States of California, Colorado, Connecticut, Delaware, Illinois, Iowa, Maine, Maryland, Michigan, Minnesota, New Jersey, New Mexico, New York, North Carolina, Oregon, Rhode Island, Vermont, Washington, the Commonwealths of Massachusetts and Pennsylvania, the District of Columbia, the City of Chicago, the City and County of Denver, and the Colorado Department of Public Health and Environment

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Via Electronic Transmission

EPA Docket Center (EPA/DC)
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U.S. Environmental Protection Agency
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1200 Pennsylvania Avenue, NW
Washington, DC 20460
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RE: Comments on Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review, 84 Fed. Reg. 50,244 (Sept. 24, 2019)

Attention: Docket ID No. EPA-HQ-OAR-2017-0757

Dear Administrator Wheeler,

The States of California,[1] Colorado, Connecticut, Delaware, Illinois, Iowa, Maine, Maryland, Michigan, Minnesota, New Jersey, New Mexico, New York, North Carolina, Oregon, Rhode Island, Vermont, Washington, the Commonwealths of Massachusetts and Pennsylvania, the District of Columbia, the City of Chicago, the City and County of Denver, and the Colorado Department of Public Health and Environment ("States and Cities") respectfully submit these comments on the Environmental Protection Agency's ("EPA") proposed rule titled "Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review," 84 Fed. Reg. 50,244 (Sept. 24, 2019) ("Proposed Rule" or "Proposal"). As detailed in these comments, the States and Cities oppose the Proposed Rule and continue to support EPA's 2016 emission standards for new, reconstructed, and modified sources in the oil and natural gas sector codified at 40 Code of Federal Regulations part 60, subpart OOOOa ("2016 Standard").[2]

The Proposed Rule is the latest and most far-reaching attempt by EPA to dismantle the 2016 Standard. To date, EPA has tried to stay, delay, and revise the 2016 Standard. But now it seeks to entirely eliminate federal regulation of methane emissions from the oil and natural gas sector. In doing so, EPA turns a blind eye to its own legal and factual findings that the oil and

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[1] The California Attorney General submits these comments pursuant to his independent power and duty to protect the environment and natural resources of the State. *See* Cal. Const., art. V, § 13; Cal. Gov. Code, §§ 12511, 12600-12612; *D'Amico. v. Bd. of Medical Examiners* (1974) 11 Cal.3d 1, 1415.

[2] 81 Fed. Reg. 35,824 (June 3, 2016).

natural gas sector is the largest source of methane in the United States; that methane is a potent greenhouse gas (GHG); that the oil and natural gas sector contributes significantly to air pollution that may reasonably be anticipated to endanger public health or welfare; and that methane emission from the oil and natural gas sector should be directly addressed through the best system for their reduction.

Indeed, EPA acknowledges that the Proposed Rule will *increase* emissions of methane, volatile organic compounds ("VOCs"), and hazardous air pollutants as compared to the 2016 Standard.[3] VOCs are a chemical precursor to ozone formation, and exposure to ozone poses a significant threat to public health, particularly the health of vulnerable populations including children, older adults, and those suffering from chronic lung disease and asthma.[4] And, the federal government's own scientists have underscored the overwhelming evidence of the environmental, public health, economic, and national security impacts of climate change resulting from anthropogenic emissions of GHGs, including methane.[5] The States and Cities have a demonstrated, legally protected interest in protecting our residents from harmful air pollution that contributes to climate change and endangers public health and welfare. We are already experiencing adverse impacts from climate change[6] and these climate-related impacts will only get worse and their costs will mount dramatically if GHG emissions continue unabated or increase.[7] Thus, the overwhelming scientific consensus is that immediate and continual progress toward a near-zero GHG-emissions economy by mid-century is necessary to avoid truly catastrophic climate change impacts.[8]

To that end, the States and Cities have long called for the federal government to regulate methane emissions from the oil and natural gas sector under section 111 of the Clean Air Act. In 2012, several of the undersigned filed a notice of intent to sue EPA for failing to make a determination of whether to regulate methane emissions from the oil and natural gas industry.

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[3] 84 Fed. Reg. 50,244, 52,059.
[4] 81 Fed. Reg. at 35,837.
[5] *See* U.S. Global Change Research Program, *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* (D.R. Reidmiller et al. eds., 2018), *available at* https://nca2018.globalchange.gov/ (the "Assessment").
[6] *See* Attachment 1, Climate Change Impacts of the States and Cities.
[7] Assessment, Summary of Findings at 26 ("With continued growth in emissions at historic rates, annual losses in some economic sectors are projected to reach hundreds of billions of dollars by the end of the century—more than the current gross domestic product (GDP) of many U.S. states.").
[8] *See id.*; *see also* Intergovernmental Panel on Climate Change (IPCC), *Global Warming of 1.5°C – Summary for Policymakers* at 12, (2018), https://report.ipcc.ch/sr15/ ("In model pathways with no or limited overshoot of 1.5°C, global net anthropogenic CO2 emissions decline by about 45% from 2010 levels by 2030 . . . , reaching net zero around 2050 . . . . Non-CO2 emissions in pathways that limit global warming to 1.5°C show deep reductions that are similar to those in pathways limiting warming to 2°C (high confidence).").

This notice was followed by the submittal of comments on EPA's actions leading up to and including the 2016 Standard. And as demonstrated by our actions to date, the States and Cities will not stand back as EPA seeks to upend the 2016 Standard. In 2017, when EPA withdrew a request seeking information on methane emissions from existing sources, the States and Cities objected. When EPA issued a stay of the 2016 Standard, the States and Cities intervened in litigation that successfully challenged the stay as unlawful. When EPA attempted to stay the 2016 Standard again, the States and Cities submitted comments in opposition. When EPA attempted to revise the 2016 Standard last year, the States and Cities opposed.

Now again, the States and Cities voice their opposition. If EPA finalizes the Proposed Rule, our residents will be exposed to and harmed by the impacts of methane, VOCs, and hazardous air pollutant emissions that would otherwise have been avoided if the 2016 Standard's requirements remained in force. As detailed herein, the Proposed Rule fails to pass legal muster for the following reasons:

- First, the Proposed Rule is arbitrary and capricious and unlawful under the Clean Air Act. Although the Proposed Rule sets forth a "primary proposal" and an "alternative proposal," at base, the Proposed Rule seeks to rescind the regulation of methane from the 2016 Standard. But, based on the extensive rulemaking record for the 2016 Standard, EPA had a rational basis to regulate methane. The Proposed Rule is arbitrary and capricious for failing to justify EPA's change of position in light of that record.

- Further, the Proposed Rule violates the Clean Air Act because EPA has a nondiscretionary duty to regulate methane emissions. Under EPA's long-standing interpretation of section 111(b) of the Clean Air Act, in the 2016 rulemaking, EPA also: (1) revised the oil and natural gas source category to include production, processing, transmission, and storage; and (2) determined that the oil and natural gas source category contributes significantly to air pollution—including GHGs—that may reasonably be anticipated to endanger public health or welfare.[9] Thus, EPA remains statutorily obligated to regulate methane emissions from the oil and natural gas source category.

- The Proposed Rule is also unlawful because it would remove the transmission and storage segment from the source category resulting in an increase in air pollution. EPA's proposed revision stands in direct contravention of EPA's prior endangerment and significant contribution finding as well as the goals of the Clean Air Act. Revising the scope of the source category is also arbitrary and capricious because EPA reasonably interpreted the original listing of the oil and natural gas source category to broadly cover the natural gas industry given the interrelated nature of the operations, equipment, and emissions.

- Further, the Proposed Rule is arbitrary and capricious because EPA fails to adequately consider the implications of its action on existing sources in the oil and natural gas industry.

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[9] 81 Fed. Reg. at 35,840.

Methane emissions from existing sources constitute the majority of methane emissions from this source category. The Proposed Rule is a transparent attempt by EPA to avoid its statutory obligation to regulate methane emissions from the largest industrial source of such emissions. Despite acknowledging that the Proposed Rule will remove its statutory obligations to promulgate methane guidelines for controlling methane emissions from existing sources,[10] EPA fails to adequately or rationally analyze and account for that effect of the Proposal.

- Finally, the Proposed Rule's alternative new interpretation of section 111(b) of the Clean Air Act would be contrary to the statute. EPA is not required to make a pollutant-specific significant contribution finding for GHG emissions, or for methane specifically, from the oil and natural gas source category as a prerequisite to regulating those emissions. EPA has failed to provide adequate justification for departing from its long-standing statutory interpretation as set forth in the rulemaking record for the 2016 Standard.

For these reasons, and as further detailed below, our States and Cities strongly oppose the Proposed Rule and respectfully request that EPA withdraw it and implement and enforce the 2016 Standard's important public health and environmental protections.

I. LEGAL AND FACTUAL BACKGROUND

A. Statutory and Regulatory Framework

Section 111 of the Clean Air Act contains the New Source Performance Standards ("NSPS") program, which requires EPA to follow certain steps in regulating categories of stationary (non-vehicle) sources of air pollution. First, EPA must establish a list of source categories and "shall include a category of sources in such 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."[11] To date, EPA has evaluated the emissions from both new sources and existing sources from the source category in making this determination, "and the D.C. Circuit has upheld that industry-wide approach."[12]

Once it has listed a source category, EPA "shall" promulgate "standards of performance" for new sources in that source category.[13] A "standard of performance" means "a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy

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[10] *Id.* at 50,271.
[11] 42 U.S.C. § 7411(b)(1)(A).
[12] 84 Fed. Reg. at 50.269 n.85 (citing *Nat'l Lime Ass'n v. EPA*, 627 F.2d 416, 433 n.48 (D.C. Cir. 1980); *Nat'l Asphalt Pavement Ass'n v. Train*, 539 F.2d 775, 779-82 (D.C. Cir. 1976)).
[13] 42 U.S.C. § 7411(b)(1)(B).

requirements) the Administrator determines has been adequately demonstrated."[14] EPA sets performance standards for new sources by reference to emissions levels that can be achieved using the most up-to-date control technology that is both feasible and cost-effective for each type of pollutant, but it does not mandate any specific equipment or technology.[15] Under the Clean Air Act, an existing source that is modified or reconstructed after regulations are proposed for new sources is also considered a new source.[16] At least every eight years, EPA must "review and, if appropriate, revise such standards following the procedure required . . . for promulgation of such standards."[17]

When EPA establishes performance standards for new sources in a particular source category, EPA is also required under section 111(d) of the Clean Air Act and applicable regulations to publish guidelines for controlling emissions from existing sources in that source category, subject to two narrow exceptions that, despite EPA's assertions to the contrary, are not applicable here. EPA's regulations provide that such guidelines will be issued "[c]oncurrently upon or after proposal of [section 111(b)] standards of performance for the control of a designated pollutant from affected facilities."[18] After EPA issues final guidelines for existing sources for a designated pollutant, states must submit plans containing emission standards for control of that pollutant from designated facilities within the state.[19] Thus, the obligation to control emissions of a designated pollutant from existing sources is triggered by EPA's issuance of final emission guidelines, the issuance of which, in turn, is triggered by issuance of new source performance standards. Absent such guidelines, emissions of such pollutant from existing sources may not otherwise be regulated under section 111 of the Clean Air Act.

B. Emissions from the Oil and Natural Gas Industry Endanger Public Health and Welfare

According to EPA, the oil and natural gas industry is the largest emitter of methane in the United States.[20] Methane emissions from oil and natural gas sources in existence before 2012 constitute the majority of methane emissions from the oil and natural gas sector in the United States.[21] EPA's 2019 "Inventory of U.S. Greenhouse Gas Emissions and Sinks" indicates that total methane emissions from the oil and gas industry account for about 29 percent of the total methane emissions from all U.S. sources. Methane is a potent greenhouse gas that, pound for pound, warms the earth eighty-four to eighty-six times more than carbon dioxide for the first two decades after release and twenty-eight to thirty-six times more over a one hundred-year

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[14] 42 U.S.C. § 7411(a)(1).
[15] 42 U.S.C. § 7411(a)(1) & (b)(5).
[16] 42 U.S.C. § 7411(a)(2); 40 C.F.R. § 60.15.
[17] 42 U.S.C. § 7411(b)(1)(B).
[18] 40 C.F.R. § 60.22a(a).
[19] 40 C.F.R. § 60.23a(a)(1).
[20] 84 Fed. Reg. at 50249.
[21] See Attachments 2 & 3 (EPA Admissions at ¶ 8; EPA Answer at ¶ 35.).

timeframe.[22] According to the Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report (2013), methane is the second leading climate-forcing agent after carbon dioxide globally. Numerous scientific assessments, including EPA's 2009 Endangerment Finding,[23] establish that anthropogenic GHG emissions, including methane, contribute to climate change and may reasonably be anticipated to endanger public health and welfare. EPA has found that methane "contributes to warming of the atmosphere, which, over time, leads to increased air and ocean temperatures, changes in precipitation patterns, melting and thawing of global glaciers and ice, increasingly severe weather events, such as hurricanes of greater intensity and sea level rise."[24]

Scientific assessments since the 2009 Endangerment Finding have only strengthened the case that anthropogenic GHG emissions endanger public health and welfare, and we are currently seeing new records for climate change indicators such as increased global average surface temperatures (fifteen of the last sixteen years have been the warmest on record), Arctic sea ice retreat, and increased GHG concentrations in the atmosphere.[25] Indeed, the Assessment concludes that "[g]reenhouse gas emissions from human activities are the only factors that can account for the observed warming over the last century" and emphasizes that "[t]he impacts of climate change are already being felt in the United States and are projected to intensify in the future."[26] To highlight just two of its troubling findings, the Assessment states that, "[i]mpacts from climate change on extreme weather and climate-related events, air quality, and the transmission of disease through insects and pests, food, and water increasingly threaten the health and well-being of the American people, particularly populations that are already vulnerable."[27] Similarly, the Assessment concludes that "[o]ur aging and deteriorating infrastructure is further stressed by increases in heavy precipitation events, coastal flooding, wildfires, and other extreme events, as well as changes to average precipitation and temperature."[28]

In addition, the oil and natural gas industry is a source of significant emissions of VOCs and hazardous air pollutants. The public health impacts of VOCs are well documented. VOCs are a main precursor to the formation of ozone, which can cause harmful respiratory symptoms such as airway inflammation and asthma.[29] Long-term exposure to VOCs can also result in premature death from lung and heart disease.[30] Children and people with respiratory disease are

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[22] *See* Attachment 2, EPA Admissions at ¶¶ 1 & 2.
[23] *See* "Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act; Final Rule," 74 Fed. Reg. 66,496 (Dec. 15, 2009).
[24] 77 Fed. Reg. 49,490, 49,535 (Aug. 23, 2011).
[25] 81 Fed. Reg. at 35,834-36.
[26] Assessment at 2, 8-9.
[27] *Id.* at ch. 6.
[28] Assessment at ch. 10.
[29] *See* Regulatory Impact Analysis for the Proposed Rule ("RIA) at 3-15, 3-16.
[30] *Id.*

most at risk.[31] EPA has further found that harmful hazardous air pollutants associated with natural gas, like formaldehyde and benzene, cause cancer and other adverse health effects.[32]

C. Regulation of the Oil and Natural Gas Industry under Section 111

In 1979, based on emissions from the source category as a whole (including emissions from existing sources), EPA listed crude oil and natural gas production as a source category that contributes significantly to air pollution that may reasonably be anticipated to endanger public health and welfare.[33] EPA originally promulgated standards of performance for the oil and natural gas sector in 1985.[34] The eight-year deadline for reviewing these standards expired in 1993. EPA failed to timely review the standards of performance, leading multiple groups to file suit in 2009 to compel such review. That case, *Wild Earth Guardians v. EPA*, No. 1:09-CV-00089 (D.D.C.), resulted in a consent decree setting forth a schedule for proposing any final revisions by November 30, 2011. EPA proposed revisions to the oil and natural gas NSPS in August 2011,[35] and signed a final rule to complete the mandated review for oil and natural gas operations on April 17, 2012.[36] However, EPA did not establish performance standards or emission guidelines for methane emissions in 2012. Instead, EPA stated "we intend to continue to evaluate the appropriateness of regulating methane with an eye toward taking additional steps if appropriate."[37] The agency stated that "over time," it would assess emissions data received pursuant to the recently implemented greenhouse gas emissions reporting program, which would help it evaluate whether to directly regulate methane and identify cost-effective ways to do so.[38]

On December 11, 2012, New York, Connecticut, Delaware, Maryland, Massachusetts, Rhode Island, and Vermont notified EPA of their intent to sue the agency for violating the Clean Air Act by failing to adopt limits on methane emissions from equipment used in oil and natural gas production, processing, and transmission in the 2012 Standard.[39] As explained in that notice letter, EPA had determined that methane emissions endanger public health and welfare, and that processes and equipment in the oil and natural gas sector emit vast quantities of methane. EPA had compelling data, including from eighteen years of experience administering the voluntary Natural Gas Star Program (a public-private partnership with the oil and natural gas industry

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[31] *Id.*
[32] *Id.* at 3-19 to 3-27.
[33] *See* Priority List and Additions to the List of Categories of Stationary Sources, 44 Fed. Reg. 49,222 (Aug. 21, 1979).
[34] 50 Fed. Reg. 26,122; 50 Fed. Reg. 40,158.
[35] 76 Fed. Reg. 52,738 (Aug. 23, 2011)
[36] 77 Fed. Reg. 49,490 (Aug. 16, 2012) ("2012 Standard").
[37] *Id.* at 49,513.
[38] *Id.*
[39] *See* Attachment 4, Clean Air Act Notice of Intent to Sue Letter to Lisa P. Jackson, Administrator, U.S. Environmental Protection Agency, from New York, Connecticut, Delaware, Maryland, Massachusetts, Rhode Island, and Vermont (Dec. 11, 2012).

launched in 1993) demonstrating that many measures to avoid or reduce methane leaks from new and existing oil and natural gas operations were available and cost-effective. In light of EPA's findings, those States asserted that EPA's failure in its 2012 rulemaking to determine whether standards limiting methane emissions from oil and natural gas operations under section 111 of the Clean Air Act were appropriate was a violation of a nondiscretionary duty of the Administrator and constituted an unreasonable delay in taking agency action.

After 2012, additional studies confirmed that the oil and natural gas sector is the largest industrial source of methane emissions, accounting for a third of total methane emissions in the United States.[40] Recognizing the importance of reducing methane emissions, in June 2013, President Obama issued a Climate Action Plan, which directed EPA and other federal agencies to develop a comprehensive interagency strategy to reduce methane emissions. In March 2014, the President built on the Climate Action Plan with a Strategy to Reduce Methane Emissions. That strategy identified methane reductions as an important step to achieve near-term beneficial impacts in mitigating global climate change and committed EPA to assessing significant sources of methane and other emissions from the oil and natural gas sector, soliciting input from independent experts through a series of technical white papers, and determining how best to pursue further methane reductions from these sources. Many of the undersigned Attorneys General filed comments on the EPA white papers advocating for the direct regulation of methane from new and existing oil and natural gas development and delivery equipment.[41] States that had noticed their intent to sue EPA over its failure to address oil and natural gas sector methane emissions withheld suit as these efforts took shape.

