present the legal issues that will be litigated.³⁹ The final statement of issues will be presented in the petitioners' briefs.⁴⁰ This report does not aim to provide a comprehensive preview of the potential legal arguments that may be presented to the court for or against EPA's final rule. The sections below offer a few potential arguments, primarily drawn from comments submitted to EPA on the proposed rule, to illustrate some potential issues that may be raised in litigation.

³⁷ Pet'r N.D.'s Statement of Issues to be Raised, *North Dakota v. EPA*, No. 16-1242 (D.C. Cir. August 22, 2016) (hereinafter "N.D. Statement of Issues"); Pet'r W. Energy Alliance's Non-Binding Statement of Issues to be Raised, *North Dakota v. EPA*, No. 16-1242 (D.C. Cir. September 1, 2016) (hereinafter "WEA Statement of Issues").

³⁸ Clerk's Order, *North Dakota v. EPA*, No. 16-1242 (D.C. Cir. August 8, 2016).

³⁹ See *id.*; D.C. Cir. R. 15(c).

⁴⁰ D.C. Cir. R. 28(a)(5).

Endangerment Finding under CAA Section 111(b)

CAA Section 111 requires EPA to first establish a list of source categories to be regulated, and then establish emission standards for new sources in that source category.⁴¹ Section 111(b)(1)(A) requires that a source category be included on the list if, “in [the EPA Administrator’s] judgment it causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.”⁴² EPA commonly refers to this determination as an “endangerment finding.”⁴³ In 1979, EPA listed “crude oil and natural gas production” as a source category under Section 111 based on its “endangerment finding.”⁴⁴

North Dakota’s and the Western Energy Alliance’s statements of issues and two petitioners’ comments on the proposed rule raise the issue of whether EPA failed to make the required “endangerment finding” for methane from the oil and gas sector under CAA Section 111.⁴⁵ One comment states that Section 111(b) requires EPA to make “endangerment findings” for particular pollutants such as methane that it seeks to regulate for listed source categories.⁴⁶ It argues that “the statute permits EPA to regulate stationary sources that emit pollutants that may reasonably be anticipated to endanger public health or welfare *for those pollutants* which led to the endangerment finding and to which the source category significantly contributes. It does not grant EPA unlimited authority to regulate *any* pollutant emitted by that source.”⁴⁷ In addition, the comment states that EPA cannot rely on the December 2009 “endangerment finding” for motor vehicles under CAA Section 202(a), in which the agency determined that “six greenhouse gases taken in combination endanger both the public health and the public welfare.... It is unlawful for EPA to regulate only methane based on an endangerment finding that is largely attributable to other pollutants.”⁴⁸

In the proposed rule, EPA states that it is not required to make a new “endangerment finding”

as a prerequisite for regulating a particular pollutant [such as methane]. Rather, once the EPA has determined that the source category causes, or contributes significantly to, air pollution that may reasonably be anticipated to endanger public health or welfare, and has listed the source category on that basis, the EPA interprets section 111(b)(1)(A) to provide authority to establish a standard for performance for any pollutant emitted by that source category as long as the EPA has a rational basis for setting a standard for the pollutant.⁴⁹

⁴¹ 42 U.S.C. §7411(b)(1).

⁴² *Id.* §7411(b)(1)(A).

⁴³ 2016 Oil & Gas NSPS, *supra* note 6, at 35,828.

⁴⁴ Priority List and Additions to the List of Categories of Stationary Sources; Final Rule, 44 Fed. Reg. 49,222, 49,226 (August 21, 1979).

⁴⁵ See N.D. Statement of Issues, *supra* note 37; WEA Statement of Issues, *supra* note 37; Comments from Howard Feldman, Sen. Dir., Am. Petroleum Inst., to Gina McCarthy, Admin., EPA (December 4, 2015), at 5-8 (hereinafter “API Comments”); Comments from Howard Feldman, Sen. Dir., Am. Petroleum Inst., to Gina McCarthy, Admin., EPA (December 4, 2015); Comments from Kathleen M. Sgamma, V.P. of Govt. & Public Aff., W. Energy Alliance, to Gina McCarthy, Admin., EPA (December 4, 2015).

