



**pennsylvania**

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Office of Chief Counsel

**CERTIFIED MAIL NO: 7003 3110 0004 0492 6046**

June 29, 2017

Scott Pruitt  
Administrator  
Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

**RE: Clean Air Act Notice of Intent to Sue for Failure to Establish  
Guidelines for Standards of Performance for Methane Emissions  
from Existing Oil and Gas Operations under Section 111(d) of the Clean Air Act**

Dear Administrator Pruitt:

The Pennsylvania Department of Environmental Protection, (“PADEP”) respectfully requests that the Environmental Protection Agency (“EPA”) remedy its failure under the Clean Air Act (“CAA”), 42 U.S.C. §§ 7401-7671q, to establish guidelines for limiting methane emissions from existing sources in the oil and gas sector. EPA has determined that emissions of this potent greenhouse gas endanger public health and welfare, and that sources in the oil and gas sector are the largest industrial emitters of methane in the United States.

In June 2016, pursuant to its authority under section 111(b) of the CAA, 42 U.S.C. § 7411(b), EPA promulgated standards to reduce methane emissions from new, reconstructed, and modified sources in the oil and natural gas sector. *See* Oil and Natural Gas Sector Emission Standards for New, Reconstructed and Modified Sources, 81 Fed. Reg. 35,824 (June 3, 2016) (“New Source Rule”). EPA’s regulation of methane from new sources under Section 111(b) of the CAA, triggered its mandatory obligation under section 111(d), 42 U.S.C. § 7411(d), to issue guidelines for limiting methane emissions from existing sources in this category. *See also* 40 C.F.R. § 60.22(a).

It has now been over one year since EPA promulgated the New Source Rule and yet EPA has failed to establish existing source guidelines. EPA’s ongoing failure to address existing source methane emissions from the oil and gas sector, which accounts for a significant share of methane emissions from oil and gas operations (an estimated 90% by 2018), violates the CAA and is injurious to public health and the environment. Therefore, unless EPA promptly remedies this failure, PADEP intends to file suit at the expiration of the required notice period.

## I. Background

Climate disruption from rising greenhouse gas concentrations is increasingly taking a toll on public health and the environment. Methane is a very potent greenhouse gas and warms the climate about 34 times more than carbon dioxide over a 100-year period, according to the Intergovernmental Panel on Climate Change, and on a 20-year timeframe, it has about 86 times the global warming potential of carbon dioxide.<sup>1</sup> EPA determined in its 2009 Endangerment Finding that methane is one of the six greenhouse gases that endanger public health and welfare. *See Endangerment and Cause of Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 Fed. Reg. 66,496 (Dec. 15, 2009). Major scientific assessments since the 2009 Endangerment Finding have confirmed and strengthened the conclusion that greenhouse gases, including methane, endanger public health and welfare. *See* 81 Fed. Reg. at 35,834.

The Pennsylvania Climate Change Act, Act 70 of 2008, 71 P. S. §§ 1361.1—1361.8, directed PADEP to conduct a study of the potential impacts of global climate change on Pennsylvania over the next century. The analyses of initial study in 2009 and two subsequent updates in 2013 and 2015<sup>2</sup> are consistent with the conclusions of EPA's 2009 Endangerment Finding. Based on these PADEP sponsored studies it is projected that by the middle of the 21st century, Pennsylvania will be about 3 °C (5.4°F) warmer than it was at the end of the 20th century. Among other things, climate change in Pennsylvania will worsen air quality, compromise water quality, and affect the distribution and prevalence of vector-borne diseases such as Lyme Disease and West Nile Virus.