In January 2015, the Administration announced its goal to cut methane emissions from the oil and natural gas sector by as much as forty-five percent from 2012 levels by 2025. In September 2015, EPA proposed regulations to require new and modified equipment to meet standards to limit their methane emissions.[42] Many of the undersigned Attorneys General submitted comments on the proposed standards for new and modified sources, and further urged EPA to move forward expeditiously with regulation of existing sources.[43]

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[40] *See* Oil and Natural Gas Sector: Emission Standards for New and Modified Sources, Proposed Rule, 80 Fed. Reg. 56,593.
[41] *See* Attachment 5, Letter from Eric T. Schneiderman, et al., to Gina McCarthy, "Re: Comments on EPA Methane White Papers" (June 16, 2014) (signed by attorneys general of Delaware, Maryland, Massachusetts, New York, Oregon, Rhode Island, and Vermont); Attachment 6, Letter from Eric Schneiderman, et al., to Janet McCabe, "Re: Addressing Methane Emissions from Distribution Sector" (Sept. 12, 2014) (signed by attorneys General of Delaware, Maryland, Massachusetts, New York, Oregon, Rhode Island, and Vermont).
[42] 80 Fed. Reg. 56,593 (Sept. 18, 2015).
[43] *See* Attachment 7, Letter from Attorneys General of New York, Massachusetts, Oregon, Rhode Island, and Vermont to United States Environmental Protection Agency, Docket ID No. EPA-HQ-OAR-2010-0505 (Dec. 4, 2015).

D. The 2016 Standard[44]

On June 3, 2016, pursuant to its authority under section 111(b) of the Clean Air Act, EPA finalized the 2016 Standard to reduce emissions of methane, VOCs and other pollutants from new and modified production, gathering, processing, transmission and storage equipment in the oil and natural gas industry.[45] Specifically, the 2016 Standard targets the following sources of methane and VOC emissions: hydraulically fractured oil well completions, pneumatic pumps, fugitive emissions from well sites and compressor stations, and equipment leaks at natural gas processing plants.[46] EPA encouraged the use of emerging technology in leak monitoring and set a fixed schedule for monitoring leaks of twice per year for all well sites and four times per year for all compressor stations.[47] According to EPA, the 2016 Standard is expected to reduce 300,000 tons of methane, 150,000 tons of VOCs, and 1,900 tons of hazardous air pollutants (as a co-benefit of reducing VOCs) in 2020.[48] In 2025, the rule would reduce 510,000 tons of methane, 210,000 tons of VOCs, and 3,900 tons of hazardous air pollutants.[49] EPA analyzed the costs and benefits of the 2016 Standard, including the revenues from recovered natural gas that would otherwise be lost, and determined that the 2016 Standard would result in a net benefit estimated at $35 million in 2020 and $170 million in 2025.[50]

The 2016 Standard also complements state regulation to control methane emissions from the oil and natural gas sector. For example, California's regulation, approved by the California Air Resources Board in March 2017, requires quarterly monitoring and repairing of methane leaks from both onshore and offshore oil and natural gas wells, natural gas processing facilities, compressor stations, and other equipment used in the processing and delivery of oil and natural gas.[51] California's regulation requires oil and natural gas operators above a certain size to implement vapor recovery systems that will capture methane so that it can be reused. California's regulation seeks to curb methane emissions at oil and natural gas production facilities by up to forty-five percent over the next nine years.[52] Colorado adopted rules in February 2014 that govern new and existing well production facilities and natural gas

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[44] The Primary Documents and Supporting Documents for the 2016 Standard *available at* https://www.regulations.gov/docket?D=EPA-HQ-OAR-2010-0505 are attached hereto as Attachment 15.
[45] 81 Fed. Reg. 35,824 (June 3, 2016).
[46] *Id.* at 35,825.
[47] *Id.* at 35,826, 35,846.
[48] *Id.* at 35,827.
[49] *Id.*
[50] *Id.* at 35,827-28.
[51] *See* Cal. Code Regs. tit. 17, §§ 95665, *et seq*.
[52] New York is also moving ahead to develop, propose and adopt, as necessary, regulations to limit emissions from existing oil and natural gas transmission facilities, such as compressor stations, not regulated by the federal New Source Rule. *See* New York Methane Reduction Plan (May 2017), *available at* http://www.dec.ny.gov/docs/administration_pdf/mrpfinal.pdf.

compressor stations.[53] Colorado requires leak inspections either monthly, quarterly, annually, or one time, depending on facility emissions. These regulations are expected to reduce methane emissions from Colorado's oil and natural gas sector by approximately 64,000 tons per year. Colorado strengthened those regulations in November 2017 to increase the frequency of leak detection inspections for oil and natural gas wells in ozone nonattainment areas, and to mandate inspections of pneumatic controllers to confirm proper operation and necessary responsive actions.[54] California and Colorado are not alone: New Mexico, Pennsylvania, Texas, Utah, and Wyoming have proposed or enacted leak detection and repair standards, all of which require more frequent inspections than does EPA's Proposed Rule. Even with these robust state efforts, EPA action is needed—and, indeed, required—under the Clean Air Act, to ensure baseline national standards of performance in the oil and natural gas sector, especially in states with no such backstop programs.

EPA's promulgation of the 2016 Standard triggered its obligation to issue methane emission guidelines for existing sources. Although the agency did not concurrently issue guidelines, it did concurrently publish a notice that it would be issuing an information collection request (ICR) to obtain "more specific information that would be of critical use in addressing existing source emissions pursuant to CAA section 111(d)."[55] After two rounds of notice and comment, and review by the Office of Management and Budget, EPA issued the final methane ICR on November 10, 2016 and began receiving the requested information from oil and natural gas operators in January 2017.

E. EPA's 180 Degree Reversal on Regulating Methane from the Oil and Natural Gas Industry Under Section 111

The current Administration has stayed, delayed, revised, and now proposes to entirely reverse federal efforts to control methane emissions from the oil and natural gas sector. In March 2017—one day after a request from Attorneys General with whom he was previously allied in opposing EPA rules[56]—the then-EPA Administrator withdrew, without any notice or opportunity to comment, EPA's ICR to the oil and natural gas industry requesting information on

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[53] 5 Colo. Code Regs. §1001-9:XVII.F.
[54] 5 Colo. Code Regs. §1001-9:0, Section XII.L (2018). Table 9 of the Proposed Rule indicates that Colorado currently has regulations on the transmission and storage segment (84 Fed. Reg. at 50,277), but EPA offers no citation in support. In fact, Colorado currently has no air quality regulations imposing control requirements or directed to seeking reductions of VOC or methane from this segment of the industry. Colorado currently relies on the reductions achieved by the 2016 Standard.
[55] 81 Fed. Reg, 35,763, 35,764 (June 3, 2016).
[56] *See* Letter from Ken Paxton, Texas Attorney General, et al., to Scott Pruitt, U.S. EPA Administrator (Mar. 1, 2017), *available at* https://www.epa.gov/sites/production/files/2017-03/documents/letter_from_attorneys_general_and_governors.pdf.

methane emissions from existing sources.[57] The withdrawal was not based upon any reasoned analysis by EPA,[58] but instead spurred by a request from an oil and natural gas industry lobbyist who urged "several key rationales for either eliminating the ICR or at least extending the response date."[59] That request was shepherded by a politically-appointed member of the new Administration's transition team, who thanked the lobbyist "for bringing it to our attention," explaining that "[t]here was nobody here (political or career) who thought the ICR made sense given the changes in associated policy," and apologized that "with all of the commotion of the transition, the very sensible proposal to cancel the ICR fell through the cracks."[60] Within a matter of weeks, the ICR was withdrawn and EPA's process to regulate existing sources halted, based on an apparent change in policy that occurred without any public process or record in support.

Several weeks later, on March 28, 2017, President Trump issued Executive Order No. 13783,[61] which directed agencies to review existing regulations and "appropriately suspend, revise, or rescind those that unduly burden the development of domestic energy resources …."[62] In April 2017, EPA initiated its E.O. review of the 2016 Standard[63] and announced that it had convened a proceeding for reconsideration.[64] EPA then issued its first administrative, three-month stay of the rule, which the U.S. Court of Appeals for the District of Columbia Circuit summarily vacated as unlawful.[65] EPA again attempted to halt implementation of the 2016 Standard by proposing two additional stays of the requirements. Several commenters, including the States and Cities, opposed EPA's proposed stays, and the action was never finalized. In October 2018, EPA also proposed amendments to the 2016 Standard, which have not yet been finalized. Therefore, the 2016 Standard, and the statutory requirement to promulgate guidelines to address methane emissions from existing sources, continues in full force and effect.

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[57] *Notice Regarding Withdrawal of Obligation to Submit Information; Notice*, 82 Fed. Reg. 12,817 (Mar. 7, 2017).
[58] Senior career staff "most familiar with the circumstances surrounding the ICR withdrawal," "did not discuss the ICR withdrawal at any time with Mr. Pruitt," nor "with any outside parties," and did not "bec[o]me aware of the basis for the withdrawal of the 2016 ICR [until] March 2, 2017," the day it was signed. *See* Attachment 8, EPA's Amended Responses to Plaintiffs' First Set of Interrogatories at 4–7.
[59] See Attachment 9 (Declaration of Morgan Costello).
[60] *Id.*
[61] 82 Fed. Reg. 16,093 (Mar. 31, 2017)
[62] *Id.* § 1(c).
[63] 82 Fed. Reg. 16,331 (Apr. 4, 2017)
[64] *See* Letter re: Convening a Proceeding for Reconsideration of Final Rule, "Oil and Natural Gas Sector: Emission Standards for New, Reconstructed and Modified Sources," published June 3, 2016, to Counsel for Entities that Petitioned for reconsideration, available at (Apr. 18, 2017), *available at* https://www.epa.gov/sites/production/files/2017-04/documents/oil_and_gas_fugitive_emissions_monitoring_reconsideration_4_18_2017.pdf.
[65] *Clean Air Council v. Pruitt*, 862 F.3d 1, 14 (D.C. Cir. 2017).

The Proposed Rule is the latest in a series of attempts by EPA to undermine a common-sense rule that reduces emissions of harmful pollutants and recovers valuable natural gas that would otherwise be lost.[66] EPA admits that the Proposed Rule will increase methane emissions by 370,000 tons, VOC emissions by about 10,000 tons, and hazardous air pollutants by about 300 tons between 2019 and 2025 as compared to the 2016 Standard.[67] At base, EPA proposes to rescind the regulation of methane from the 2016 Standard.[68] EPA further proposes to revise the source category to remove the transmission and storage segment from the 2016 Standard. EPA also seeks comment on proposed "alternative interpretations of its statutory authority" to regulate pollutants under section 111 of the Clean Air Act.[69] Specifically, EPA takes comment on whether "the Agency is required to make a significant-contribution finding each time that it regulates a pollutant from the source category."[70] EPA points to the Executive Order No. 13783 ("Order") as the basis for this proposal.[71] But an Executive Order cannot relieve EPA from its statutory obligations to regulate methane emissions from the oil and natural gas source category.

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[66] The Proposed Rule has already been met with widespread opposition from a range of stakeholders, including major oil companies like Exxon Mobil Corp., BP PLC, and Royal Dutch Shell PLC. *See, e.g.*, https://www.reuters.com/article/us-ceraweek-energy-emissions/shell-urges-trump-white-house-to-tighten-methane-leak-rules-idUSKBN1QT2DT; https://www.houstonchronicle.com/opinion/outlook/article/BP-America-chief-It-s-time-for-the-Trump-13721656.php; https://energyfactor.exxonmobil.com/perspectives/supports-methane-regulation/; https://www.shell.com/sustainability/transparency/public-advocacy-and-political-activity/_jcr_content/par/textimage.stream/1554466210642/0a46ab13e36e99f8762ebb021bd72decec2f47b2/final-industry-association-climate-review-april-2019.pdf. This position is shared by other key stakeholders, including major downstream utilities (natural gas users) and investors. *See, e.g.*, http://business.edf.org/blog/2019/10/09/federal-methane-rollbacks-spark-new-opposition-from-12-major-utilities.

[67] *See* 84 Fed. Reg. at 50,278.

[68] *See* 84 Fed. Reg. at 50,246. But events predating the March 2017 Executive Order appear to support a pretextual rationale for the Proposed Rule. *See* Attachment 8 (EPA's Amended Responses to Plaintiffs' First Set of Interrogatories at 4–7); *see* Attachment 9 (Declaration of Morgan Costello); *see* Attachment 14, Statement of Issues filed by the American Petroleum Institute in D.C. Circuit, Case No. 16-1270. As the U.S. Supreme Court has recently made clear, "an explanation for agency action that is incongruent with what the record reveals about the agency's priorities and decisionmaking process" cannot satisfy the reasoned decision-making requirements of federal administrative law. *Dep't of Commerce v. New York*, 139 S. Ct. 2551, 2575 (2019).

[69] *Id*. at 50,244.

[70] *Id*. at 50,246.

[71] 84 Fed. Reg. at 50,246.

The Order also specifically states that it "shall be implemented consistent with applicable law,"[72] and as detailed below, the Proposed Rule is not consistent with applicable law.

II. EPA'S PROPOSED RULE IS UNLAWFUL AND ARBITRARY AND CAPRICIOUS

Under the Clean Air Act, an EPA rulemaking will be set aside if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 42 U.S.C. § 7607(d)(9)(A); *see also Ethyl Corp. v. EPA*, 51 F.3d 1053, 1064 (D.C. Cir. 995) (arbitrary and capricious standard under the Clean Air Act is interpreted in "essentially the same" way as the same standard under the Administrative Procedure Act). As the Supreme Court has explained, "[o]ne of the basic procedural requirements of administrative rulemaking is that an agency must give adequate reasons for its decisions." *Encino Motorcars LLC v. Navarro*, 136 S. Ct. 2117, 2125 (2016); *see also Motor Vehicle Mfrs. Ass'n of the United States v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (an agency must "examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made.").

Because the Proposed Rule represents a change in EPA's position, EPA must display "awareness that it is changing position;" show that "the new policy is permissible under the statute"; "believe[]" the new policy is better; and provide "good reasons" for the new policy. *FCC v. Fox Television Stations, Inc*., 556 U.S. 502, 515 (2009); *see also Lone Mountain Processing, Inc. v. Secretary of Labor*, 709 F.3d 1161, 1164 (D.C. Cir. 2013) ("[A]n agency changing its course must supply a reasoned analysis indicating that prior policies and standards are being deliberately changed, not casually ignored. Failing to supply such analysis renders the agency's action arbitrary and capricious."). And if the Proposed Rule rests upon factual findings that contradict a prior policy, then the agency must include "a reasoned explanation . . . for disregarding facts and circumstances that underlay or were engendered by the prior policy." *Fox*, 556 U.S. at 515-16. The Proposed Rule fails to meet this standard.

A. EPA's Proposal to Rescind Regulation of Methane from the Oil and Natural Gas Industry Is Unlawful

The Proposed Rule is arbitrary and capricious and unlawful under the Clean Air Act. Based on the extensive rulemaking record for the 2016 Standard, EPA had a rational basis to regulate methane and EPA fails to justify its change of position in light of that record. Further, the Proposed Rule violates the Clean Air Act because EPA determined that the oil and natural gas source category contributes significantly to air pollution, including GHGs, that may reasonably be anticipated to endanger public health or welfare and thus, EPA remains statutorily

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[72] Executive Order No. 13783 § 8(b); *see also id.* § 1(c) (directing agencies to review existing regulations and "appropriately suspend, revise, or rescind those that unduly burden the development of domestic energy resources *beyond the degree necessary to protect the public interest or otherwise to comply with the law*." (emphasis added)).

obligated to regulate methane emissions from this source. The Proposed Rule is also unlawful because it would remove the transmission and storage segment from the source category without reconciling the revision with EPA's prior endangerment and significant contribution finding or EPA's prior interpretation of the original listing. Finally, the Proposed Rule is arbitrary and capricious because EPA fails to adequately consider the implications of its action on existing sources in the oil and natural gas industry and disregards EPA's prior position without any reasoned explanation.

1. EPA Had a Rational Basis to Regulate Methane, and the Proposed Rule is Arbitrary and Capricious for Failing to Justify EPA's Reversal

EPA fails to justify its change of position from the 2016 Standard or reconcile the Proposed Rule with its own rulemaking record. In 2016, EPA finalized its alternative proposal to revise the source category to broadly cover all components of the oil and natural gas industry. See infra section __. But the primary proposal focused on EPA's authority to regulate emissions of an additional pollutant—specifically methane—from a previously listed category. Under the plain language of section 111 and EPA's longstanding interpretation, once EPA lists and regulates a source category for any pollutant, EPA does not need to make an additional endangerment finding, including a significant contribution finding, before regulating additional pollutants emitted by both new and existing sources in that source category. Instead, "[i]n exercising its discretion with respect to which pollutants are appropriate for regulation under CAA section 111(b)(1)(B), the EPA has in the past provided a rational basis for its decisions."[73] In determining whether it is appropriate to include a standard for a health-and-welfare endangering air pollutant, EPA generally considers: (i) the extent of the source category's contribution to the emissions of the pollutant, and (ii) the availability of methods to reduce those emissions.[74]

In the 2016 Standard, EPA correctly determined that it had legal authority to regulate methane from the oil and natural gas source category under section 111(b)(1)(B).[75] EPA's rational basis determination was based on overwhelming record evidence regarding the adverse impacts of methane to public health and welfare and the high quantities of methane emissions from the oil and natural gas source category, including existing sources.[76] The record before the

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[73] 81 Fed. Reg. at 35,842, citing *Nat'l. Lime Assoc. v. EPA*, 627 F. 2d 416, 426 & n.27 (D.C. Cir. 1980).
[74] *See e.g.*, 81 Fed. Reg. at 35,842; *accord* 75 Fed. Reg. 54, 970 (Sept. 9, 2010).
[75] 81 Fed. Reg. at 35,841; *id.* at 35,842-43 ("When considered in total, the facts presented in . . . this preamble, along with prior EPA analysis, . . . provide a rational basis for regulating GHG emissions from affected oil and gas sources by expressing GHG limitations in the form of limits on methane emissions.").
[76] *See, e.g.*, 81 Fed. Reg. at 35,833-43 (citing to, among other things, EPA's 2009 endangerment finding for GHGs, including methane, 74 Fed. Reg. 66,496 (Dec. 15, 2009), and subsequent

(continued…)

agency provided ample support for its authority to regulate oil and natural gas source category methane emissions under section 111(b), and there is no reason for EPA now to ignore that evidence and reach a different conclusion. Indeed, any other finding would be irrational. While administrative agencies may change their positions over time, they are required to acknowledge and explain such changes. *FCC v. Fox Television Stations, Inc*., 556 U.S. 502, 515 (2009). In particular, agencies "must show that there are good reasons for the new policy" and that "the new policy is permissible under the statute." *Id*. Further, when an agency revises a previous policy based on new data, or when the revisions would disrupt serious reliance interests, it must provide "a reasoned explanation . . . for disregarding facts and circumstances that underlay or were engendered by the prior policy." *Id*.

Here, EPA has not met any of these requirements. As discussed below, EPA has not demonstrated, and cannot demonstrate, that rescinding the methane requirements of the 2016 Standard is permissible under section 111(b) of the Clean Air Act. *See* Section II.A.2. EPA has also failed to provide good reasons supporting its new policy. EPA's stated justification for the rescission is to remove regulatory duplication because the regulatory requirements for controlling VOC emissions from new sources are "entirely redundant" of the methane requirements.[77] EPA asserts that "[i]t is rational for EPA to determine that requirements that are redundant to other requirements are not necessary because they do not result in emission reductions beyond what would otherwise occur," and proclaims that therefore the rescission "will have no impact on the amount of methane emissions."[78] However, the agency at the same time admits that its rescission of the methane requirements for *new* sources will remove its statutory obligation to promulgate non-redundant Methane Guidelines for controlling methane emissions from *existing* sources.[79] Nonetheless, EPA does not evaluate the impact of the Proposed Rule on methane emissions, nor explain how taking action to "obviate the need for the development of emission guidelines under CAA section 111(d)"[80] is consistent with its affirmative obligations under the statute to regulate emissions that it has found endanger public health and welfare.