⁴⁶ API Comments, at 5-6.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ Oil and Natural Gas Sector: Emission Standards for New and Modified Sources; Proposed Rule, 80 Fed. Reg. 56,593, 56,601 (September 18, 2015).

In the proposal, EPA argues that it has a “rational basis” for setting the GHG standards in the form of methane limitations based on the previous 1979 “endangerment finding” because the agency (1) is not listing a new source category under CAA Section 111(b); (2) has discretion to specify what pollutants should be regulated once a source category is listed; and (3) is providing information and analysis on GHGs, VOCs, and sulfur dioxide (SO₂) used to make the 2009 “endangerment finding” and new scientific studies and observations after 2009 to determine that “the oil and natural gas source category contributes significantly to air pollution which may reasonably be anticipated to endanger public health or welfare.”⁵⁰

However, in the final rule, EPA appears to deemphasize its “rational basis” arguments. Unlike in the proposed rule, EPA does not discuss its discretion to regulate specific pollutants for a previously listed source category, but relies primarily on its previous 1979 “endangerment finding” as its authority to issue new and updated NSPSs for methane and VOC emissions.⁵¹ EPA reiterates that the GHG is the “regulated pollutant,” and the standards are expressed in the form of limitations on methane emissions.⁵² In the response to comments section of the final rule, EPA argues that the agency does not need to make a separate “endangerment finding” for methane because the “2009 Endangerment Finding that defines the aggregate group of six well-mixed [GHGs] as the air pollution addresses emissions of any individual component of that aggregate group and, therefore, supports the rational basis for this final rule.”⁵³ Similar to the proposed rule, the final rule also includes a new “endangerment finding” based on previous and new scientific analyses, and states that “to the extent such a finding were necessary, pursuant to section 111(b)(1)(A), the Administrator hereby determines that, in her judgment, this source category, as defined above, contributes significantly to air pollution which may reasonably be anticipated to endanger public health or welfare.”⁵⁴

Scope of the Oil and Gas Source Category

In the one petitioner’s statement of issues and comments on the proposed rule, the petitioner and one commentator also argue that EPA has “unlawfully” expanded the listed oil and natural gas sector source category to additional types of emission sources not previously regulated, such as hydraulically fractured oil well completions; pneumatic pumps; and fugitive emissions from well sites and compressor stations.⁵⁵ One commentator states that EPA is “incorrect that the 1979 original source category determination can be read to include the numerous smaller emissions points by this proposal. The 1979 listing was focused on major-emitting operations and cannot be reasonably construed as encompassing small, discrete sources that exist separate and apart from a large facility, like a processing plant.”⁵⁶

In the final rule, EPA argues that the final rule does not expand the oil and gas source category. It states that 1979 source category listing of “crude oil and natural gas production” broadly covers the natural gas industry including production, processing, transmission, and storage of oil and natural gas.⁵⁷ EPA points to the 1979 source category listing analysis that indicated that EPA

⁵⁰ *Id.*

⁵¹ 2016 Oil & Gas NSPS, *supra* note 6, at 35,833.

⁵² *Id.* at 35,877.

⁵³ *Id.*

⁵⁴ *Id.* at 35,833.

⁵⁵ API Comments, *supra* note 45, at 2-4; see also WEA Statement of Issues, *supra* note 37.

⁵⁶ API Comments, *supra* note 45, at 4.

⁵⁷ 2016 Oil & Gas NSPS, *supra* note 6, at 35,832.

evaluated emissions from various segments of the natural gas industry, such as production and processing.⁵⁸ The agency argues that it provided notice in the rulemaking that smaller sources emitting less than 100 tons of emissions could be subject to NSPSs even though the 1979 listing of the “crude oil and natural gas production” was classified under the “major source categories.”⁵⁹ EPA also highlights the 1984 proposed NSPSs to limit VOC emissions from specific equipment in the natural gas production industry to support the broad scope of the oil and natural gas source category.⁶⁰ The 1984 proposal defined the crude oil and natural gas production industry to include “the operations of exploring for crude oil and natural gas products, drilling for these products, removing them from beneath the earth’s surface, and processing these products from oil and gas fields for distribution to petroleum refineries and gas pipelines.”⁶¹