(…continued)
assessments validating and lending additional credence to such finding; the fact that the oil and natural gas source category is the largest industrial emitter of methane in the United States; and the high global warming potential of methane, which is 28 to 36 times greater than that of carbon dioxide); *cf. Coalition for Responsible Regulation, Inc. v. EPA*, 684 F.3d 102, 120 (D.C. Cir. 2012) ("The body of scientific evidence marshaled by EPA in support of the [2009] Endangerment Finding is substantial.").

[77] 84 Fed. Reg. at 50,246.

[78] *Id.* at 50,259.

[79] *Id.* at 50,271. EPA goes so far as to "recognize" that it could just as well have rescinded the volatile organic compound regulations to eliminate this allegedly problematic redundancy (an action it admits would not eliminate its obligation to regulate methane from existing sources), but chooses to deregulate methane principally because "EPA regulated VOC first." *Id*. at 50,260.

[80] *Id*. at 50,254

Further, EPA bases its redundancy claim on the assertion that "[t]he capture and control devices that the emission sources use to meet the [2016 Standard] are the same for these co-pollutants and are not selective with respect to either VOC or methane emissions."[81] But, as EPA recognizes, future developments in leak monitoring technology may be able to speciate emissions (i.e., distinguish between methane and VOC).[82] Thus under the Proposed Rule, new technologies with that capability will not achieve the same reductions of methane as the current requirements because leaks currently subject to repair under the 2016 Standard might not be subject to repair under a VOC-only standard. While optical gas imaging (OGI) or an infrared camera is the best system of emissions monitoring for fugitive emissions from well sites and compressor stations, the 2016 Standard also allows Method 21 to be used as an alternative monitoring method to OGI and repairs must be conducted if the leak concentration level is 500 ppm or greater.[83] So if a component has a very low VOC content – such as at facilities operating in coalbed methane basins like the Raton Basin in Colorado – and a 500-ppm VOC leak concentration threshold is used, a technology that can speciate emissions may not identify it as a leak and methane reductions will be lost.

Moreover, section 111(b)(1)(B) of the Clean Air Act requires EPA periodically to reconsider and, if appropriate, revise the standards established under this section. Removing methane from the 2016 Standard will mean that the methane requirements will not be subject to this mandatory reconsideration. While similar control technologies address VOC and methane currently, it is reasonable to predict that in the future, control technologies, and thus the performance standards based on the capabilities of those technologies, could diverge. For example, control technology could improve its efficacy with respect to one, but not both, pollutants. Removing methane from the 2016 Standard means that the methane standards would not be subject to future consideration of such technological developments, and therefore, the potential for the methane standards to be strengthened would be lost by EPA's action. The eight-year review process under section 111(b)(1) itself has environmental benefit and value, which EPA has failed even to recognize, much less justify.

In a final attempt to bolster its irrational justification, EPA points to the 1977 proposed new source performance standards for Lime Plants, 42 Fed. Reg. 22,506 (May 3, 1977) ("Lime Plants NSPS") as the sole example of EPA declining to impose redundant requirements.[84] Lime plants are a source of emissions of particulate matter, nitrogen oxides, carbon monoxide, and sulfur dioxide.[85] During the rulemaking for the Lime Plants NSPS, EPA proposed and promulgated standards for particulate matter from lime plants, but declined to regulate nitrogen

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[81] *Id*. at 50,259.
[82] *Id*. at 50,260.
[83] 81 Fed. Reg. at 35,857; 40 C.F.R. §60.5397a.
[84] 84 Fed. Reg. at 50,259.
[85] 42 Fed. Reg. at 22,507.

oxides, carbon monoxide, and sulfur dioxide.[86] EPA decided not to regulate nitrogen oxides and carbon monoxide because lime kilns generally emit those pollutants in low concentrations, and EPA had not yet identified an achievable control technology.[87] While EPA recognized that reducing sulfur dioxide emissions was a co-benefit to controls on particulate matter emissions, EPA decided not to regulate sulfur dioxide because of "the economic impact and the associated adverse environmental impact on water pollution, solid waste disposal, and increased energy consumption [were] not considered reasonable in light of the relatively small beneficial impact on air quality."[88] Therefore, EPA determined that a standard of performance for control of sulfur dioxide was not justified.[89] But in 2016, unlike its determination in the Lime Plants NSPS, EPA expressly recognized that the oil and natural gas source category is a significant emitter of methane emissions, and identified adequately demonstrated and cost-effective technology to limit those emissions.[90] Hence, EPA's sole regulatory example falls short of providing further justification for the Proposed Rule.

In sum, EPA has not provided any "good reasons" for the Proposed Rule and entirely fails to "offer[] an explanation for its decision that runs counter to the evidence before the agency." *North Carolina v. EPA*, 531 F.3d 896, 906 (D.C. Cir. 2008) (quoting *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43.). Therefore, the Proposed Rule is arbitrary and capricious, constitutes an abuse of EPA's discretion, and must be withdrawn.

2. Section 111(b) of the Clean Air Act Requires EPA to Regulate Methane Emissions from Oil and Natural Gas Sources

EPA also has a nondiscretionary duty under Section 111(b) of the Clean Air Act to regulate methane emissions from the oil and natural gas source category. Three years ago, EPA determined that the facts in the record for the 2016 Standard were sufficient to support a section 111(b)(1)(A) endangerment and significant contribution finding. In 2016, EPA: (1) revised the oil and natural gas source category to include production, processing, transmission, and storage; [91] and (2) concluded that the oil and natural gas source category—including existing sources

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[86] *Id.*
[87] *Id.*
[88] *Id.*
[89] *Id.*; *accord* 75 Fed. Reg. 54,970, 54,997 (Sep. 9, 2010) (EPA has "historically declined to propose standards for a pollutant where it is emitting [sic] in low amounts or where we determined that a [control analysis] would result in no control" device being used.).
[90] 81 Fed. Reg. at 35,842, 35,827; *see also* 80 Fed. Reg. at 56,595.
[91] EPA stated that the source category as listed in 1979 included oil and natural gas production, processing, transmission and storage, and, "to the extent that there is any ambiguity" in the 1979 listing, revised it to include oil and natural gas production, processing, transmission and storage. *Id*. at 35,832-35,833.

within the category—contributes significantly to air pollution that may reasonably be anticipated to endanger public health or welfare.[92]

EPA also explicitly made an endangerment and significant contribution finding with respect to GHG emissions from the oil and natural gas source category. In the 2016 Standard, EPA stated, "the oil and natural gas industry is the largest emitter of methane," "the current methane emissions from this industry contribute substantially to nationwide GHG emissions," and "ranking U.S. emissions of GHGs from oil and natural gas production and natural gas processing and transmission against total GHG emissions for entire countries . . . these emissions would be more than the national-level emissions totals for all anthropogenic sources for Greece, the Czech Republic, Chile, Belgium, and about 140 other countries."[93] EPA further found that "these emissions are expected to increase as a result of the rapid growth of this industry."[94]

In light of the significant contribution of methane emissions from the oil and natural gas source category, which EPA determined to endanger public health and welfare, EPA properly concluded that methane emissions must be directly addressed through standards of performance under section 111(b)(1).[95] Accordingly, in 2016, EPA finalized standards "based on our determination of the best system of reducing emissions of greenhouse gases (GHGs), specifically methane . . . across a variety of additional emission sources in the oil and natural gas source category (i.e., production, processing, transmission, and storage).[96] EPA compiled a robust administrative record demonstrating that the 2016 Standard met the best system of emission reductions under section 111(b), including "the amount of the pollutant that is being emitted from the source category, the availability of technically feasible control options, and the costs of those control options."[97] EPA further stated, "[s]uch standards, which would be reviewed and, if appropriate, revised at least every eight years, would achieve meaningful methane reductions and, as such, would be an important step towards mitigating the impact of GHG emissions on climate change."

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[92] 81 Fed. Reg. at 35,840 (concluding that the listed oil and natural gas source category, which "includes oil and natural gas production, processing, transmission, and storage," "contributes significantly to air pollution that may reasonably be anticipated to endanger public health or welfare"); *id.* at 35,833 ("[P]ursuant 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.").
[93] *Id*. at 35,839-40.
[94] *Id.* at 35,841.
[95] *Id*.
[96] 81 Fed. Reg. at 35,824, 35,825.
[97] See 80 Fed. Reg. at 56,593, 56,595, 56,610, 56,613-14, 56,616-45 (proposed rule); 81 Fed. Reg. at 35,826-27, 35,829, 35,842, 35,845-46, 35,852, 35,855-56, 35,862, 35,871, 35,878-79, 35,891 (final rule).

Given its determinations in 2016, EPA is no longer writing on a blank slate. The Proposed Rule does not revisit the endangerment finding for GHGs. Nor does it contend that the oil and natural gas source category does not significantly contribute GHGs. Nor does it allege (or cite data to suggest) that the 2016 Standard is no longer achievable, adequately demonstrated, or represent the best system of emission reductions for the oil and natural gas source category. Thus, EPA remains statutorily obligated under section 111(b) of the Clean Air Act to regulate methane emissions from the oil and natural gas source category.

Although EPA may change its policy with respect to *how* to regulate methane emissions from the oil and natural gas source category (assuming that new policy is lawful and well-supported by factual findings and legal analysis), it cannot simply announce a policy of non-regulation now that it has made such findings. *See FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009) (A "new policy" by an agency must be "permissible under the statute."); see also *NRDC v. Daley*, 209 F.3d 747, 755-56 (D.C. Cir. 2000) (holding agency acted arbitrarily for failing to provide "reasoned analysis to cogently explain why its proposal satisfies the [Clean Air Act's] requirements."). Accordingly, EPA's proposal contravenes section 111(b) of the Clean Air Act and EPA does not have the authority to rescind all methane standards for the oil and natural gas source category.

B. EPA's Proposal to Remove Transmission and Storage from the Source Category Is Unlawful and Arbitrary and Capricious

EPA further proposes to remove the transmission and storage segment entirely from the oil and natural gas source category and rescind the requirements of the 2016 Standard applicable to sources within the transmission and storage segment.[98] Under this proposal, the following emission points from the transportation and storage sector would be exempted from regulation under the 2016 Standard: fugitive emission points, pneumatic controllers, reciprocating and centrifugal compressors, and professional engineer certification for closed vent systems.[99] EPA admits that this would result in a significant increase in emissions of methane, VOCs, and hazardous air pollutants.[100] But EPA fails to explain how this proposed source category revision is lawful under section 111(b) of the Clean Air Act. As discussed above, in 2016 EPA determined that the rulemaking record supported a revision of the source category listing to broadly include the oil and natural gas industry (i.e., production, processing, transmission, and storage) that, in the Administrator's judgment, contributes significantly to air pollution which may reasonably be anticipated to endanger public health or welfare. EPA does not reconcile the Proposed Rule with its prior determinations in 2016—specifically, EPA fails to justify its decision to revise the source category to increase emissions of air pollution in direct contravention of EPA's prior endangerment and significant contribution finding under section 111(b) of the Clean Air Act.

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[98] 84 Fed. Reg. at 50,254.
[99] RIA at 2-1 to 2-4.
[100] 84 Fed. Reg. at 50,278.

EPA's proposal to remove transmission and storage is also arbitrary and capricious because EPA reasonably interpreted the 1979 listing of the oil and natural gas source category to broadly cover the natural gas industry:

> [T]he priority list analysis indicated that the EPA evaluated emissions from various segments of the natural gas industry, such as production and processing. The analysis also showed that the EPA evaluated equipment, such as stationary pipeline compressor engines that are used in various segments of the natural gas industry.[101]

Also, when issuing the first sets of standards of performance for this source category in 1984, EPA described the major emission points to include process, storage, and equipment leaks, which can be found throughout the various segments of the natural gas industry.[102] In subsequent agency rulemaking, EPA has interpreted the 1979 listing broadly as creating a source category for the entire oil and natural gas industry.[103] As EPA noted in 2016 and as illustrated in the diagram below, "[t]here are also good reasons for treating various segments of the natural gas industry as one source category" because they "are all important aspects of the natural gas cycle – the process of getting natural gas out of the ground and to the end user."[104]

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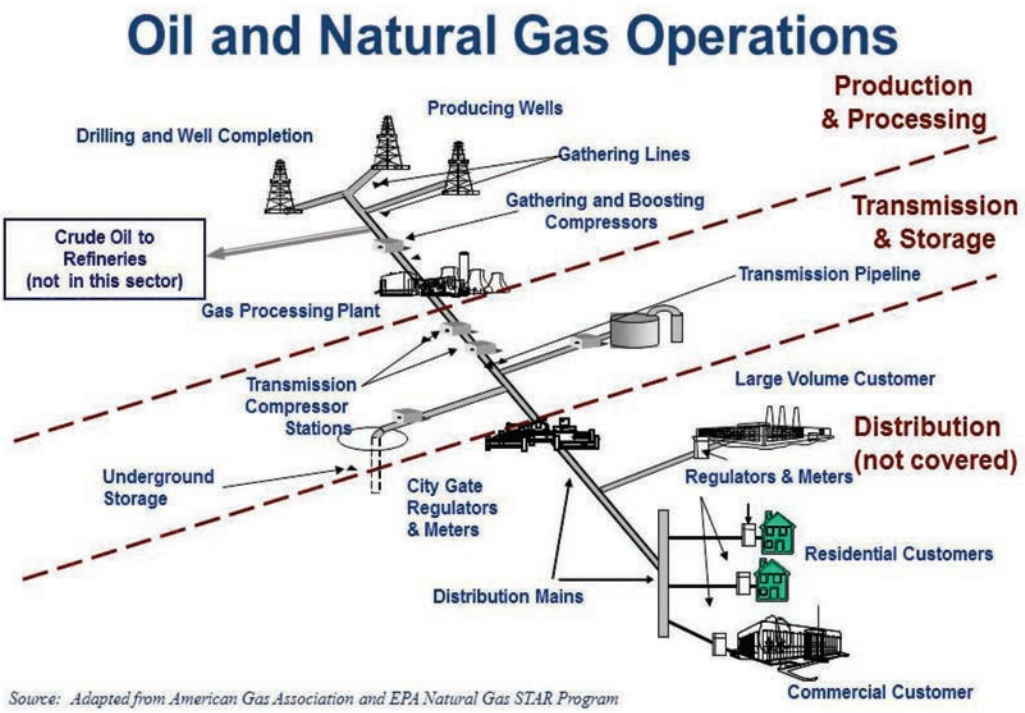
[101] 81 Fed. Reg. at 35,832.

[102] *See* 49 Fed. Reg. 2,696, 2,637 (Jan. 20, 1984) (the source "encompass[es] 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").

[103] *See* 81 Fed. Reg. at 35,832 ("Specifically, with respect to the natural gas industry, it includes production, processing, transmission, and storage."); 76 Fed. Reg. at 52,738 ("Specifically for oil, the sector includes all operations from the well to the point of custody transfer at a petroleum refinery. For natural gas, the sector includes all operations from the well to the customer."); 77 Fed. Reg. at 49, 514.

[104] 81 Fed. Reg. at 35,832; *ibid* ("Operations at production, processing, transmission and storage facilities are a sequence of functions that are interrelated and necessary for getting the recovered gas ready for distribution.")



EPA cited the increase in natural gas production from hydraulic fracturing and horizontal drilling as an example of the interrelated nature of the industry—i.e., increased production resulting in an increase in the amount of natural gas needing to be processed and moved to market or stored, which in turn results in increases in emissions across the entire natural gas industry.[105] EPA further noted that "equipment (e.g., storage vessels, compressors) are used across the oil and natural gas industry," only lending additional support for "considering the industry as one source category."[106] Indeed, because the transmission and storage segment uses the same equipment as the production and processing segment and emits the same pollutants, EPA determined in the 2016 Standard that the same control technologies and practices can be used to control their emissions.[107]

Now, EPA claims that operations of the transmission and storage segment are not related to production and processing "because the natural gas that enters the transmission and storage segment has different composition and characteristics than the natural gas that enters the

[105] *Id.*
[106] *Id.*
[107] 81 Fed. Reg. at 35,828.

production and processing segments."[108] EPA's claim is a distinction without a difference. To support its assertion, EPA compares the average composition of the production segment to the average composition of the transmission segment.[109] But, EPA fails to discuss its own data, indicating a wide range of natural gas composition across the entire sector. For example, according to 2011 data from EPA, the methane content of the natural gas in the production sector ranged from 65.7% to 97.2%, and in the transmission sector, it ranged from 91.9% to 95.2%.[110] Likewise, VOC content of the natural gas in the production sector ranged from 1.2% to 5.7% compared to 0.2 to 6.8% in the transmission sector.[111] EPA's more recent data submitted in support of the Proposed Rule only confirms its 2011 data, with methane content in natural gas from the production segment ranging from 17.5% to 98.4% and VOC content ranging from 0% to 40.9%.[112] Thus, EPA's own data, does not support EPA's contention that the composition of natural gas in the production sector differs so fundamentally from gas in the transmission sector as to justify removing the transmission and storage segment from the oil and natural gas source category.

For these reasons, EPA's proposal to revise the oil and natural gas source category is unlawful. EPA has not provided "a reasoned explanation . . . for disregarding facts and circumstances that underlay" EPA's prior determination that the oil and natural gas source category includes the transmission and storage segment. *Fox*, 556 U.S. at 515-16. The Proposed Rule is therefore arbitrary and capricious, constitutes and abuse of EPA's discretion, and must be withdrawn.

C. EPA's Failure to Adequately Consider the Implications of its Action on Existing Sources Is Unlawful and Arbitrary and Capricious

EPA's proposal to rescind methane standards for all new sources in the oil and natural gas sector under section 111(b) of the Act is a transparent attempt to avoid EPA's concomitant statutory obligation under section 111(d) to promulgate emission guidelines for existing sources in that sector. Methane emissions from existing oil and natural gas sources constitute the majority of methane emissions from the oil and natural gas sector in the United States,[113] which

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[108] 84 Fed. Reg. at 50,257.
[109] *Id.* at 50,258.
[110] Composition of Natural Gas for Use in the Oil and Natural Gas Sector Rulemaking, July 28, 2011.
[111] *Id.*
[112] Natural Gas Composition, November 13, 2018.
[113] Methane emissions from oil and natural gas sources in existence before 2012 constitute the majority of methane emissions from the oil and natural gas sector in the United States. *See* ICF Int'l, Economic Analysis of Methane Emission Reduction Opportunities in the U.S. Onshore Oil and Natural Gas Industries 1 (2014), *available at* http://www.edf.org/sites/default/files/methane_cost_curve_report.pdf.

in turn is the largest industrial emitter of methane in the United States.[114] EPA's stated rationale that new source methane standards are entirely redundant with the requirements for controlling VOC emissions, such that the rescission "will have no impact on the amount of methane emissions,"[115] fails to consider the entirely non-redundant effect of EPA's proposal on the lack of control of the vast majority of methane emissions (and emissions of other harmful pollutants) from existing oil and natural gas sources. Although EPA admits that its proposal will remove its statutory obligation to promulgate methane guidelines for controlling methane emissions from existing sources,[116] it fails to adequately or rationally analyze and account for the effect of its proposal. Because rescission of the new source methane standards will result in a continuing absence of requirements for control of emissions from existing sources that EPA was required to develop contemporaneously with the new source standards, the new source standards cannot fairly be characterized as redundant. EPA's Proposed Rule violates its statutory obligation under section 111(d) of the Clean Air Act, the requirements of section 307(d) of the Act, and principles of rational agency rulemaking.