However, EPA appears to acknowledge the concerns and perceived ambiguity regarding the scope of the oil and gas category source. In the final rule, EPA states that

[T]o the extent that there is any ambiguity in the prior listing, the EPA hereby finalizes, as an alternative, its proposed revision of the category listing to broadly include the oil and natural gas industry. As revised, the listed oil and natural gas source category includes oil and natural gas production, processing, transmission, and storage. In support, the EPA has included in this action the requisite finding under section 111(b)(1)(A) that, in the Administrator’s judgment, this source category ... contributes significantly to air pollution which may reasonably be anticipated to endanger public health or welfare.⁶²

It will be unknown whether this alternative category revision satisfies the commentator’s concerns until the statements of issues and briefs are filed in the litigation.

Next Steps

As mentioned above, petitioners must file their preliminary statements of issues by September 7, 2016.⁶³ Petitioners will raise their legal issues in their preliminary statements and finalize those issues in their brief.⁶⁴

Regulations Targeting Methane Emissions from Municipal Landfills

In 1996, EPA listed municipal solid waste (MSW) landfills as a CAA Section 111 source category, and issued NSPSs for new, modified, and reconstructed MSW landfills pursuant to Section 111(b) and emission guidelines for existing landfills pursuant to Section 111(d) to address nonmethane organic compounds (NMOCs) and methane emissions.⁶⁵ In response to a consent

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ Standards of Performance for New Stationary Sources; Onshore Natural Gas Processing Plants In the Natural Gas Production Industry; Equipment Leaks of VOC; Proposed Rule and Notice of Public Hearing, 49 Fed. Reg. 2,636, 2,637 (January 20, 1984).

⁶² 2016 Oil & Gas NSPS, *supra* note 6, at 35,833.

⁶³ Clerk’s Order, *North Dakota v. EPA*, No. 16-1242 (D.C. Cir. August 8, 2016).

⁶⁴ D.C. Cir. R. 15(c), 28(a)(5).

⁶⁵ Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills, 61 Fed. Reg. 9,905 (March 12, 1996).

decree resolving a mandatory duty lawsuit⁶⁶ and the Administration's Methane Strategy, EPA proposed updates to the 1996 MSW landfill NSPSs and sought public comments on whether EPA should update the companion emission guidelines for existing landfills in 2014.⁶⁷ Over 20 years after the original NSPSs and emission guidelines were issued, EPA published on August 29, 2016, its updated NSPSs to reduce landfill gas emissions from MSW landfills built, modified, or reconstructed after July 17, 2014.⁶⁸ The agency also revised emission guidelines for existing landfills operating prior to that date.⁶⁹

The revised NSPSs maintain the current design capacity applicability threshold for new or modified landfills at 2.5 million metric tons (MMT) of design capacity (or 2.5 million cubic meters of waste).⁷⁰ The updated NSPSs lower the emission threshold that triggers requirements to capture landfill gas emissions from the current 50 metric tons of NMOCs per year to 34 metric tons.⁷¹ Under the rule, EPA will require that a gas collection control system be installed and operational within 30 months after landfill gas emissions reach 34 metric tons of NMOCs or more per year.⁷² The rule also updates monitoring requirements; expands approved uses for treated landfill gas; and includes other clarifications and updated definitions.⁷³ According to an agency fact sheet, 115 new, modified, or reconstructed landfills will be subject to the emission control requirements of the revised standards by 2025.⁷⁴ EPA estimates that the revised standards will reduce annual methane emissions by 44,000 metric tons in 2025.⁷⁵

Similar to the revised NSPSs, the revised emission guidelines for *existing* landfills built prior to July 17, 2014, will require active landfills that emit more than 34 metric tons of NMOCs annually to install landfill gas collection and control systems.⁷⁶ Closed landfills will remain subject to the 1996 threshold of 50 metric tons per year when determining when controls must be installed or can be removed.⁷⁷

As a result of the lower threshold for active landfills, EPA estimates that the emission control requirements will apply to 731 existing open and closed landfills, as compared to 638 facilities

⁶⁶ Environmental Defense Fund filed a mandatory duty lawsuit against EPA for failure to review the 1996 NSPS by the statutorily required deadline. *Env't'l Def. Fund v. EPA*, No. 1:11-cv-04492 (S.D.N.Y. June 30, 2011). Under a consent decree resolving that lawsuit, EPA agreed to review the 1996 landfill NSPS and take final action on whether to revise them. Consent Decree, *Env't'l Def. Fund v. EPA*, No. 1:11-cv-04492 (S.D.N.Y. October 1, 2012).