1. EPA's Proposal Violates Clean Air Act Section 111(d).

For the reasons explained above, EPA's proposal to deregulate methane emissions from new and modified oil and natural gas sources contravenes its statutory obligation under section 111(b) of the Clean Air Act. Similarly, EPA's proposal to deregulate methane and thereby "obviate the need for" EPA to develop emission guidelines for regulating methane emissions from existing sources violates section 111(d) of the Act. Now that EPA has regulated oil and natural gas sector methane emissions under 111(b), it cannot lawfully avoid its obligation to regulate existing sources under 111(d) simply by getting rid of the 111(b) regulation.

In the 2016 Standard, in addition to finding a rational basis for concluding that methane emissions from the oil and natural gas source category merits regulation under section 111, EPA also made a pollutant specific endangerment and significant contribution finding for methane emissions from the oil and natural gas category, including existing sources within such category. Both EPA's rational basis and endangerment/significant contribution determinations were based on overwhelming record evidence regarding the adverse impacts of methane to public health and welfare and the high quantities of methane emissions from the oil and natural gas source category, *including existing sources*.[117] That evidence and additional evidence submitted to the record of this proposed rulemaking could not support a contrary finding.

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[114] *See* 81 Fed. Reg. at 35,842.
[115] 84 Fed. Reg. at 50,259
[116] *Id.* at 50,271.
[117] *See, e.g.*, 81 Fed. Reg. at 35,833-43 (citing to, among other things, EPA's 2009 endangerment finding for GHGs, including methane, 74 Fed. Reg. 66,496 (Dec. 15, 2009), and subsequent assessments validating and lending additional credence to such finding; the fact that the oil and natural gas source category is the largest industrial emitter of methane in the United States; and the high global warming potential of methane, which is 28 to 36 times greater than that of CO_2).

The Supreme Court held more than ten years ago that "[i]f EPA makes a finding of endangerment, the Clean Air Act requires the Agency to regulate emissions of the dangerous pollutant." *Massachusetts v. EPA*, 549 U.S. 497, 533 (2007). According to the Court, "[u]nder the clear terms of the Clean Air Act, EPA can avoid taking further action only if it determines that greenhouse gases do not contribute to climate change or if it provides some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do." *Id.* As two D.C. Circuit judges recognized in the context of EPA's obligation to regulate GHG emissions from existing power plants under section 111(d) of the Clean Air Act, EPA's 2009 endangerment finding "triggered an affirmative statutory obligation to regulate [GHGs]." Per Curiam Order, *West Virginia v. EPA*, D.C. Cir. No. 15-1363 (Aug. 8, 2017) (Tatel, Millett, concurring); *see also Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410, 426-427 (2011) (Clean Air Act "directs the EPA to establish emissions standards for categories of stationary sources" where pollution from those sources endangers public health or welfare).

EPA's 2009 endangerment finding for GHGs and its 2016 rational basis determination and pollutant-specific endangerment/significant contribution finding for methane emissions from the oil and natural gas source category statutorily obligate EPA to regulate such emissions not just from new sources under section 111(b), but also from existing sources under section 111(d). EPA's proposal to deregulate methane entirely from the oil and natural gas source category without any affirmative determination that such emissions do not endanger public health and welfare or that the oil and natural gas sector does not significantly contribute to such endangerment is not permissible under section 111(d) of the Act.

2. EPA's Proposal Violates Clean Air Act Section 307(d).

The Proposed Rule's discussion of the implications of deregulating methane fails to meet the requirements of section 307(d) of the Clean Air Act in several respects. Section 307 mandates that, *in a proposed rule itself*, EPA must provide the public with the "factual data on which the proposed rule is based," and "the methodology used in obtaining the data and in analyzing the data."[118] The Act also mandates that "[a]ll data, information, and documents referred to in this paragraph on which the proposed rule relies shall be included in the docket *on the date of publication of the proposed rule*."[119] Thus, "the comments of other interested parties do not satisfy an agency's obligation to provide notice." *Nat'l Black Media Coal. v. FCC*, 791 F.2d 1016, 1023 (D.C. Cir. 1986).

Notice and comment rulemaking requires an agency to disclose the bases for its proposed regulations, and "serves three distinct purposes." *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 547 (D.C. Cir. 1983). These include "(1) to ensure that agency regulations are tested via exposure to diverse public comment, (2) to ensure fairness to affected parties, and

[118] 42 U.S.C. § 7607(d)(3).
[119] *Id.* § 7607(d)(3) (emphasis added).

(3) to give affected parties an opportunity to develop evidence in the record to support their objections to the rule and thereby enhance the quality of judicial review." *Am. Coke & Coal Chems. Inst. v. EPA*, 452 F.3d 930, 938 (D.C. Cir. 2007); *Util. Solid Waste Activities Grp. v. EPA*, 901 F.3d 414, 442 (D.C. Cir. 2018). The public can only meaningfully analyze and comment on a proposed rule if it has the data supporting the proposed rule. *See Prometheus Radio Project v. FCC*, 652 F.3d 431, 450 (3d Cir. 2011) ("The opportunity for comment must be a meaningful opportunity. That means enough time with enough information to comment and for the agency to consider and respond to the comments." (citing *Rural Cellular Ass'n v. FCC*, 588 F.3d 1095, 1101 (D.C. Cir. 2009))). Congress enacted section 307(d) of the Clean Air Act to provide for even more rigorous requirements than under the Administrative Procedure Act (APA) to ensure that the public and regulated community will have an adequate basis on which to comment on EPA proposals. *See, e.g.*, *Schiller v. Tower Semiconductor, Ltd.*, 449 F.3d 286, 300 n.14 (2d Cir. 2006) (explaining that in section 307(d) Congress provided specific procedures for notice and comment that go beyond what is required under the APA).

EPA cannot make a proposal and solicit data to support that proposal through comments, as it appears to be doing here. Rather than providing the required data and analysis to support its proposal, EPA is apparently using the proposal as an opportunity to solicit data and information that it currently lacks to support a pre-determined policy preference. The proper order of steps under the Act is to gather the data that allegedly supports the proposal *first* and then make that data available for comment through a proposal. Here, to the extent the Administrator gathered or gathers any data at all to support his preferred policy outcome, it does not appear that the public will ever be allowed to comment on that data, undermining the entire purpose of notice and comment. *See Small Refiner*, 705 F.2d at 549-50 ("EPA must *itself* provide notice of a regulatory proposal. Having failed to do so, it cannot bootstrap notice from a comment."); *see Costle*, 657 F.2d at 398 (public must be able to meaningfully comment on factual underpinnings of a rule).

EPA claims that the lack of regulation of existing sources "will" have a limited impact and then presents several speculative hypotheses and "uncertainties," rather than factual data, as to why that "may" be so. [120] EPA then solicits data and other factual information through the rulemaking to support its conclusion. Section 307(d) of the Clean Air Act, 42 U.S.C. § 7607(d)(3), does not permit this. If EPA seeks to obtain factual data to support its desired policy ends, the Clean Air Act provides a different tool for that: a section 114 information collection request.[121]

Should EPA gather data through this proposal and then seek to rely upon it, EPA may not finalize the Proposed Rule, but must instead make that data available to the public for comment

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[120] *See* 84 Fed. Reg. at 50,273-74.

[121] *See id.* § 7414 ("For the purpose of (i) developing or assisting the development of . . . any performance standard under section 7411 of this title . . . (1) the Administrator may require any person who owns or operates any emission source" to provide information).

through a new proposed rule. *See, e.g., American Medical Ass'n v. Reno*, 57 F.3d 1129, 1133 (D.C. Cir. 1995); *Connecticut Light & Power Co. v. NRC*, 673 F.2d 525, 530-31 (D.C. Cir. 1982) ("An agency commits serious procedural error when it fails to reveal portions of the technical basis for a proposed rule in time to allow for meaningful commentary."); *Kennecott Corp. v. EPA,* 684 F.2d 1007, 1018 (D.C. Cir. 1982) (setting aside regulation where agency had not provided underlying factual data in proposed rule); *Daimler Trucks N. Am. LLC v. EPA*, 737 F.3d 95 (D.C. Cir. 2013) (setting aside EPA rule for failure to provide adequate notice and comment); *Sierra Club v. Costle*, 657 F.2d 298, 398 (D.C. Cir. 1981) ("If, however, documents of central importance upon which EPA intended to rely had been entered on the docket too late for any meaningful public comment prior to promulgation, then both the structure and spirit of section 307 would have been violated.").

EPA's discussion of the purported limited impact of lack of regulation of existing sources under section 111(d) from its proposal to rescind methane regulation for new sources is replete with examples of EPA using the proposal to collect supportive information instead of including supporting factual data in violation of section 307(d). For example:

- *EPA is requesting data and information to support its claim that existing sources will retire or will become subject to the existing NSPS regulations because they will undertake modification or reconstruction.*

EPA speculates that methane emissions from existing sources will decline despite its proposed deregulation because existing sources "will" be replaced by new facilities, undertake modifications, or shut down.[122] Yet EPA then admits that it currently lacks sufficient information and analysis to support this claim and solicits information and data to help determine the rate of turnover of existing facilities.[123] EPA says that it is "in the process" of examining the rate of turnover and has reviewed indirect turnover information from three sources: Greenhouse Gas Inventory ("GHGI") activity counts for pneumatic controllers, compressors, storage vessels, and well completions; DrillingInfo for well completions; and compliance reports submitted under the 2016 Standard for the first reported compliance year. At most, EPA states that this information "may be indicative of trends for some sources whereas, for other sources, no conclusions can yet be drawn."[124]

With respect to the first two sources of information (GHGI and DrillingInfo), EPA admits to the "uncertainty in data" from the source and says that it "will need additional information to assess the identified gaps for purposes of identifying trends."[125] EPA "solicits information and data to help evaluate the rate at which existing sources decline over time, through modification,

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[122] 84 Fed. Reg. at 50,271.
[123] *Id.* at 50,273-74.
[124] *Id.* at 50,273.
[125] *Id.* at 50,273, n.90 & 91.

obsolescence, shutdown, replacement to new source status or otherwise."[126] With respect to compliance reports, EPA states that "due to various uncertainties, we are unable to develop a rate at which existing sources become subject to the [2016 Standard]."[127] EPA solicits comment on "ways to use this information to predict turnover trends."[128]

EPA also purports to have reviewed "all [2016 Standard] compliance reports that had been submitted to the Agency through November 21, 2017."[129] However, EPA has no way to verify whether all sources that are "subject to regulation" under the 2016 Standard are in fact complying. In litigation over EPA's unreasonable delay in promulgating emission guidelines for methane emissions from existing oil and natural gas sources, EPA represented that it has no centralized internal mechanism to track compliance reports that are submitted to EPA's regional offices, in paper or electronic form, outside of EPA's Compliance and Emissions Data Reporting Interface (CEDRI).[130] Similarly, EPA possesses directly relevant data submitted to the agency by the regulated facilities that the agency has failed to reference. This includes, but is not limited to, annual compliance reports submitted after November 21, 2017, and information submitted in response to the information collection request (Methane ICR) that EPA issued to obtain "more specific information that would be of critical use in addressing existing source emissions pursuant to CAA section 111(d)."[131] EPA issued the Methane ICR on November 10, 2016 and began receiving the requested information from oil and natural gas operators in January 2017. Yet EPA does not acknowledge the existence of this data or include it in the rulemaking record as required under section 307(b). The undersigned hereby request that EPA include this data in the rulemaking record.

Further, as stated, EPA abruptly withdrew the Methane ICR in March 2017 without any notice or opportunity to comment, purportedly "to assess the need for the information that the agency was collecting."[132] EPA never issued any follow-up ICR or endeavored to collect this information. Much of the data and information that EPA now seeks in the proposal regarding turnover of existing sources would have been collected through the withdrawn Methane ICR, which is the proper mechanism to collect the data necessary to inform any proposal under section 111.

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[126] *Id.* at 50,273; *see also id.* at 50,273-74 (also soliciting specific data and information on the turnover rate of pneumatic controllers, wet seal centrifugal compressors, storage vessel production throughput and turnover rate, and the time period of well completions).
[127] *Id.* at 50,274.
[128] *Id.*
[129] 84 Fed. Reg. at 50,274.
[130] *See* Attachment 10, Email from Heather Gange, U.S. Dep't of Justice, to Morgan Costello, re *New York v. Wheeler*, No. 18-772—Updated EPA Response to Discovery Proposals (Apr. 25, 2019).
[131] 81 Fed. Reg, 35,763, 35,764 (June 3, 2016).
[132] 82 Fed. Reg. 12,817 (Mar. 7, 2017).

- *EPA is requesting comment to support its claim that sufficient market incentives exist to reduce methane emissions from existing sources.*

EPA claims that "existing sources already have market incentives to reduce methane emissions,"[133] but then goes on to admit that its sole source of information for such claim is data collected by the U.S. Energy Information Administration that the Government Accountability Office found to be "limited in several ways, including that the data is voluntarily and inconsistently reported."[134] EPA then "solicits comment on whether sufficient market incentives exist to offset the costs of emissions capture such that total methane emissions will trend downward under these incentives."[135]

- *EPA is requesting data and information to support its claim that participation in voluntary emission reduction programs will reduce methane emissions.*

EPA cites to participation by industry in voluntary emission reduction programs as support for its claim that lack of regulation of existing sources under section 111(d) will not mean a substantial amount of lost emission reductions. While making no effort to quantify the percentage of existing sources that participate in such programs, EPA speculates that "participation may increase over time."[136] EPA then "solicits data and information that the EPA can use to evaluate the aggregate present impact and potential future impact of oil and natural gas industry participation in voluntary programs."[137]

- *EPA is requesting comment on whether state regulatory requirements will meaningfully reduce methane emissions.*

EPA claims that existing sources "in many cases are subject to state requirements" to reduce methane emissions.[138] EPA lists a handful of states that have established regulations on oil and natural gas sector emissions, but does not differentiate which states cover existing sources versus solely new sources. EPA makes no effort to quantify existing sources subject to state methane emission reduction requirements or to quantify the expected emission reductions from such requirements. EPA even admits that it "does not current[sic] have the capability to produce state-level projections of sources in transmission and storage that are potentially affected by this action" and is "unable to perform any quantitative analysis of state programs with similar requirements."[139] EPA solicits comment on "whether there are enough consistent state

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[133] 84 Fed. Reg. at 50,271.
[134] *Id.* at 50,275.
[135] *Id.* at 50,276.
[136] *Id.* at 50,277.
[137] *Id.*
[138] *Id.* at 50,271.
[139] *Id.*

requirements in place that will meaningfully reduce emissions should the primary proposal be finalized."[140]

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Should EPA wish to rely on any of the data or information that is has solicited through the Proposed Rule, it may not finalize the Proposed Rule without making that data and information available for public comment. In the absence of such data, commenters cannot meaningfully comment on the "uncertainties" or gaps in information identified by EPA that have no basis in fact. They cannot perform analysis on or refute the facts; in other words, their ability to "develop evidence in the record to support their objections to the rule" is severely hampered. *Int'l Union, United Mine Workers of Am.*, 407 F.3d at 1259. This undermines the entire purpose of the Clean Air Act's requirements for notice and comment. *See Am. Coke & Coal Chems. Inst.*, 452 F.3d at 938.

3. EPA's Assertion Regarding the Limited Impact of Lack of Regulation of Existing Sources Is Arbitrary and Capricious, Not Supported by Record Evidence, and Unreasonably Disregards EPA's Prior Position Without Any Reasoned Explanation.

EPA's speculative assertion, without sufficient supporting data or analysis, that the lack of regulation of existing sources directly caused by the Proposed Rule to deregulate methane emissions from new sources will have "limited impact" is quintessentially arbitrary and capricious agency action. *See State Farm*, 463 U.S. at 43; *Fox Television Stations*, 556 U.S. at 515-16. EPA's Proposal entirely fails to consider an important aspect of the problem. EPA's Proposal ignores the fact that the lion's share of methane emissions from the oil and natural gas source category, which EPA has already determined cause or contribute significantly endangerment of public health and welfare, comes from existing sources. For example, EPA proposes to determine that EPA lacked a rational basis to establish the 2016 Standard for methane emissions from the production and processing segments because those requirements are "entirely redundant" with the 2016 Standard for VOC.[141] However, EPA's rational basis for concluding in the 2016 Standard that methane from the oil and natural gas source category merits regulation under section 111 was based on its consideration of methane emissions from the *entire* source category, including from existing sources.[142] Regulation of such emissions under section

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[140] *Id.*

[141] 84 Fed. Reg. at 50,259.

[142] *See* 81 Fed. Reg. at 35,838-39, tbls. 4 & 5 (quantifying total methane emissions from the oil and natural gas source category); 35,842 (stating that, in making its rational basis determination, "EPA focuses on methane emissions from this category" and citing to Tables 4 and 5). More recent peer-reviewed scientific studies have found that the United States oil and natural gas industry emits even more than EPA's prior estimates suggest. *See, e.g.*, Alvarez et al., *Assessment of methane emissions from the U.S. oil and gas supply chain*, 361(6398) Science,

(continued…)

111(d) is not in the least redundant of any current regulation of other pollutants under section 111(b). Nonetheless, EPA fails to undertake any quantitative assessment of existing source methane pollution or the foregone benefits of establishing existing source emissions guidelines.

EPA's unsupported assertions are also counter to the evidence before the agency. EPA's failure to issue guidelines for regulation of existing oil and natural gas sources has in fact resulted, and will continue to result, in substantial additional emissions of methane and other harmful pollutants to the significant harm to public health and welfare. Over the at least three-year period of EPA's delay in issuing mandatory guidelines since promulgating the 2016 Standard, existing oil and natural gas sources have emitted a massive amount of methane: over 33 million metric tons of methane, equivalent to the climate impact of over 600 million passenger vehicles driven for one year. [143] If EPA had issued methane guidelines for existing sources identical to the 2016 Standard simultaneously with the issuance of that rule, 12.2 million tons—37 percent—of that methane pollution would have been prevented.[144] Substantial pollution will continue to occur if EPA fails to adopt methane guidelines—allowing well over 3 million metric tons of methane pollution that could otherwise be eliminated each year.[145]

These excess methane emissions are causing and will continue to cause significant environmental impacts. Methane emissions significantly contribute to pollution that causes climate change. *Massachusetts v. EPA*, 549 U.S. at 521. A dire report released a year ago by the Intergovernmental Panel on Climate Change highlights the immediate and pressing need to curb pollutants like methane in the short term to avoid the most devastating effects of climate change.[146] The additional methane emissions that have resulted and will result from EPA's failure to promulgate methane guidelines increase the likelihood of greater harms from climate change. These harms include increased heat-related deaths, damaged or lost coastal areas due to sea level rise and coastal flooding, disrupted ecosystems, more severe weather events, and longer and more frequent droughts. These and other climate change harms were confirmed in the Assessment, a 2018 report issued by EPA itself and other government agencies.[147] Rapid reductions in methane emissions are critical to slowing the rate of warming and reducing the risk of the worst climate change harms. EPA's speculation that lack of existing source regulation will have a limited impact because methane emissions from existing sources may decline over

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(…continued)
186-88 (July 13, 2018) (finding that the sector emitted over 13 million metric tons of methane in 2015—60% higher than EPA's estimates).

[143] *See* Attachment 11, Declaration of Dr. Renee McVay and Hillary Hull, submitted in *New York v. EPA*, Case No. 18-cv-0773 (D.D.C.) at ¶ 11; Attachment 12, Declaration of Ilissa B. Ocko, submitted in *New York v. EPA*, Case No. 18-cv-0773 (D.D.C.) at ¶ 12.

[144] *See* Attachment 11, McVay/Hull Decl. at ¶ 11.

[145] *See id.* at ¶ 12.

[146] IPCC, *Global Warming of 1.5°C – Summary for Policymakers* (2018), *available at* http://www.ipcc.ch.

[147] Assessment, Chapters 18-27 (2018).

some unspecified future time ignores the critical need to obtain the necessary immediate and substantial emission reductions.

EPA's specific claims that eliminating methane regulation from new and modified oil and natural gas facilities will not result in a substantial amount of lost emission reductions because equipment turnover, market incentives, voluntary actions, and state regulations will address the problem are similarly unsupported by any reasoned analysis, contrary to the evidence before the agency, and inconsistent with findings EPA itself made in prior rulemakings, including the 2016 Standard. EPA has provided no rational basis for its drastic shift in position. *See Lone Mountain Processing, Inc. v. Secretary of Labor*, 709 F.3d 1161, 1164 (D.C. Cir. 2013) ("[A]n agency changing its course must supply a reasoned analysis indicating that prior policies and standards are being deliberately changed, not casually ignored. Failing to supply such analysis renders the agency's action arbitrary and capricious"). More specifically:

- *EPA's claims regarding equipment turnover are unsupported and thus arbitrary and capricious.*

As discussed above, EPA not only fails to substantiate its "belie[f]" that "it is reasonable to expect that the number of existing sources may decline over time due to obsolescence or to shut down and removal actions" but specifically solicits comment to support its conjecture.[148] Indeed, EPA's perfunctory review only serves to reveal its uncertainty.[149] Given that EPA abruptly withdrew the Methane ICR it had issued to obtain "more specific information that would be of critical use in addressing existing source emissions pursuant to CAA section 111(d),"[150] EPA lacks the necessary information that could support a reasoned analysis and thus its action is arbitrary and capricious. *Encino*, 136 S. Ct. at 2125.

- *EPA's claim regarding market incentives is arbitrary and capricious.*

EPA also argues that "operators have market incentives to reduce emissions and the loss of valuable product to the atmosphere," despite relying on data that is "voluntarily and inconsistently reported" to support this argument.[151] As explained in comments submitted by Catherine Hausman and Daniel Raimi from the University of Michigan, EPA's reasoning is flawed: if there is an externality associated with methane emissions, then private actors will

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[148] 84 Fed. Reg. at 50,273.
[149] *Id.* (noting that "the available information may be indicative of trends for some sources whereas, for other sources, no conclusions can yet be drawn").
[150] 81 Fed. Reg, at 35,764.
[151] 84 Fed. Reg. at 50,275.

reduce emissions at a rate that is less than optimal for society as a whole, which is precisely why EPA develops and enforces emissions regulations such as those in question.[152]

EPA's claim also runs counter to the evidence, which shows that as a result of current low natural gas prices, economic incentives are not sufficient to address the problem. *See State Farm*, 463 U.S. at 43. For example, widespread flaring of natural gas continues to occur in several of the largest oil-producing areas of the country. In fact, the practice has hit record levels as companies drill for oil in shale fields in the Permian Basin in Texas and the Bakken field in North Dakota because, according to producers, gas prices are so cheap it is not worth building pipelines to transport to market the large amounts of natural gas produced along with oil.[153] In the Permian Basin, oil companies flared 553 million cubic feet a day during the fourth quarter of 2018, which is the highest level since 2011 and more than some small states use in a year.[154] An analysis of state data in Texas shows that three of the fifteen biggest producers in the Permian Basin oil field flared more that 4% of the gas they produced in 2018, and five companies were flaring a greater percentage of their gas in 2018 than in 2016.[155] Flaring in the Permian Basin increased to an average of 661 million cubic feet of gas per day in the first quarter of 2019, more than twice the level from the first quarter of 2018 and more than the output of the biggest offshore gas field in the Gulf of Mexico.[156] Analysts further estimate that the Permian Basin will flare 1 Bcf/day (approximately .027 short ton/day equivalent) in the coming year (2019-2020).[157]

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[152] Comment submitted by Catherine Hausman, Assistant Professor, Gerald R. Ford School of Public Policy, University of Michigan and Daniel Raimi, Kleinman, Senior Research Associate, Resources for the Future, Docket ID No. EPA-HQ-OAR-2017-0757 (Oct. 16, 2019).
[153] *See* Lee, *Gas glut spurs near-record flaring across shale states*, E & E News, May 8, 2019, *available at* https://www.eenews.net/energywire/stories/1060292021/.
[154] *See* Rystad Energy, *Permian natural gas flaring exceeds 500 MMcfd in 4Q18* (Feb. 21, 2019), *available at* https://www.eenews.net/assets/2019/05/06/document_pm_02.pdf; Rystad Energy, *Permian Gas Flaring Reaches Yet Another High* (Nov. 5, 2019), *available at* https://www.rystadenergy.com/newsevents/news/press-releases/permian-gas-flaring-reaches-yet-another-high/.
[155] *See* http://blogs.edf.org/texascleanairmatters/2019/08/14/new-permian-data-show-how-worst-offenders-prevent-progress-on-flaring/?utm_source=email&utm_campaign=expert_none_upd_ngas&utm_medium=email&utm_id=1565795196&utm_content=not-vocus.
[156] Lee, *Permian Basin flaring doubles, hits record*, E & E News (June 5, 2019), *available at* https://www.eenews.net/energywire/stories/1060481837/.
[157]Davis, *Permian Natural Gas Flaring Said Likely to Hit 1 Bcf/d-Plus Until Pipeline Cavalry Arrives*, NGI (Mar. 26, 2019), *available at* 2020) https://www.naturalgasintel.com/articles/117831-permian-natural-gas-flaring-said-likely-to-hit-1-bcfd-plus-until-pipeline-cavalry-arrives?v=preview.

In North Dakota, the industry flared 526 million cubic feet a day in October 2018, the highest since the state began keeping records in 1990.[158] And while oil production from the Bakken Shale field hit a new record in June 2019 at 1.4 million barrels a day, the oil industry also wasted 24% of the natural gas it produced that month, burning 686 million cubic feet a day in flares rather than ship it to markets.[159] And oil production in Texas' Eagle Ford formation flares and vents nearly 100 million standard cubic feet per day.[160] This widespread flaring directly undercuts EPA's speculative claim that market incentives are sufficient to reduce emissions. Similarly, the low price of natural gas disincentivizes operators from finding and fixing methane leaks in order to bring additional product into the market.

- *EPA's claims regarding voluntary and state regulatory programs are arbitrary and capricious.*

EPA suggests with little to no analysis that voluntary and state regulatory programs will fill the regulatory vacuum.[161] These claims also run counter to the evidence before the agency. *State Farm*, 463 U.S. at 43. Of the thousands of oil and natural gas sources across the United States, only about 1% participate in voluntary programs to address methane emissions.[162] Further, even the participants in these voluntary programs, such as major oil companies like Exxon Mobil Corp., BP PLC, and Royal Dutch Shell PLC, recognize that voluntary efforts are not enough to address the problem and support EPA's direct regulation of methane from both new and existing sources.[163]

With respect to state regulations, EPA has failed to analyze whether the cited state rules are even applicable to existing sources.[164] To the contrary, state regulations only overlap with about 5% of the methane pollution that could be reduced by federal guidelines applied to existing sources.[165] In addition, many states do not directly regulate methane emissions. And, as demonstrated by the widespread flaring occurring in Texas and North Dakota cited above, state regulators continue to allow massive amounts of methane emissions from oil and natural gas operations notwithstanding state regulations. For instance, the Texas Railroad Commission has

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[158] Lee, *Gas glut spurs near-record flaring across shale states*, *supra* note 149.
[159] Lee, *Stopping gas flaring? N.D. governor looks to 'innovation'*, E & E News (Sept. 6, 2019), *available at* https://www.eenews.net/energywire/2019/09/06/stories/1061111287.
[160] Amer. Chem. Soc'y, *Reducing gas flares, pollution from oil production*, ScienceDaily (Aug. 17, 2016), *available at* https://www.sciencedaily.com/releases/2016/08/160817131702.htm.
[161] 84 Fed. Reg. at 50,276-77.
[162] See http://blogs.edf.org/energyexchange/2019/09/03/epas-proposal-to-rollback-methane-rules-ignores-scientific-evidence-will-lead-to-5-million-tons-of-methane-pollution/.
[163] *Supra* note 67.
[164] 84 Fed. Reg. at 50,277 n.102.
[165] *See* Attachment 11, McVay/Hull Decl. at ¶¶ 13-14.

granted hundreds of waivers to operators to allow flaring of natural gas, even when there are pipelines in place to transport the gas to market.[166]

EPA's suggestion that direct regulation of methane is not necessary because such emissions will be reduced and controlled through voluntary programs and state regulations also is directly contrary to the position the agency took in its 2016 Standard. In its responses to public comments, EPA explained why voluntary and state regulatory programs are not sufficient and thus it is necessary to directly reduce methane emissions from this source category through federal standards. Though agreeing that some emissions reductions have been achieved as a result of state requirements and voluntary programs, EPA explained that the NSPS is needed to counteract a general increasing trend in emissions:

> The EPA's GHG Inventory, which tracks total national emissions and includes data from 1990-2014, shows an increase in emissions from natural gas and petroleum production and natural gas processing, transmission and storage of 7 percent from 2011-2014, also with emissions from some sources declining and others increasing. Over the full GHG Inventory time series, these emissions increase 16 percent from 1990-2014, and have shown a general increasing trend in more recent years, for example, an increase of 10 percent from 2005-2014. The EPA disagrees with the commenter that the NSPS is unnecessary. The final NSPS is needed to reduce emissions from the oil and natural gas sector, and the health, welfare, and environmental benefits of this action once implemented will be significant.[167]

Contrary to the position EPA now takes, the agency in 2016 also recognized that: "While some states have made progress in establishing standards and reducing emissions, it is important to establish federal standards in order to yield a consistent and accountable national program. This will provide a clear path for states and other federal agencies to further align their

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[166] Lee, *Flaring could threaten industry—Texas regulator*, E & E News (Oct. 23, 2019) *available at* https://www.eenews.net/energywire/stories/1061350989; *see also* Lee, *Texas vote triggers brawl over gas flaring*, E & E News (Aug. 7, 2019), *available at* https://www.eenews.net/energywire/2019/08/07/stories/1060869793; Lee, *Stopping gas flaring? N.D. governor looks to 'innovation'*, *supra* note 155.

[167] *See* Attachment 15, EPA Responses to Public Comment on 2016 Proposed Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, Chapter 12: Regulatory Impact Analysis, at 12-26.

programs."[168] Indeed, the 2016 Standard was "designed to complement current state and other federal regulations."[169]

The proposal represents a reversal of EPA's "former views as to the proper course." *See Public Citizen v. Steed*, 733 F.2d 93, 98 (D.C. Cir. 1984). EPA has failed to provide any explanation for its about-face change in policy position, let alone a reasoned justification, and has failed to provide a reasoned explanation for its rejection of its previous factual findings. *Fox Television Stations*, 556 U.S. at 515-16; *North Carolina v. EPA*, 531 F.3d 896, 906 (D.C. Cir. 2008) (quoting *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43)).

4. The Clean Air Act Section 108 Exclusion from Regulation for Criteria Pollutants Does Not Excuse EPA from Regulating Existing Sources of VOC Emissions from the Oil and Natural Gas Industry

In addition to its unlawful about-face on regulating methane emissions from existing sources, EPA also attempts to dodge its nondiscretionary duty to regulate VOC emissions from existing sources. EPA begins its discussion of existing source regulation by noting that Clean Air Act section 111(d) "authorizes" the regulation of existing sources for which a performance standard would apply if newly constructed.[170] But EPA is not just "authorized" to regulate existing sources, it has a nondiscretionary duty to do so—section 111(d) states that EPA "*shall* prescribe regulations" if the statutory test is met, as it is here.[171] EPA attempts to sidestep the very existence of a legal duty and then lays out a tortured interpretation of the Clean Air Act to explain why it should not have to regulate existing sources anyway. EPA errs on both counts.

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[168] *See* Attachment 15, EPA Responses to Public Comment on 2016 Proposed Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, Chapter 13: Existing State, Local, and Federal Rules, at 13-11.

[169] 81 Fed. Reg. at 35,831 ("[T]hese rules are designed to complement current state and other federal regulations. We carefully evaluated existing state and local programs when developing these federal standards and attempted, where possible, to limit potential conflicts with existing state and local requirements. We recognize that, in some cases, these federal rules may be more stringent than existing programs and, in other cases, may be less stringent than existing programs. We received over 900,000 comments on the proposed rule. After careful consideration of the comments, we are finalizing the standards with revisions where appropriate to reduce emissions of harmful air pollutants, promote gas capture and beneficial use, and provide opportunity for flexibility and expanded transparency in order to yield a consistent and accountable national program that provides a clear path for states and other federal agencies to further align their programs.").

[170] 84 Fed. Reg. at 50,272.

[171] 42 U.S.C. § 7411(d)(1); *Shall*, BLACK'S LAW DICTIONARY (11th Ed. 2019) ("Has a duty to; more broadly, is required to . . . the mandatory sense that drafters typically intend and that courts should typically uphold[.]").

Clean Air Act section 111(d) provides that EPA "shall prescribe regulations" for states to develop plans with standards of performance "for any existing source for any air pollutant. . . to which a standard of performance under this section would apply if such existing source were a new source."[172] However, section 111(d) provides two carve-outs, only one of which is relevant here. The requirement to regulate existing sources does not apply if "air quality criteria have [] been issued" for the pollutant at issue or it is "included on a list published under section 7408(a) of this title."[173] This carve-out exclude from mandatory regulation under this section those pollutants that are already regulated as a criteria pollutant under Clean Air Act section 108 and well-controlled through the State Implementation Plan (SIP) process. As EPA noted in a proposed rulemaking in 1991, the goal of this provision is to regulate pollutants that "may cause or contribute to endangerment of public health or welfare but . . . [are] not controlled under sections 108 through 110 of the CAA."[174]

The oil and natural gas sources that are the subject of EPA's proposed rulemaking emit methane, HAP, and VOCs. By declining to regulate methane emissions from new sources, EPA removes methane from section 111(d)'s existing source requirement entirely, as methane emitted from the oil and gas sector will no longer be "an air pollutant" emitted from an existing source "to which a standard of performance . . . would apply if such existing source were a new source." As EPA acknowledges (though does not evaluate, as discussed *supra*), this decision to rescind the methane standard of performance for new sources has the "legal consequence" that existing sources in the source category "will not be subject to regulation under CAA section 111(d)."[175] However, even if EPA proceeds with its unlawful rescission of methane from regulation under 111(b), EPA still has a nondiscretionary duty to issue emission guidelines for VOC emissions from existing sources in the oil and gas source category.

EPA argues VOC emissions fall within the exclusion for pollutants already regulated under CAA section 108.[176] This theory is critically flawed: VOCs are not criteria pollutants, nor are they included on any list published under section 108(a). Instead, EPA argues that because VOCs are *precursors* to pollutants that *are* listed under section 108(a), VOC must also be excluded from regulation under section 111(d). But this is not what the statute says, and EPA's attempts to circumvent section 111(d)'s clear mandate are unavailing.[177]

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[172] 42 U.S.C. § 7411(d).
[173] *Id.* § 7411(d)(1).
[174] 56 Fed. Reg. at 24,469 (May 30, 1991).
[175] 84 Fed. Reg. at 50,272.
[176] 84 Fed. Reg. at 50,272.
[177] EPA also seeks comment on "the implications of the fact that methane in the atmosphere serves as a precursor to tropospheric ozone," implying that methane's status as an ozone precursor may fall within section 111(d)'s exclusion for criteria pollutants even if it were regulated under 111(b). 84 Fed. Reg. at 50,269. For the same reasons elaborated in this

(continued…)

If an air pollutant is emitted from an existing source that would be subject to an NSPS if it were a new source, EPA is required to regulate unless "air quality criteria have [] been issued" for the air pollutant at issue or if it is "included on a list published under section 7408(a) of this title." EPA bases its argument on the fact that precursors are included in the Clean Air Act's definition of "air pollutant." Specifically, the Clean Air Act provides that the term "air pollutant" includes "any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term 'air pollutant' is used."[178] But the fact that VOC, as a precursor to ozone and fine particulate matter (PM2.5), could be considered an "air pollutant" only satisfies the *initial* condition of section 111(d)'s carve out for criteria air pollutants ("any air pollutant"). It is not dispositive of the question whether the exclusion for air pollutants that are regulated as criteria pollutants apply here. Indeed, this exclusions cannot apply, since VOCs are not regulated as criteria pollutants.

EPA nonetheless argues that the definition of "air pollutant" is determinative because the term's statutory definition grants EPA discretion to decide what is included or excluded "for [the] particular purpose" the term is used. Thus, EPA concludes that it is appropriate to "classify VOC as a listed CAA section 108(a) pollutant for the particular purpose of applying the CAA section 108(a) exclusion in section 111(d)."[179] EPA makes four arguments supporting why the "particular purpose" of section 111(d) supports its interpretation, but each argument fails to grapple with the plain meaning of section 111(d), which creates a nondiscretionary duty for EPA to regulate VOC emissions from existing sources in the oil and gas industry.

EPA first argues that VOCs are "regulated under the CAA's NAAQS/SIP program" because they are precursors to listed pollutants ozone and PM, pointing to provisions of the Clean Air Act relating to requirements for ozone non-attainment areas that explicitly call for

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(…continued)
discussion with respect to VOCs, methane's status as an ozone precursor is irrelevant to whether EPA has a nondiscretionary duty to regulate methane emissions under section 111(d).

[178] In full, the Clean Air Act provides the following definition:

> The term "air pollutant" means any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term "air pollutant" is used.

§ 42 U.S.C. § 7602(g).