⁶⁷ Standards of Performance for Municipal Solid Waste Landfills; Proposed Rule, 79 Fed. Reg. 41,795 (July 17, 2014); Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills; Advanced Notice of Proposed Rulemaking, 79 Fed. Reg. 41,771 (July 17, 2014). Subsequently, EPA proposed revisions to the emission guidelines. Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills; Proposed Rule; 80 Fed. Reg. 52,100 (August 27, 2015).

⁶⁸ 2016 Landfill NSPS, *supra* note 7, at 59,332. The final rule is effective on October 28, 2016. *Id.*

⁶⁹ 2016 Landfill Emission Guidelines, *supra* note 8, at 59,276. The final rule is effective on October 28, 2016. *Id.*

⁷⁰ 2016 Landfill NSPS, *supra* note 7, at 59,333-334.

⁷¹ *Id.* at 59,334.

⁷² *Id.*

⁷³ *Id.* at 59,342-345.

⁷⁴ EPA, Final Updates to Performance Standards for New, Modified, and Reconstructed Landfills, and Updates to Emission Guidelines for Existing Landfills: Fact Sheet, at 3, <https://www3.epa.gov/ttn/atw/landfill/landfills-finalnsps-eg-factsheet.pdf> (hereinafter "EPA Fact Sheet").

⁷⁵ *Id.* at 4.

⁷⁶ 2016 Landfill Emission Guidelines, *supra* note 8, at 59,278.

⁷⁷ *Id.* at 59,279.

currently subject to emission control requirements.⁷⁸ EPA expects the methane emissions to be reduced by 290,000 metric tons annually in 2025 at these existing facilities.⁷⁹

Combined, EPA estimates that the revised NSPSs and emission guidelines will reduce methane emissions by 334,000 metric tons a year by 2025, and result in “climate-related benefits” valued at \$512 million with an annual cost of \$60 million.⁸⁰

Petitions for Review

It is uncertain whether the revised landfill NSPSs and emission guidelines will be challenged in court. Petitions for legal review of the rule and guidelines must be filed by October 28, 2016.⁸¹

Possible Legal Issues

This report does not aim to provide a comprehensive preview of the potential legal issues that may be raised if the landfill NSPSs and emission guidelines are challenged in court. The sections below offer a few potential legal issues, primarily drawn from comments submitted to EPA on the proposed rules, which may be raised in litigation.

EPA's Authority to Revise Section 111(d) Emission Guidelines

In comments on the proposed 2016 emission guidelines, some have questioned whether EPA has the authority to revise the 1996 emission guidelines for existing MSW landfills under CAA Section 111(d).⁸² The core of the legal argument is whether Section 111(d) implicitly allows EPA to revise and update emission standards. Pursuant to CAA Section 111(b), EPA is required to “at least every 8 years review and, if appropriate, revise” NSPSs for new, modified, and reconstructed sources.⁸³ However, Section 111(d) does not include a similar mandated review period for emission guidelines for *existing* sources.⁸⁴ EPA's implementing regulations for Section 111(d) emission guidelines only address revisions to the agency's determination regarding adverse public health effects that may alter compliance times under the guidelines and require states to make corresponding revisions to their state plans.⁸⁵

EPA states in the 2016 landfill emission guidelines' preamble that the agency “is not statutorily obligated to conduct a review of the Emission Guidelines, but has the discretionary authority to do so when circumstances indicate that it is appropriate.”⁸⁶ The agency believes this is a permissible interpretation of the CAA, and “is consistent with the gap filling nature of section

⁷⁸ EPA Fact Sheet, at 2.

⁷⁹ *Id.* at 4.

⁸⁰ *Id.*

⁸¹ See 42 U.S.C. §7607(b)(1); 2016 Landfill NSPS, *supra* note 7, at 59,332; 2016 Landfill Emission Guidelines, *supra* note 8, at 59,276.

⁸² See e.g., Comments from Allison D. Wood, Counsel, Utility Air Regulatory Group (UARG), to Gina McCarthy, Admin., EPA (October 26, 2015), at 5-8 (hereinafter “UARG Comments”).

⁸³ 42 U.S.C. §7411(b)(1)(B).

⁸⁴ See *id.* §7411(d).

⁸⁵ See 40 C.F.R. §60.22(d) (requiring EPA to “publish notice of the determination in the Federal Register, revise the guideline document as necessary ... , and propose and promulgate emission guidelines and compliance times” if the agency concludes that on the basis of new information that a prior determination regarding adverse health effects of a designated pollutant is incorrect or no longer correct).

⁸⁶ 2016 Landfill Emission Guidelines, *supra* note 8, at 59,277.

111(d)” to regulate air pollutants and sources not addressed in other sections of the CAA.⁸⁷ EPA argues that it would be “illogical” for the agency to be precluded from requiring existing sources to update air pollution controls when the “best system of emission reduction” will change over time as these sources continue to operate for decades.⁸⁸

In support of this position, the agency highlights jurisprudence that has recognized the power of regulatory agencies to reassess and revise promulgated rules even without an express statutory mandate to make such a revision.⁸⁹ The Supreme Court, for example, has stated that “[r]egulatory agencies do not establish rules of conduct to last forever; they are supposed, within the limits of the law and of fair and prudent administration, to adapt their rules and practices to the Nation’s needs in a volatile, changing economy.”⁹⁰ In this case, EPA is not requiring different controls from what was required in the 1996 emission guidelines, but is lowering the threshold of when those controls must be installed to achieve greater reductions in methane emissions on an “accelerated basis.”⁹¹

EPA’s authority to revise Section 111(d) emission guidelines has not been questioned previously because this is the agency’s first attempt to do so. Some argue in comments on the proposed emission guidelines that Congress’s explicit mandate authorizing EPA to review and potentially revise Section 111(b) NSPSs every eight years demonstrates that Congress knew how to provide for such review and revision, and intentionally did not provide a similar provision with respect to Section 111(d) emission guidelines.⁹² The commentator points out that the Supreme Court has held that “where Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.”⁹³ In contrast, EPA argues in the revised emission guidelines that “[h]ad Congress intended to preclude the EPA from updating the emission guidelines to reflect changes, it would surely have specifically said so, something it did not do.”⁹⁴

The legislative history of CAA Section 111 does not discuss the eight-year review for NSPSs under Section 111(b) or review of emission guidelines under Section 111(d). The history does provide some discussion regarding the need for EPA to look to currently available and evolving techniques in determining what constitutes the “best system of emission reduction” (BSER) that has been adequately demonstrated for standards of performance and emission guidelines. For example, when amending the CAA in 1970, the Senate Public Works Committee stated that “[t]he performance standards should be met through application of the latest available emission control technology or through other means of preventing or controlling air pollution.”⁹⁵ The committee also stated that “standards of performance are not static,” and that they “should provide an incentive for industries to work toward constant improvement in techniques for preventing and

⁸⁷ *Id.*

⁸⁸ *Id.* at 59,278.

⁸⁹ *See id.* at 59,277 n.5 (citing *American Trucking Ass’n v. Atchison, Topeka & Santa Fe Ry.*, 387 U.S. 397, 416 (1967)).

⁹⁰ *American Trucking Ass’n*, 387 U.S. at 416.

⁹¹ 2016 Landfill Emission Guidelines, *supra* note 8, at 59,278.

⁹² UARG Comments, *supra* note 82, at 2-4.

⁹³ *See id.*, at 3 (quoting *Russello v. United States*, 464 U.S. 16, 23 (1983)).

⁹⁴ 2016 Landfill Emission Guidelines, *supra* note 8, at 59,278.