[179] 84 Fed. Reg. at 50,272.

reductions in VOC emissions.[180] However, the statutory test for whether a pollutant is excluded is not whether it is "regulated under" section 108 or section 110, the test is whether air quality criteria have been issued for the pollutant at issue, or the pollutant has been listed under section 108.[181] Neither is true here for VOC. The only pollutants for which air quality criteria have been issued or included on a list published under section 108(a) are sulfur dioxide, particulate matter smaller than 10 and 2.5 microns, carbon monoxide, ozone, oxides of nitrogen, and lead.[182]

Next, EPA makes a structural argument that excluding VOCs from regulation under 111(d) makes sense with respect to that section's "gap-filling" role, since VOCs are already "regulated as pre-cursors under CAA sections 108-110" and thus there is no gap to be filled.[183] However, this argument ignores the legislative history of section 111(d). Section 111(d) began as a Senate proposal with an explicit list of pollutants to be regulated.[184] Ultimately, this explicit list was replaced with gradually broader phrasing until the language we see today was included in the 1970 Clean Air Act Amendments. The legislative history reflects Congress' intent to give EPA the flexibility to regulate a broad range of pollutants, rather than to constrain EPA's discretion to a designated list of pollutants subject to regulation under section 111(d).[185] EPA's current interpretation would restrict the applicability of section 111(d) to a narrower set of pollutants than Congress intended, and indeed, to a narrower set of pollutants than the agency

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[180] 84 Fed. Reg. at 50,272 (citing Clean Air Act §§ 182(b)(1), (b)(2) & (c)(2)(B)).
[181] EPA's own section 111(d) implementing regulations reflect this distinction. 40 C.F.R. § 60.21a(a) (defining "designated pollutant" as "any air pollutant, the emissions of which are subject to a standard of performance for new stationary sources, but for which air quality criteria have not been issued and that is not included on a list published under section 108(a) or section 112(b)(1)(A) of the Act").
[182] *See* 40 C.F.R. Part 50 (National Primary and Secondary Ambient Air Quality Standards).
[183] 84 Fed. Reg. at 50,272.
[184] S. Rep. No. 91-1196 at 18 (Sept. 17, 1970).
[185] Early proposals in the Senate limited the existing source provisions to listed agents "[a]rsenic, chlorine gas, hydrogen chloride, copper, manganese, nickel, vanadium, zinc, barium, boron, chromium, selenium, pesticides, [and] radioactive substances." *Id*. But the last version printed in the Senate included broader applicability for "any air pollution agent or combination of such agents which is not subject to [section 108-110 or section 112] of this Act, and which has or may be expected to have an adverse effect on public health and the presence of which, in the ambient air, results from emissions from categories of stationary sources as defined pursuant to the provisions of [this section] of this Act." 91 H.R. 17255 (Sept. 22, 1970) (internal statutory references updated). And the final version of the Clean Air Act Amendments was enacted with language very similar to what we see in today's Clean Air Act, limiting applicability to "any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 108(a) or 112(b)(i)(A) but (ii) to which a standard of performance under subsection (b) would apply if such existing source were a new source[.]") Pub. L. No. 91-604, 84 Stat. 1676 (Dec. 31, 1970).

itself has regulated in the past.[186] Contrary to EPA's assertions in its Proposal, such a narrow interpretation upends the very idea of a "gap-filling" provision intended to give the agency the flexibility to regulate a broad range of pollutants where necessary to fill gaps left by the NAAQS and NESHAP programs.

Third, EPA analogizes to another provision in CAA section 112 to ostensibly demonstrate that Congress would have explicitly subjected precursors to regulation in section 111(d) if it wanted to, because it did so in section 112.[187] However, EPA's analogy is inapposite here. First, as EPA acknowledges, Congress provided a flexible definition of "air pollutant" depending on "the *particular purpose* for which the term 'air pollutant' is used."[188] And the particular purpose for which the term "air pollutant" is used in section 112 is quite different than in section 111(d). The relevant statutory provision in section 112 excludes from regulation as a HAP any "air pollutant[s] listed under section [108(a)]. . . except that. . . precursor[s] to a pollutant which [are] listed under section [108(a)]" can be regulated as a HAP.[189] EPA argues that to interpret the phrase "air pollutant[s] listed under section [108(a)]" as being exclusive of precursors would render meaningless the exception in 112(b)(2) for precursors. That may be true in the context of section 112, but it does not follow that the same interpretation applies in section 111, which lacks such an express statutory exception. Section 111(d) is a gap-filling provision—as described above, Congress intended the existing source provisions of section 111(d) to be a flexible route for EPA to fill gaps left by the NAAQS and NESHAPs. Section 112, on the other hand, was amended in 1990 with the specific Congressional intent to provide EPA with *less* discretion, rather than more. Congress was dissatisfied with EPA's slow pace identifying HAPs and regulating sources, and amended section 112 by removing the identification of HAPs from EPA's discretion and instead creating a list of almost 200 HAPs and a mandatory schedule for issuing emission standards.[190] That Congress expressly chose to subject criteria precursors to regulation in section 112 during amendments intended to cabin EPA's discretion and "force regulatory action"[191] does not support an interpretation that Congress intentionally chose to exclude criteria precursors from regulation under section 111(d), a gap-filling provision which Congress intended to provide flexibility. And given that the

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[186] *See* discussion of Municipal Solid Waste Landfills, *supra*.
[187] 84 Fed. Reg. at 50,272.
[188] CAA § 302 (emphasis added).
[189] CAA § 112(b)(2).
[190] S. Rep. 101-228 (Dec. 20, 1989) at 3 ("Very little has been done since the passage of the 1970 Act to identify and control hazardous air pollutants. In the nineteen year history of the Clean Air Act, just eight substances have been listed as hazardous air pollutants. . . NESHAPS have been promulgated for sources of only seven of these pollutants."); *id.* at 155-56 ("By establishing in the statute an initial list of chemicals to be regulated and requiring that the standards be based on maximum achievable control technology, the bill forces regulatory action to overcome the inertia that has plagued the health-based, standard-setting process authorized by current law. The reported bill creates a strong presumption to regulate a very large number of air pollutants. . .").
[191] *Id.* at 156.

definition of "air pollutant" explicitly demonstrates that its use may vary within the Clean Air Act depending on the particular purpose, EPA's analogy between different sections with different purposes does not withstand scrutiny.

In addition to the adequacy of its statutory arguments, EPA fails to acknowledge that its new interpretation contradicts the agency's own position in other regulations. In 1996, EPA finalized parallel rulemakings for new and existing municipal solid waste (MSW) landfills under Clean Air Act sections 111(b) and 111(d), respectively. Pollutants deemed harmful to human health emitted from MSW landfills included methane, VOCs, hazardous air pollutants, and odorous compounds, collectively termed "landfill gas."[192] EPA chose to use non-methane organic compounds (NMOC), which includes VOC, as a surrogate for landfill gas in it setting standards of performance and emissions guidelines for new and existing MSW landfills under CAA section 111(b) and 111(d). *Id.* EPA updated these regulations in 2016, with its new Emission Guidelines "expected to significantly reduce emissions of LFG [landfill gas] and its components, which include methane, *volatile organic compounds (VOC*), and hazardous air pollutants (HAP)."[193] EPA noted that reducing methane had become more important since the prior 1996 rulemaking, which had focused on NMOC (including VOCs) "because NMOC contain[ed] the air pollutants that at that time were of most concern due to their adverse effects on public health and welfare."[194] Thus, the 2016 Standard was focused on "reducing [both] the NMOC and methane components of LFG."[195] EPA acknowledged VOC was a precursor to criteria pollutants PM2.5 and ozone, but nowhere did EPA make the argument the agency now raises that VOCs' status as a precursor means that it is not subject to regulation under section 111(d).[196]

EPA's final argument, that it "has discretion to identify which pollutants should be classified as precursors for particular regulatory purposes," likewise falls short. First, it contradicts the agency's own argument in the preceding paragraphs that the definition of "air pollutant" in an unrelated provision should be considered analogous to the provision at issue here. Given that Congress provided flexibility in the definition of "air pollutant" depending on the particular regulatory purpose, the term's meaning in an unrelated provision does not have any bearing on its meaning here. Second, even if EPA does arguably have discretion in defining "air pollutant," it has failed to explain how its interpretation fits within the plain language of section 111(d). *See, e.g.*, *UARG v. EPA*, 573 U.S. 302, 321 (2014) ("Even under Chevron 's deferential framework, agencies must operate 'within the bounds of reasonable interpretation.' … And reasonable statutory interpretation must account for both 'the specific context in which ... language is used' and 'the broader context of the statute as a whole.'") And as demonstrated above, EPA's narrow interpretation also does not make sense within section 111(d)'s gap-filling

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[192] 61 Fed. Reg. at 9,905 (March 12, 1996).
[193] 81 Fed. Reg. at 59, 279 (Aug. 29, 2016) (emphasis added).
[194] *Id.* at 59, 281.
[195] *Id.*
[196] *See, e.g.*, *id.* at 59,281.

purpose. EPA has arbitrarily and capriciously interpreted section 111(d) in a manner contrary to its plain language, the structure of the Clean Air Act, and the agency's own prior practice.

D. EPA Fails to Consider Other Important Aspects of the Problem

1. The Proposed Rule Will Increase Interstate Transport of Ozone Affecting Downwind States

EPA does not dispute that the Proposed Rule will result in increased VOC emissions from the oil and natural gas sector. In fact, EPA acknowledges that the Proposed Rule will result in thousands of additional tons per year of VOCs from the transmission and storage segment.[197] VOC emissions are a precursor to ozone, but EPA has not addressed how its action will impact States' efforts to attain the ozone national ambient air quality standards (NAAQS), especially with respect to interstate transport issues, an area where courts have found EPA's efforts to be woefully inadequate. *See, e.g., New York v. EPA*, No. 19-1019 (D.C. Cir., Oct. 1, 2019) (vacating EPA's Determination Regarding Good Neighbor Obligations for the 2008 Ozone National Ambient Air Quality Standard, 83 Fed. 65,878 (Dec. 21, 2018) (Close-Out Rule)); *New York v. Wheeler*, No.19-CV-3287 (S.D.N.Y., July 25, 2019) (declaring EPA's failure to take action on New York's petition under section 126(b) of the Clean Air Act to be a violation of the statute and permanently enjoining EPA to take final action of such petition).

For example, Colorado is currently a Moderate nonattainment area for the 2008 ozone NAAQS, facing reclassification to Serious.[198] Colorado is also a Marginal nonattainment area for the 2015 ozone NAAQS.[199] Colorado has a regulatory program that includes stringent controls on the oil and gas industry, and Colorado's program largely applies to both new and existing sources.[200] However, several upwind states do not impose the level of controls found in Colorado's program and instead rely upon the 2012 Standard and the 2016 Standard to reduce emissions from this industry.

Colorado's monitors that typically register the most pollution (Chatfield, Rocky Flats North, and NREL) demonstrate the significant influence from upwind state emissions. EPA itself has estimated the impact to Colorado from upwind states, impact Colorado has evaluated as part of its "weight of evidence" analysis in its Moderate area ozone State Implementation Plan attainment demonstration, which was approved by EPA in 2018, as follows: [201]

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[197] *See* RIA at §1.4.
[198] 84 Fed. Reg. 41,674 (Aug. 15, 2019).
[199] 83 Fed. Reg. 25,776 (June 4, 2018).
[200] *See* 5 Colo. Code Reg. § 1001-9:XII and XVII.
[201] *See* 80 Fed. Reg. 46,271 (Aug. 4, 2015); Colorado's Moderate Area Ozone State Implementation Plan for the Denver Metro and North Front Range Nonattainment Area, approved by the EPA at 83 Fed. Reg. 31,068 (July 3, 2018).

	Chatfield	Rocky Flats North	NREL
Texas	0.35	1.58	1.15
New Mexico	0.13	1.05	0.54
Utah	1.59	0.87	1.34
Wyoming	1.22	0.67	0.73
California	1.23	1.75	1.93
5–State Total	4.52	5.92	5.69

Of these states, several are large oil and natural gas producing states, where emissions reductions from both new and existing sources may be foregone as a result of the Proposed Rule, threatening Colorado's ozone attainment efforts.

The Proposed Rule is deficient because EPA fails to address or justify how its action will impact Colorado and other downwind states negatively impacted by oil and natural gas emissions from upwind states.

2. EPA Has Not Addressed Whether, and to What Extent, the Proposed Rule Impacts Ozone Attainment Modeling

States that have areas currently designated as being in nonattainment of the ozone NAAQS with a classification of Moderate or higher have performed, and are likely still in the process of performing, ozone modeling to demonstrate attainment of the ozone NAAQS.[202] For example, Colorado submitted, and obtained approval of, its attainment demonstration as part of its Moderate area ozone State Implementation Plan, required by 42 U.S.C. §7511a(b)(1).[203] Further, as EPA has proposed to reclassify Colorado to Serious, Colorado is in the process of developing its attainment demonstration to submit with its Serious area ozone State Implementation Plan.[204] Colorado is not the only State engaged in this process.

States often rely upon EPA's oil and natural gas inventories in the development of their own inventories for oil and natural gas for purposes of ozone modeling. For example, Colorado is conducting continental scale photochemical grid modeling for ozone State Implementation Plan development work in the Denver Metro-North Front Range nonattainment area. Generally, Colorado develops the in-state emission inventory, except for some source sectors that rely on

[202] 42 U.S.C. §7511a(b)(1), (c)(1).
[203] 83 Fed. Reg. 31,068 (July 3, 2018).
[204] 84 Fed. Reg. 41,674 (Aug. 15, 2019).

EPA's National Emissions Inventories (NEI). For other areas in the model domain but outside of Colorado, the emission inventories rely on the EPA NEI and other emissions inventories developed jointly by EPA and Multi-Jurisdictional Organizations (MJO). The Proposed Rule does not address the extent to which EPA's oil and natural gas inventories rely on the 2016 Standard, nor does it address the impact to past and ongoing State attainment modeling that incorporates and relies upon EPA's inventories.

3. EPA's Regulatory Impact Analysis Is Arbitrary and Capricious in Relying on the "Interim" Social Cost of Methane

The Proposed Rule is also arbitrary and capricious because EPA improperly calculates its costs and benefits based on an inherently flawed Regulatory Impact Analysis. *See Center for Biological Diversity v. Bureau of Land Mgmt*., 422 F. Supp. 2d 1115, 1149 (N.D. Cal. 2006) (finding it arbitrary and capricious for agency's economic analysis "to rely on a critical assumption that lacks support in the record to justify" decision). EPA's new social cost of methane calculation not only departs from agency practice but also violates Executive Order 13,783 and the Office of Management and Budget's (OMB) Circular A-4—both of which, EPA concedes, guide EPA's analysis here—by failing to use the best available science and an appropriate discount rate.

In attempt to justify the Proposed Rule, EPA has calculated the costs and benefits using an "interim domestic Social Cost of Methane" metric that greatly undervalues the impacts of increased methane emissions by failing to consider the full, global impacts of these emissions.[205] This new interim measure instead considers only "domestic" impacts. The effect of this swap is to significantly reduce the estimated benefits of the 2016 Standard, rendering them lower than largely unchanged compliance costs, without reasoned justification or basis in the record. EPA claims that Executive Order 13,783 directed EPA to rely on this "interim" measure.[206] However, Executive Order 13,783 still requires agencies to "monetiz[e] the value of changes in greenhouse gas emissions" and ensure that such estimates are "consistent with the guidance contained in OMB Circular A-4."[207] OMB Circular A-4, in turn, requires that agencies use "the best reasonably obtainable scientific, technical, and economic information available. To achieve this, [agencies] should rely on peer-reviewed literature, where available."[208]

The Interagency Working Group ("IWG")'s approach continues to represent the best available science in monetizing the impacts of changes in GHG emissions, despite that Executive Order 13,783 disbanded the IWG and withdrew the technical support documents upon which the prior social cost of methane calculation was based. Federal agencies first developed the social

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[205] RIA at 3-7.
[206] *Id.,* at 3-8.
[207] 82 Fed. Reg. at 16,096.
[208] Office of Management and Budget, Circular A-4, at 17 (Sept. 17, 2003), *available at* https://www.whitehouse.gov/omb/circulars_a004_a-4 ("OMB Circular A-4").

cost of GHGs under President George W. Bush. The IWG was specifically organized to develop a single, harmonized value for federal agencies to use in their regulatory impact analyses under Executive Order 12,866. The IWG developed its approach over several years, through robust scientific and peer-reviewed analyses and public processes.

By contrast, EPA's "interim" measure lacks substantial analysis, much less peer review, and arbitrarily ignores most of the costs imposed by methane emissions. As EPA itself admits, the metric "will be used in regulatory analysis until improved domestic estimates can be developed …."[209] EPA's substitution of the IWG's social cost of methane with an unvetted and outcome-driven "interim" measure is arbitrary and capricious. Moreover, even EPA's underlying estimate of domestic damages is flawed. The 2017 paper by William D. Nordhaus on which EPA relies for that estimate demonstrates that such estimates vary based on the model used, and the author himself states that "regional damage estimates are both incomplete and poorly understood," and "[a] key message here is that there is little agreement on the distribution of the [social cost of carbon] by region."[210] Furthermore, neither Executive Order 13,783, OMB Circular A-4, nor Executive Order 12,866 allows EPA to completely ignore international impacts in its Regulatory Impact Analysis. To the contrary, OMB Circular A-4 specifically recognizes that a regulation may "have effects beyond the borders of the United States," and states that an agency's economic analysis should encompass "all the important benefits and costs likely to result from the rule," including "any important ancillary benefits."[211] Further, OMB Circular A-4 provides guidance for the implementation of Executive Order 12866, which directs agencies to assess "all costs and benefits" of regulatory actions.[212]

Nor does the best available science support the use of a "domestic-only" value of the social cost of GHG emissions.[213] The effects of GHGs do not stop at the U.S. border; emissions in India and China, for example, can cause damage to U.S. companies and citizens (and vice versa). EPA's use of a domestic number to justify greater U.S. emissions creates a dangerous precedent that other countries may also follow to relax their own emissions. Such increased global emissions will, in turn, harm the U.S. and its citizens.[214] EPA's domestic social cost of methane also omits important spillover effects on U.S. corporations. The negative effects of global climate change—such as increased armed conflicts and extreme weather events—impact

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[209] RIA at 3-9.
[210] Nordhaus, William D., *Revisiting the social cost of carbon*, 114(7) Proceedings of the Nat'l Acad. of Sciences of the United States, 1518-23 (2017), *available at* http://www.pnas.org/content/114/7/1518.full.pdf.
[211] OMB Circular A-4.
[212] Executive Order 12866, 58 Fed. Reg. 51,735 (Oct. 4, 1993).
[213] *See* Attachment 13, Expert Report by Maximilian Auffhammer et al., The Use of the Social Cost of Carbon in the Federal Proposal "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks," (Oct. 19, 2018) (EPA-HQ-OAR-2018-0283-5842).
[214] *Id.,* at 7-8.

U.S. corporations both directly (through assets they own) and indirectly (through disruptions of supply chains).[215] Using a domestic social cost of methane also fails to consider the welfare of nine million U.S. citizens living abroad and 450,000 men and women serving in the U.S. armed forces abroad who are affected by extreme weather events outside U.S. borders. Moreover, despite sound science demonstrating that climate change will lead to an increase in the frequency of conflict domestically and globally, EPA fails to account for the likelihood that the number of American troops who will be deployed abroad will increase.[216] The "domestic only" approach is further belied by the Assessment, which contains an entire chapter on "Climate Effects on U.S. International Interests."[217] Consequently, EPA cannot ignore the global costs of increased methane emissions that will result from the Proposed Rule.

Furthermore, the use of a seven percent discount rate is contrary to the best available science and thus arbitrary and capricious.[218] In a 2015 survey of experts in the economics of climate change, the median discount rate chosen was 2% (when they were asked to choose a fixed discount rate; in fact, half the experts supported the concept of a discount rate that declines over time).[219] EPA itself, over a decade ago, made the case for considering even lower discount rates:

> There are reasons to consider even lower discount rates in discounting the costs of benefits of policy that affect climate change. First, changes in GHG emissions—both increases and reductions—are essentially long-run investments in changes in climate and the potential impacts from climate change. When considering climate change investments, they should be compared to similar alternative investments (via the discount rate). Investments in climate change are investments in infrastructure and technologies associated with mitigation; however, they yield returns in terms of avoided impacts over a period of one hundred years and longer. Furthermore, there is a potential for significant impacts from climate change, where the exact timing and magnitude of these impacts are unknown. These factors imply a highly uncertain investment environment that spans multiple generations. When there are important benefits or costs that affect multiple generations of the population, EPA and OMB allow for low but positive discount rates (e.g., 0.5–3% noted by U.S. EPA, 1–3% by OMB).[220]

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[215] *Id.,* at 9-10.
[216] *Id*., at 10-11.
[217] Assessment at ch. 16.
[218] Drupp, M.A., Freeman, M., Groom, B. and Nesje, F., *Discounting disentangled*, 10(4) American Economic Journal: Economic Policy, American Economic Association 109-34 (Nov. 2018).
[219] Expert Consensus on the Economics of Climate Change, Institute for Policy Integrity, 2015, at 20. https://policyintegrity.org/files/publications/ExpertConsensusReport.pdf
[220] Regulating Greenhouse Gas Emissions Under the Clean Air Act, 73 Fed. Reg. 44353, 73414 (2008).

Because of the long-term, irreversible consequences of climate change, the effects of emissions today will be felt for many years into the future. Thus, as OMB explained in 2015, "the use of 7 percent is not considered appropriate for intergenerational discounting. There is wide support for this view in the academic literature, and it is recognized in Circular A-4 itself."[221] The Proposed Rule fails to provide a reasonable justification for adding consideration of a seven percent discount rate.

Finally, the Regulatory Impact Analysis fails to consider adequately the unquantified, foregone benefits of the 2016 Standards, such as the public health benefits of reducing many additional tons of VOC emissions, or the numerous health and welfare consequences of climate change – such as health effects of forest fires, or the decline of the shellfish industry due to ocean acidification - that are not accounted for in the Social Cost of Carbon models.[222] As OMB Circuit A-4 provides, "when there are important non-monetary values at stake, you should also identify them in your analysis so policymakers can compare them with the monetary benefits and costs. When your analysis is complete, you should present a summary of the benefit and cost estimates for each alternative, including the qualitative and non-monetized factors affected by the rule, so that readers can evaluate them."[223] EPA has failed to consider such impacts in its Proposed Rule.

III. SECTION 111(B) DOES NOT REQUIRE EPA TO MAKE A POLLUTANT-SPECIFIC SIGNIFICANT CONTRIBUTION FINDING FOR GHG EMISSIONS (OR FOR METHANE SPECIFICALLY) FROM THE SOURCE CATEGORY AS A PREREQUISITE TO REGULATING THOSE EMISSIONS

The interpretation of section 111(b) that EPA set forth in the 2016 Standard is correct. EPA should not now reverse its interpretation and adopt the position that it must determine that each individual pollutant from an already-listed source category be evaluated to determine whether it "causes, or significantly contributes to" dangerous air pollution before EPA can issue

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[221] Interagency Working Group on the Social Cost of Carbon, Response to Comments: Social Cost of Carbon for Regulatory Impact Analysis under Executive Order 12,866 at 36 (July 2015).
[222] The paper *Omitted Damages: What's Missing From the Social Cost of Carbon* (Peter Howard, for EDF, NRDC and the Institute for Policy Integrity, 2014) details some of the numerous costs of climate change that are not included in the social cost of carbon models:

> These omissions include climate impacts on the following market sectors: agriculture, forestry and fisheries (including pests, pathogens and weeds, erosion, fires, and ocean acidification); ecosystem services (including biodiversity and habitat loss)); health impacts (including Lyme disease and respiratory illness from increased ozone pollution, pollen, and wildfire smoke).

Omitted Damages at 5.
[223] OMB Circular A-4 at 3.

standards of performance for that source category. As explained below, EPA has no valid justification for changing its existing interpretations in response to comments it solicits in Section IV of the Proposed Rule.

A. EPA Cannot Reverse its Position Merely by Asking for Comments on Whether it Should Adopt a New Position Diametrically Opposed to Both Current Law and the Position it Maintains in the Proposed Rule

EPA states in the Proposed Rule that it is not proposing to change its legal interpretation of its authority to regulate GHG emissions from the oil and natural gas source category under section 111. After summarizing the legal justifications it relied on in the 2016 Standard to regulate GHG emissions from these sources, EPA reaffirms that "EPA proposes to retain its current interpretation that it is not required to make a pollutant-specific [significant contribution finding], for the same reasons that it noted in the [2016 Standard]."[224] But EPA also oddly requests comments on legal interpretations it is explicitly rejecting and not proposing. Yet throughout Section VI of the Proposed Rule,[225] EPA invites comment on whether, in fact, it lacks the authority to regulate GHG from these sources on the current record and how it could go about regulating them in some other manner.

Section 307(d)(3) of the Clean Air Act, 42 U.S.C. § 7607(d)(3), requires EPA to issue a specific notice of a "proposed rule" as a focal point for public comments, which "shall be accompanied by a statement of its basis and purpose." To satisfy that requirement, a final rule need not be identical to a proposed rule, but it must be a "logical outgrowth." *See Portland Cement Ass'n v. EPA*, 665 F.3d 177, 189 (D.C. Cir. 2011). EPA's use of Section VI to solicit comments supporting legal interpretations it says it is not proposing raises the suspicion that the agency is simply fishing for grounds on which it can reverse these legal positions in the final agency action (or in some later rulemaking), and thereafter claim that the public had sufficient notice of that outcome in this Proposed Rule. This would violate bedrock principles of administrative rulemaking and the Clean Air Act.

In *Environmental Integrity Project v. EPA*, 425 F.3d 992 (D.C. Cir. 2005), the D.C. Circuit Court rejected a similar attempt by EPA. There, EPA proposed to codify its interpretation of the rules through an amendment of regulatory text, but wound up adopting a conflicting interpretation in the final action. In finding that EPA violated the Administrative Procedure Act, the court observed that "[w]hatever a 'logical outgrowth' of this proposal may include, it certainly does not include the Agency's decision to repudiate its proposed interpretation and adopt its inverse." *Id.* at 998. The court explained that mentioning in the proposal the converse of the Agency's proposed position—as EPA does here in Section VI—does not satisfy basic administrative rulemaking requirements:

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[224] 84 Fed. Reg. at 50,246; *see also id.* at 50,261.
[225] *Id.* at 50,261-71

> EPA argues that it met its notice-and-comment obligations because its final interpretation was also mentioned (albeit negatively) in the Agency's proposal. However, this argument proves too much. If the APA's notice requirements mean anything, they require that a reasonable commenter must be able to trust an agency's representations about *which particular* aspects of its proposal are open for consideration. A contrary rule would allow an agency to reject innumerable alternatives in its Notice of Proposed Rulemaking only to justify any final rule it might be able to devise by whimsically picking and choosing within the four corners of a lengthy "notice." Such an exercise in "looking over a crowd and picking out your friends," does not advise interested parties how to direct their comments and does not comprise adequate notice . . . .

Id. at 998 (citations omitted); see also Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 549 (D.C. Cir. 1983) ("EPA must itself provide notice of a regulatory proposal. Having failed to do so, it cannot bootstrap notice from a comment."); *Shell Oil Co. v. EPA*, 950 F.2d 741, 760 (D.C. Cir. 1991) ("[W]hen a final rule bears little resemblance to the one proposed, the parties are deprived of their [Administrative Procedure Act] rights to notice and comment.").

EPA cannot revoke the legal justifications for the 2016 Standard based on comments it receives in response to its Proposal *not* to change those justifications, as doing so would serve as a boundless exception to Clean Air Act rulemaking requirements. In addition, for the reasons explained above, EPA also may not use comments submitted in response to this Proposed Rule as a basis taking final action on other standards of performance applicable to sources outside the oil and natural gas source category.

B. There is No Justification for EPA to Reverse its Interpretation of Section 111(b)

EPA is correct that it need not make a new endangerment and significant contribution finding each time it regulates an additional pollutant from a source category that is already listed under section 111(b)(1)(A), and it should not reverse its position. Forty years ago, EPA found the oil and natural gas source category to be a significant contributor to air pollution that endangers public health and welfare, and it listed it pursuant to section 111(b)(1)(A). Based on the fact that these sources were already listed, EPA's legal position has been that it may establish additional standards of performance for the source category—such as the GHG standards it issued in 2016—so long as it demonstrates that it has acted reasonably (i.e., with a "rational basis") in setting the additional standards of performance under section 111(b)(1)(B).

> [B]ecause the EPA is not listing a new source category in this rule, the EPA is not required to make a new endangerment finding[226] with regard to the oil and natural gas source category in order to establish standards of performance for an additional pollutant from those sources. Under the plain language of CAA section 111(b)(1)(A), an endangerment finding is required only to list a source category. Though the endangerment finding is based on determinations as to the health or welfare impacts of the pollution to which the source category's pollutants contribute, and as to the significance of the amount of such contribution, the statute is clear that the endangerment finding is made with respect to the source category; CAA section 111(b)(1)(A) does not provide that an endangerment finding is made as to specific pollutants.[227]

In addition, there are no differences between GHG (such as methane) and other pollutants that would support EPA creating an exception to its current position that additional, separate endangerment and significant contribution findings are not required each time it regulates an additional pollutant by an already-listed source category. Such a change in position would be especially unwarranted where EPA already found the pollutant to endanger public health and welfare.[228] Furthermore, the U.S. Supreme Court ruled in *Massachusetts v. EPA*, 549 U.S. 497, 520 (2007), that GHG meet the definition of "air pollutant" under the Clean Air Act and premised its decision in *AEP v. Connecticut*, 564 U.S. 410, 424 (2011), on its view that section 111 applies to GHG emissions.

C. EPA Has Not Historically Interpreted Section 111(b) to Mandate an Additional "Significantly Contributes" Finding Before It Can Regulate a New Pollutant From a Previously Listed Source

EPA now—by parsing tangential language from a 1977 guideline document for phosphate fertilizer plant emissions—for the first time purports to discover that "it appears to be the case that the EPA in the past did so interpret CAA section 111(b)(1)(A) to require a pollutant-specific SCF as a prerequisite for regulating that pollutant."[229] The quoted language does not establish

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[226] EPA explained in the 2016 Standard that throughout that document, it used the phrase "endangerment finding" to "encompass[] both of the 'causes or contributes significantly to' component and the 'endanger public health or welfare' component of the determination" required under section 111(b)(1)(A). 81 Fed. Reg. at 35,828.
[227] 81 Fed. Reg. at 35,841-42.
[228] *See id.,* at 35,833-40; Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,510, 64,530-31 (Oct. 23, 2015) (making endangerment and contribution findings for GHG from fossil fuel-fired power plants under section 111(b)(1)(A)); Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (Dec. 15, 2009).
[229] 84 Fed. Reg. at 50,266.

that this was EPA's previous interpretation. In that document, EPA was not discussing subsequent listings of pollutants from previously listed sources—which is what EPA has put at issue in this request for comment—and, of course, it would have had no occasion to do so in such a guideline document. The quoted language is better read to simply explain the general relationship between section 111(b) regulation of new sources and section 111(d) regulation of existing sources: the only pollutants from existing sources subject to 111(d) are those that are already regulated for that source category under section 111(b). Thus, the excerpt from the 1977 phosphate fertilizer document simply does not show that EPA had earlier taken the position it now suggests. Instead, EPA's practice has often been to list source categories under section 111(b)(1)(A) without first making specific "contribute significantly" findings for any specific pollutants at all.[230] EPA's citation to this isolated 1977 language does not provide a "reasoned basis" for EPA to change its position. *See Fox Television*, 556 U.S. at 516.

D. Neither GHG Emissions (In General) Nor Methane Emissions From the Oil and Natural Gas Sector (In Particular) Give EPA a Basis to Reverse Course and Evaluate a New Pollutant-Specific Significant Contribution Finding

Even if EPA determines that section 111(b)(1)(A) is "ambiguous" with respect to whether it must make a pollutant-specific significant contribution finding for an already-listed 111(b) source category before regulating emissions of that pollutant,[231] there is no reason for it to reexamine its authority to regulate GHG emissions from this source category. The oil and natural gas source category continues to emit a large amount of GHG to the atmosphere, in both absolute and relative terms. Given the harms produced by increasing atmospheric concentrations of GHG, it would be irrational for EPA to decide to remove existing emissions controls by creating new legal interpretations to constrain its authority to implement section 111. EPA would not have a reasoned basis for reversing its current position that GHG emissions from the oil and natural gas source category are significant under section 111(b)(1)(A).

In making its 2016 finding that GHG emissions from the oil and natural gas source category contribute significantly to air pollution that endangers health and welfare, EPA noted the relative size of those emissions.[232] Further, EPA properly concluded in 2016 that whether the

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[230] *See* List of Categories of Stationary Sources, 36 Fed. Reg. 5,931 (Mar. 31, 1971); Priority List and Additions to the List of Categories of Stationary Sources, 44 Fed. Reg. 49,222 (Aug. 21, 1979).
[231] 84 Fed. Reg. at 50,266-67
[232] *See* 81 Fed. Reg. at 35,838 & tbl.3 ("Natural gas and petroleum systems are the largest emitters of methane in the United States. These systems emit 32 percent of United States anthropogenic methane."); *id.* at 35,830 ("According to data from the Greenhouse Gas Reporting Program (GHGRP), oil and natural gas operations are the second largest stationary source of GHG emissions in the United States . . . , second only to fossil fuel electricity generation."); *id.*

(continued…)

GHG emissions from the oil and natural gas source category are considered on a domestic or global scale, they are significant:

> [T]he collective GHG emissions from the oil and natural gas source category are significant, whether the comparison is domestic (where this sector is the largest source of methane emissions, accounting for 32 percent of United States methane and 3.4 percent of total United States emissions of all GHG), global (where this sector, while accounting for 0.5 percent of all global GHG emissions, emits more than the total national emissions of over 150 countries, and combined emissions of over 50 countries), or when both the domestic and global GHG emissions comparisons are viewed in combination.[233]

EPA further took the position in its response to public comments on the proposal that became the 2016 Standard that the rule would be significant even though climate change is a global phenomenon. EPA correctly explained that:

> [I]t is precisely because climate change is a global phenomenon that small percentage changes are so relevant. There are hundreds of countries, and thousands of sources, so no individual country of source will be a substantial fraction of the whole. Therefore, reducing the rate of climate change is not a matter of reducing a few large sources, but rather of addressing a large number of smaller sources. Therefore, reductions of a fraction of a percent can be substantial and important when solving a global problem.[234]

Data EPA cites in the Proposed Rule show that nothing about the source category has changed that would justify EPA reversing its position that GHG emissions from those sources contribute significantly to dangerous air pollution. EPA now calculates that the source category emits 29 percent of U.S. anthropogenic methane, 3 percent of total U.S. GHG emissions, and 0.4 percent of global GHG emissions.[235] The difference between EPA's new figures and the ones it determined in 2016 met the criteria for a significant contribution finding are negligible and do not support EPA reversing its previous finding. *See Fox Television*, 556 U.S. at 516 ("a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy"); *National Cable & Telecommunications Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 981 (2005)

(…continued)
at 35839 ("[T]hese emissions (CH_4 and CO_2) account for 4.0 percent of total United States domestic GHG emissions.").
[233] 81 Fed. Reg. at 35,840.
[234] *See* Attachment 15, EPA Response to Comments on the EPA's Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, at 2-37 (May 2016), Docket ID EPA-HQ-OAR-2010-0505-7632.
[235] 84 Fed. Reg. at 50,249, 50,271 tbl.7 & tbl.8.

("Unexplained inconsistency" in agency policy is "a reason for holding an interpretation to be an arbitrary and capricious change from agency practice.")

E. EPA Has Not Presented a Credible Argument That Congress Did Not Mean What It Said In Section 111(b)(1)(A)

Citing to *Engine Manufacturers Association v. EPA*, 88 F.3d 1075, 1089 (D.C. Cir. 1996), EPA suggests that maybe it does not need to follow the directions Congress gave to it in section 111(b)(1)(A) if, "as a matter of historical fact, Congress did not mean what it appears to have said, or that, as a matter of logic and statutory structure, it almost surely could not have meant it."[236] There is no reason for EPA to conclude, however, that Congress could not have meant that a significance finding only needs to be made at the time the source category is initially listed under section 111(b)(1)(A).

Retaining EPA's current interpretation (as articulated in the 2016 Standard) does not produce an anomalous result. EPA raises the possibility that unless it conducts a separate significant contribution analysis for each pollutant emitted by the source, EPA could list the source category on the ground that a combination of pollutants significantly contributed, and then have to regulate each pollutant on an individual basis.[237] EPA has not historically considered this to be a problem. Indeed, in the 1978 document EPA now cites to for the history of the oil and natural gas source category, EPA was well aware that in prioritizing source categories for section 111(b) listing and development of performance standards, some sources would have more than one pollutant of concern regulated under that section.[238]

Moreover, in 1979 when EPA made a general finding that this source category itself (and 58 others) were significant sources and therefore listed under section 111(b)(1)(A), it did not identify the pollutants causing the significant contribution for each source category.[239] Five years later, EPA issued section 111(b) performance standards for the oil and natural gas source category in two separate rulemakings, three months apart—one for VOCs and one for sulfur dioxide—neither of which analyzed or even mentioned whether one, both, or a combination of

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[236] 84 Fed. Reg. at 50,263.
[237] 84 Fed. Reg. at 50,263.
[238] Priorities for New Source Performance Standards Under the Clean Air Act Amendments of 1977, at 111, Apr. 1978, EPA–450/3–78–019 ("It was assumed that whenever a standard was set for a pollutant from a source category, the standards for all other pollutants from that source were also set. To account for the additional work required to develop standards for other pollutants, it was assumed that a 25% increase in effort would be required for each additional pollutant. Thus, a source emitting 5 pollutants would require as much effort as 2 sources emitting only one pollutant each.") (Docket ID EPA-HQ-OAR-2017-0757-0009, att. 1).
[239] Priority List and Additions to the List of Categories of Stationary Sources, 44 Fed. Reg. 49,222, 49,225 (Aug. 21, 1979); *see also* 84 Fed. Reg. at 50,262 (acknowledging that "the SCFs for the source categories did not identify the air pollutants").

those two pollutants significantly contributes to harmful emissions.[240] Contrary to what EPA suggests in the Proposed Rule, the "anomalous result" would be if EPA were now to adopt a new interpretation of section 111(b)(1)(A) that would call into question the validity of the listing process EPA has been using for decades for dozens of source categories, including for oil and natural gas sources.

EPA also suggests that its current rational basis interpretation could be irrational because it is not explicitly defined in the Clean Air Act.[241] Given that many decisions delegated to EPA (and other federal agencies) are governed by a default rational basis standard, also found in section 706(2)(A) of the Administrative Procedure Act, it is more reasonable to conclude that Congress could have intended that standard to govern the regulation of subsequent pollutants from previously-listed sources in the absence of any other prescription for how EPA is to make the decision. Certainly, the independent existence of the rational basis standard apart from the Clean Air Act does not show that Congress "could not have meant" what it said in section 111(b)(1)(A). The Proposed Rule points out that "in instances before [2016] in which the EPA has relied on the 'rational basis' approach, the EPA has done so to justify not setting standards for a given pollutant, rather than to justify setting a standard for a pollutant."[242] There is no reason to believe that Congress originally in 1970—or in 1977 when it amended the relevant language in section 111(b)(1)(A) and demanded that EPA *accelerate* the issuance of section 111(b) standards—intended to make it *harder* for EPA to regulate an additional pollutant than not to regulate an additional pollutant.