⁹⁵ S.REPT. 91-1196, at 16 (1970).

controlling emissions from stationary sources.”⁹⁶ In a report regarding the 1977 CAA amendments, the Senate Environment and Public Works Committee reiterated that “[i]n passing the Clean Air Amendments of 1970, the Congress for the first time imposed a requirement for specified levels of control technology.... This requirement sought to assure the use of available technology and to stimulate the development of new technology.”⁹⁷ This history appears to suggest that EPA can broadly review and revise the “standards of performance,” a term of art that applies to both Section 111(b) NSPSs and Section 111(d) emission guidelines,⁹⁸ to ensure that the standards reflect the improvement of systems of emission reduction.

In addition, a reference to Section 110 procedures in Section 111(d) raises questions as to whether Congress intended for EPA to revise emission guidelines and state plans in a similar manner as Section 110. Specifically, Section 111(d) requires EPA to “prescribe regulations which shall establish a procedure similar to that provided by section 110 under which each State shall submit to the [EPA] Administrator a plan which ... establishes standards of performance for any existing source for any air pollutant.”⁹⁹ CAA Section 110 requires states to adopt and submit to EPA for approval state implementation plans (SIPs) that provide for the “implementation, maintenance, and enforcement” of national ambient air quality secondary standards (NAAQS) promulgated by EPA under CAA Section 109.¹⁰⁰ EPA is required to review the NAAQS every five years.¹⁰¹ If EPA decides to revise the NAAQS, states are required to revise their SIPs to implement and enforce the revised NAAQS.¹⁰²

It could be argued that this regulatory scheme is similar to Section 111(d) because emission guidelines are implemented through state plans. Once EPA sets guidelines for standards of performance for existing sources under Section 111(d), states are required to submit to EPA for approval a plan to implement and enforce the standards of performance for existing sources.¹⁰³ Therefore, it could be argued that in referencing Section 110 in Section 111(d), Congress may have intended to allow EPA to revise Section 111(d) guidelines and state plans in the same manner as NAAQS and SIPs are allowed to be revised in Section 109 and Section 110, respectively.

However, Section 110 and 111(d) are not completely analogous. In both cases, state plan revisions are necessary when the standards are revised because the state is the primary implementation and enforcement authority; but unlike Section 111(d), Section 110 revisions are triggered through a statutorily mandated five-year review under Section 109.¹⁰⁴ In contrast, Congress did not mandate a review and revision cycle for Section 111(d) emission guidelines for existing sources.

⁹⁶ *Id.* at 17.

⁹⁷ S.REPT. 95-127, at 17 (1977).

⁹⁸ See 42 U.S.C. §7411(a) (providing term definitions “[f]or purposes of this section [111],” including “standard of performance”).

⁹⁹ 42 U.S.C. §7411(d)(1).

¹⁰⁰ *Id.* §7410(a)(1).

¹⁰¹ *Id.* §7409(d)(1).

¹⁰² *Id.* §7410(a)(1).

¹⁰³ *Id.* §7411(d)(1).

¹⁰⁴ *Id.* §7409(d)(1).

Next Steps

Petitions for legal review of the final MSW landfill NSPSs and emission guidelines must be filed no later than October 28, 2016.¹⁰⁵ Currently, no petitions have been filed.

If challenged in court, a ruling on EPA's authority to revise the Section 111(d) landfill emission guidelines could affect EPA's ability to revise the Clean Power Plan (CPP) to regulate GHG emissions from existing power plants that was finalized on October 23, 2015.¹⁰⁶ A ruling upholding EPA's implicit authority to review and revise Section 111(d) guidelines would support a future review and revision of the CPP to require additional emission reductions based on a new analysis of the "best system of emission reduction." If the agency follows the Section 111(b) eight-year review cycle, EPA could consider revisions of the CPP in 2023—one year after the CPP's first mandatory emission reduction period starts.¹⁰⁷

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¹⁰⁵ See 42 U.S.C. §7607(b)(1); 2016 Landfill NSPS, *supra* note 7, at 59,332; 2016 Landfill Emission Guidelines, *supra* note 8, at 59,276.

¹⁰⁶ Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Rule, 80 Fed. Reg. 64,662 (October 23, 2015).

¹⁰⁷ *Id.* at 64,673.

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