That Congress may have required pollutant-specific findings for other regulatory schemes under other sections of the Clean Air Act does not demonstrate that Congress could not have intended EPA to be able to regulate subsequent pollutants from a listed source so long as EPA has a rational basis to do so. EPA now suggests that Congress's use of different terms in different sections "might reasonably be viewed as heightening the anomaly of interpreting CAA 111(b)(1)(A) not to impose the same requirement."[243] But instead of being an anomaly, Congress's choice to use different phrasing in different sections, especially because it amended them all at the same time in the same section of the 1977 Amendments,[244] shows that Congress knew how to require pollutant-specific findings when it wanted to do so.

EPA's suggestion that Congress possibly did not say what it meant when it drafted section 111(b) in 1970 because it "conflated" pollutant-specific significant contribution findings with source-category significant contribution findings is not supported. EPA's claim that Congress

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[240] Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants, 50 Fed. Reg. 26,124 (June 23, 1985); Standards of Performance for SO_2 Emissions from Onshore Natural Gas Processing, 50 Fed. Reg. 40,160 (Oct. 1, 1985).
[241] 84 Fed. Reg. at 50,263.
[242] *Id.* at 50,263.
[243] 84 Fed. Reg. at 50,263.
[244] Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 401, 91 Stat. 685, 790-91.

redrafted section 111 and other provisions in 1977 with "cause and contribute" style finding requirements with an aim to "create a uniform standard of proof," actually supports the inference that Congress intended the words of section 111(b) to mean what they say. If Congress had originally "conflated" the two concepts in 1970, as EPA suggests, it had ample opportunity to disentangle them and say what it really meant when it redrafted some of the language in that provision in 1977. But instead Congress retained the same structure in 111(b).

EPA now also speculates that the 1977 amendments to section 111(f) directing EPA to add new source categories by considering the quantity of emissions that each category will emit and "the extent to which each such pollutant may reasonably be anticipated to endanger public health or welfare" could mean that "Congress recognized the EPA's ability to consider, under CAA section 111, the impacts of specific pollutants," and that EPA would only be considering pollutants it had determined "may reasonably be anticipated to endanger."[245] EPA's actions in response to this direction from Congress do not show that EPA ever had that understanding. Instead, EPA did not proceed to make specific "contribute significantly" or endangerment findings for each source or each pollutant, but instead prioritized the timing of setting performance standards for source categories it had already listed under section 111(b).[246]

F. If EPA Reverses its Current Legal Interpretation and Determines That Section 111(b) Requires a Pollutant-Specific Significant Contribution Finding, It Should Not Take Any Action to Call Into Question the Validity of Previously Issued NSPS and Section 111(d) Guidelines and State Plans

As EPA concedes, it "has proceeded under the implicit assumption that [111] does not require a pollutant-specific SCF through many NSPS rulemakings over a lengthy period."[247] In promulgating the dozens of NSPS over the past four decades, EPA typically has made broad findings that the source category emitted pollutants that significantly contributed to pollution that endangered health and welfare, without basing that determination on a source-specific analysis of the quantity, relative contribution, or harm from each and every pollutant to be regulated. EPA has provided no evidence to the contrary. Reversing course now and calling into question, or worse, repealing, its dozens of NSPS would be arbitrary and capricious and would harm the reliance interests of states, regulated sources, and citizens who relied on the continuation of EPA's regulatory interpretations.

An example of EPA's typical approach for regulating multiple pollutants from a source under section 111(b) is its NSPS for stationary compression internal combustion engines,

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[245] 84 Fed. Reg. at 50,265.
[246] *See* Priorities for New Source Performance Standards Under the Clean Air Act Amendments of 1977, Apr. 1978, EPA–450/3–78–019.
[247] 84 Fed. Reg. at 50,266.

finalized in 2006.[248] The NSPS set standards limiting emissions of five different pollutants—nitrogen oxides (NO_X), particulate matter (PM), sulfur dioxide (SO_2), non-methane hydrocarbons (NMHC), and carbon monoxide (CO)—with varying performance standards for each pollutant depending on the engine's power and type.[249] The proposed rule for those engines described harms from each of the pollutants and stated in general that reducing each will provide health and welfare benefits. But EPA did not propose that each individual pollutant on its own "contributes significantly to" air pollution endangering health and welfare. Instead, it simply proposed that emissions from the source category collectively "contribute significantly to air pollution and cause adverse health and welfare effects associated with ozone, PM, NO_X, SO_X, CO, and NMHC."[250] The final rule said even less, not formally making a "contribute significantly" finding as to the pollutants either collectively or individually, and simply stating that "[t]he standards will implement section 111(b) of the Clean Air Act (CAA) and are based on the Administrator's determination that stationary [engines in the category] cause, or contribute significantly to, air pollution that may reasonably be anticipated to endanger public health or welfare."[251]

If EPA now contradicts decades of practice and interpretation and undermines or repeals the dozens of NSPS it has issued during that time, health and welfare will suffer. After all, preventing harm to health and welfare from their pollutants is why section 111(b) required EPA to regulate those sources in the first place. EPA's reversal of precedent would also call into question the validity of state implementation plans that were based in part on the continued existence of regulation under section 111(b), as well as the validity of state and federal plans based on section 111(d) guidelines. This result would be arbitrary and capricious for failure to take into account the reliance interests and significant harms that would result from EPA's new interpretation. *See Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117, 2126 (2016) ("In explaining its changed position, an agency must also be cognizant that longstanding policies may have 'engendered serious reliance interests that must be taken into account.'"); *Mingo Logan Coal Co. v. EPA*, 829 F.3d 710, 723-24 (D.C. Cir. 2016) (explaining that the "more detailed justification" requirement in *Fox Television* can be independently triggered by either reliance interests or agency reversal of a previous position); *id.* at 218-19 (Kavanaugh, J., dissenting) (arguing that EPA failed to provide the "more detailed justification" required when it revoked a coal mine's permit; "When a permit induces reliance, it has long been recognized that those settled expectations should not be lightly disturbed by intervening government action.").

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[248] Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, Final Rule, 71 Fed. Reg. 39,154 (July 11, 2006).
[249] *Id.* at 39,156 tbl.1.
[250] Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, Proposed Rule, 70 Fed. Reg. 39,870, 39,881-82 (July 11, 2005).
[251] 71 Fed. Reg. at 39,154.

G. It Would be Arbitrary and Capricious to Create a Separate Process and Standard for GHG Emissions That are Different From Those Applied to other Air Pollutants

In yet another attempt to undermine regulation of GHG emissions under section 111, EPA suggests that its new mandatory significant contribution finding (and endangerment finding) requirement may apply only to GHG because that pollutant was not regulated at the time the oil and natural gas source category was first listed under section 111(b).[252] Even if the new interpretation were lawful, nothing in the Clean Air Act suggests that EPA can apply its new interpretation only to a particular pollutant or set of pollutants, such as GHG, and doing so would be arbitrary and capricious and contrary to the text, structure, and purpose of the Act. Similarly, EPA's suggestion that there could be some exception to its new interpretation for those pollutants regulated "shortly []after" the initial listing of a source category has no basis in the statute or rational rulemaking. It appears aimed at making regulation of GHG emissions more difficult based on a principle that EPA would be unwilling to apply to any previous listings that followed the same allegedly flawed process. In other words, EPA's suggestion of a new, higher burden before regulating GHG seems designed only to undermine its rules for fossil fuel fired power plants and oil and natural gas facilities.[253] This rationale is plainly arbitrary and unlawful and fails to satisfy EPA's burden to justify its changed interpretation. *See Fox Television*, 556 U.S. at 516.

IV. EVEN IF EPA WERE REQUIRED TO MAKE A POLLUTANT-SPECIFIC SIGNIFICANT CONTRIBUTION FINDING FOR GHG, THE ENDANGERMENT AND SIGNIFICANT CONTRIBUTION FINDINGS EPA MADE FOR THE 2016 STANDARD AMPLY SATISFIED THAT REQUIREMENT

EPA concedes that it has already made the findings it is puzzling over now.[254] But it also asks for comment on whether the well-supported findings it made in 2016 were "an appropriate methane-specific finding."[255] EPA has no authority to remove a performance standard from a portion of a source category when there exists a valid listing determination for that source category. Instead, according to *Fox Television*, EPA would have to make the countervailing findings that pollutants from this source category do not significantly contribute to air pollution

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[252] 84 Fed. Reg. at 50,266-67.
[253] Regardless, such an interpretation would not affect these sources because EPA did explicitly find that GHG emissions from these source categories significantly contribute to air pollution that endangers health and welfare. *See* section II.A.2, above.
[254] 84 Fed. Reg. at 50,262. ("[I]n both the EGU CO_2 NSPS rule and the [2016 Standard], the EPA also stated that, in the alternative, if it were required to make a pollutant-specific SCF for GHG (with a focus on CO2 and methane, respectively), it was making that finding, citing the same information that it relied on for the rational basis determinations.").
[255] *Id.* at 50,267.

that endangers health and welfare. Moreover, there is no authority allowing the agency to suddenly adopt a vague standard like "appropriateness" to evaluate its previous conclusions.

EPA solicits comments on whether—since it proposes to eliminate, incorrectly, the transmission and storage segment from the source category—the 2016 significant contribution finding "can be considered appropriate in light of the fact that it was based on a greater amount of emissions than are in the source category proposed in this rulemaking."[256] Even if EPA eliminates the transmission and storage segment from the source category, the 2016 significant contribution finding remains appropriate and binding. EPA's 2016 explicit finding that the source category that included transmission and storage met the section 111(b)(1)(A) listing criteria due to its significant GHG emissions was appropriate at the time it was made, and it continues to provide the requisite findings even if EPA reduces the scope of the source category. EPA now calculates that the transmission and storage segment emits 16.8 percent of the source category's total GHG emissions.[257] It would be arbitrary and capricious for EPA to undermine its 2016 significant contribution finding by removing from that source category facilities that emit only a minority of the pollutants, because the bulk of the emissions come from the segments of the category that EPA proposes to retain.

EPA also seeks comment on whether its well-documented 2016 significance finding was "appropriate given that nowhere in the course of developing and promulgating that rule did the EPA set forth the standard by which the 'significance' of the contribution of the methane emissions from the source category (as revised) was to be assessed."[258] There is no evidence that Congress intended EPA to establish such a standard before making a determination. Instead, where Congress wanted EPA to establish a process to regulate sources under section 111, it gave specific instructions to do so. For instance, in contrast with the lack of direction in 111(b)(1)(A), in section 111(d) Congress explicitly directed EPA to issue regulations governing how the agency would develop emission guidelines for existing sources and how it would evaluate and act on state plans for those sources. Further, it has not been EPA's practice for any previous 111(b) rulemakings to first develop an independent set of standards to interpret Congress's direction. All of EPA's dozens of previous 111(b) rulemakings would have been in error if EPA were required to first establish criteria for finding that a source significantly contributed to air pollution. EPA correctly made the significant contribution finding in 2016 even though it did not first develop and specify non-statutory criteria for determining whether methane emissions from the source category were significant.

Finally, even if EPA were to adopt the novel legal positions on which it seeks comment, it may not ignore the factual bases for its 2016 endangerment and significant contribution findings and cannot undo those findings merely by reversing its previous policies and interpretation of its authority. Those new legal positions, "in and of themselves," as EPA put

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[256] 84 Fed. Reg. at 50,267.
[257] *Id.* at 50,271 tbl.7.
[258] 84 Fed. Reg. at 50,267.

it,[259] would not authorize the agency to repeal the 2016 Standard. Although EPA seems to be searching for a way to avoid regulating GHG emissions from this source category on a narrow legalistic ground, it must address the extensive factual record as well before it can repeal existing law. *Fox Television*, 556 U.S. at 516.

V. THE CONSIDERATIONS EPA CURRENTLY AND HISTORICALLY USES TO DETERMINE WHEN A SOURCE'S POLLUTANTS, INCLUDING GHGS, CONTRIBUTE SIGNIFICANTLY TO AIR POLLUTION REMAIN APPROPRIATE.

Without providing any hint as to how it may use them or any context to aid the public's understanding, EPA asks for comment on what criteria are appropriate for it to consider in making a significant contribution finding, both as a general matter, with particular reference to GHG emissions, and with reference to methane emissions from this source category most particularly. Importantly, EPA states that it "does not intend for these comments to inform the finalization of this rule, but rather to inform the EPA's actions in future rules."[260] Prior to finalizing those future, unspecified, hypothetical rules, EPA must provide the undersigned States and Cities, and the public in general, with an opportunity to comment on its specific application of new legal interpretations. EPA cannot attempt to change its interpretation of how section 111(b) applies to particular sources or pollutants without providing the public with notice and an opportunity to comment. EPA's current vague and wholly abstract brainstorming exercise does not meet those standards.[261]

A. EPA Has No Basis For Misinterpreting "Contributes Significantly" to Include a Cost-Effectiveness Prerequisite that Congress Never Mentioned

EPA suggests that, if adequately controlling emissions that endanger public health and welfare seems too expensive to EPA, Congress might not have considered those emissions to be "significant" under section 111(b)(1)(A).[262] EPA has provided no reason to believe that Congress intended EPA to consider the cost of pollution control in making the threshold decision as to whether an air pollutant significantly contributes to the air pollution described in section 111(b)(1)(A). Indeed, doing so would be illogical given the structure of section 111(b)(1)(A), which describes how EPA is to determine which sources to list based on the harm reasonably anticipated to be caused by their pollutants. The examples EPA cites of other parts of the statute that govern wholly different regulatory programs are not relevant to understanding what Congress intended in section 111(b)(1)(A). In addition to the absence of any evidence that Congress intended "contributes significantly" to include a cost component, Congress's specific inclusion of cost considerations in the section 111(a)(1) definition of "standard of performance"

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[259] *See* 84 Fed. Reg. at 50,261-62
[260] 84 Fed. Reg. at 50,267.
[261] *See* 42 U.S.C. 7607(d)(3); *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d at 549; *Shell Oil Co. v. EPA*, 950 F.2d at 760.
[262] 84 Fed. Reg. at 50,268-69.

disproves EPA's suggestion. 42 U.S.C. 7411(a)(1) (requiring EPA to "tak[e] into account the cost of achieving such reduction" when determining the best system of emission reduction); *cf. Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 465-471 (2001) (holding that EPA cannot consider implementation costs when it sets the level of the NAAQS, as decisions about the costs or impacts of NAAQS implementation and how to manage them are made by states in the state implementation plan process).

Similarly, EPA has already rejected the idea that cost-effectiveness is a component of a section 111(b)(1)(A) endangerment finding, based on the considerations described above. In the 2016 Standard, EPA explained:

> Nor does the EPA consider the cost of potential standards of performance in making this finding. Like the endangerment finding under section 202(a) at issue in *State of Massachusetts v. EPA*, 549 U.S. 497 (2007), the pertinent issue is a scientific inquiry as to whether an endangerment to public health or welfare from the relevant air pollution may reasonably be anticipated. Where, as here, the scientific inquiry conducted by the EPA indicates that these statutory criteria are met, the Administrator does not have discretion to decline to make a positive endangerment finding to serve other policy grounds. *Id*. at 532–35.[263]

It would be arbitrary and capricious for EPA to now change its legal position that section 111(b)(1)(A) somehow contains authority to EPA to insert some sort of cost-effectiveness prerequisite into the significant contribution determination. *Fox Television*, 556 U.S. at 516.

B. EPA Should Continue Its Practice of Considering Emissions From a Source Category Overall, Including Both Existing and New Sources

EPA concedes that its historical practice has been to "evaluate[] the emissions from the source category, which includes existing sources, in making the SCF determination, and the D.C. Circuit has upheld that industry-wide approach."[264] It now asks for input on the abstract concept of whether it should abandon its decades-old, court-approved interpretation of section 111 in favor of some other idea someone may supply it with during the comment period.

EPA's current position that significance under section 111(b)(1)(A)'s listing criteria is determined by looking at the source category as a whole, not just expected future sources, is the only interpretation that accords with the Act. Considering the source category as a whole under section 111(b)(1)(A) is the only rational approach under the Clean Air Act because a listing must occur before existing sources can be regulated at all under section 111(d). If, contrary to EPA's

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[263] 81 Fed. Reg. at 35,843 n.73 (citing *Whitman*, 531 U.S. 457 (2001), and describing cost analysis required for a section 111(b) standard of performance).
[264] 84 Fed. Reg. at 50,269 n.85 (citing to *Nat'l Lime Ass'n v. EPA*, 627 F.2d 416, 433 n.48 (D.C. Cir. 1980), and *Nat'l Asphalt Pavement Ass'n v. Train*, 539 F.2d 775, 779–82 (D.C. Cir. 1976)).

suggestion, the agency would only make a listing decision on the basis of whether pollution from new sources in that category were expected to endanger public health or welfare or cause or significantly contribute, then EPA might deprive itself (and states) of the ability to regulate existing sources under section 111(d), regardless of how much of a danger pollution from those existing sources posed. There is no reason to believe that Congress would have structured section 111 to achieve this absurd result. And as described above in this section II, nothing about this source category has materially changed since EPA issued the Current Standard. EPA would have no reasonable basis for reversing this legal position. *Fox Television*, 556 U.S. at 516.

C. EPA Lacks a Reasonable Basis to Change Decades of Practice Under Section 111 and Adopt a Numerical Threshold for the Meaning of "Contribute Significantly"

There is no evidence that Congress gave EPA the authority in section 111(b)(1)(A) to create a non-statutory numerical threshold for determining which harmful emissions "significantly contribute" to air pollution. EPA has listed dozens of source categories under section 111(b) over several decades without the need to resort to a general or pollutant-specific numerical threshold, and EPA has not provided the reasoned explanation required for it to change course now. *Fox Television*, 556 U.S. at 516.

EPA also already explained in 2016 the fallacy of analyzing GHG emissions from a source category and concluding that they are too small for regulation under the Clean Air Act simply because there are many other sources also emitting GHGs:

> Consideration of the global context is important. GHG emissions from United States oil and natural gas production and natural gas processing and transmission will become globally well-mixed in the atmosphere, and thus will have an effect on the United States regional climate, as well as the global climate as a whole for years and indeed many decades to come. As was the case in 2009, no single GHG source category dominates on the global scale. While the oil and natural gas source category, like many (if not all) individual GHG source categories, could appear small in comparison to total emissions, in fact, it is a very important contributor in terms of both absolute emissions, and in comparison to other source categories globally or within the United States.[265]

There is also no indication that Congress intended EPA to develop numerical thresholds to constrain its discretion under section 111(b)(1)(A). By the time of the 1990 Clean Air Act Amendments, EPA had issued dozens of NSPS without articulating any sort of numerical threshold for regulation under section 111(b). If Congress had intended EPA to use a different

[265] 81 Fed. Reg. at 35,840.

framework for making the "significantly contributes" determination under section 111(b)(1)(A), it would not have remained totally silent on this issue in the 1990 Amendments.

Further, the States and Cities are concerned that if EPA tries to exceed its statutory authority and applies a strict numerical threshold, abandoning its own discretion to take other factors into consideration, EPA would be able to prevent regulation of certain sources or pollutants under section 111(b) merely by narrowly defining the source category in question, or by dividing an industry into multiple small segments, in order to ensure that the now-smaller emissions were below whatever threshold EPA determines would trigger regulation. Instead, EPA should retain its discretion to interpret "significantly contributes" according to rational regulatory policy, sound science, and Congressional intent, without using a numerical threshold to artificially constrain the powers Congress gave to it in section 111(b).

VI. CONCLUSION

For these reasons, the States and Cities strongly oppose EPA's Proposed Rule and respectfully request that EPA withdraw the Proposed Rule in its entirety.

Sincerely,

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Enclosures[266]

[266] The States and Cities have submitted via overnight mail two USB flash drives containing Attachments 1 – 15.