Oil and gas systems are the largest source of methane emissions in the U.S. and the second largest industrial source of U.S. greenhouse gas emissions behind only electric power plants. *See* 81 Fed. Reg. at 35,838. For example, in the U.S., methane emissions from this sector make almost one-fifth of the contribution to climate change that carbon dioxide emissions do from coal-fired power plants. Additionally, emission inventory summary results in Pennsylvania show that the largest key sources of anthropogenic methane emissions include natural gas and oil systems (30.5%), coal mining (30.3%), landfills (21.1%), enteric fermentation from domestic livestock (9.9%), wastewater (3.9%), and manure management (2.3%). (Attached). Of all these major categories, natural gas and oil systems is the only category that has shown significant growth, increasing threefold from the 1990s. The other major categories are either flat or slightly down from the 1990s. Thus, EPA must fully comply with its legal obligations under the CAA to regulate emissions that endanger public health and welfare by controlling this significant source of greenhouse gas emissions.

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<sup>1</sup> Available at <http://www.ipcc.ch/report/ar5/>

<sup>2</sup> Available at <http://www.dep.pa.gov/Business/Air/BAQ/AdvisoryGroups/CCAC/Pages/default.aspx>

Section 111(b)(1)(B) of the CAA requires EPA to establish standards of performance governing the emission of air pollutants from new sources (“NSPS”) in a source category and to review, and if appropriate, revise, those standards at least every 8 years. *See* 42 U.S.C. § 7411(b)(1)(B). Section 111(d) of the CAA and EPA’s regulations also require EPA to issue emission guidelines covering any air pollutant from any existing oil and gas operations for which NSPS have been issued. *See id.* § 7411(d). 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.” 40 C.F.R. § 60.22(a).

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 in 1979. *See Priority List and Additions to the List of Categories of Stationary Sources*, 44 Fed. Reg. 49,222 (Aug. 21, 1979). EPA proposed revisions to the oil and gas NSPS in August 2011, 76 Fed. Reg. 52,738 (Aug. 23, 2011), and signed a final rule to complete the mandated review for oil and gas operations on April 17, 2012. 77 Fed. Reg. 49,490 (Aug. 16, 2012) (“2012 Rule”). However, despite previously determining in 2009 that methane and other greenhouse gases endanger public health and welfare, EPA did not establish performance standards or emission guidelines for methane emissions from this industrial sector in the 2012 Rule.

In June 2013, then-President Obama issued a Climate Action Plan that, among other things, committed his administration to developing a comprehensive, interagency strategy to reduce methane emissions. That strategy, released in March 2014, committed EPA to a number of activities, including assessing significant sources of methane and other emissions from the oil and 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.

In September 2015, under section 111(b), EPA proposed regulations to require new and modified equipment to meet standards to limit their methane emissions. 80 Fed. Reg. 56,593 (Sept. 18, 2015). In June 2016, EPA published notice of the New Source Rule, promulgating final performance standards for methane emissions from new and modified oil and natural gas sources. 81 Fed. Reg. 35,824.

On the state level, on January 19, 2016, Governor Tom Wolf introduced a methane reduction strategy for Pennsylvania. The four-point plan included the following strategies:

- To reduce leaks at new unconventional natural gas well pads, PADEP will develop a new general permit for oil and gas exploration, development, and production facilities, requiring Best Available Technology for equipment and processes, better recordkeeping, and quarterly monitoring inspections.
- To reduce leaks at new compressor stations and processing facilities, PADEP will revise its current general permit, updating best available technology requirements and applying more stringent leak detection and repair (“LDAR”) and other requirements to minimize leaks.

- To reduce leaks at existing oil and natural gas facilities, DEP will develop a regulation for existing sources for consideration by the Environmental Quality Board.
- To reduce emissions along production, gathering, transmission and distribution lines, DEP will establish best management practices, including LDAR programs.

While Pennsylvania is moving forward with its own state initiative, EPA has not yet fulfilled its mandatory obligation under section 111(d) of the CAA to issue guidelines for the control of methane emissions from existing oil and gas sources. EPA action is required under the CAA to ensure uniform federal guidelines, especially in states with no backstop programs. Consequently, unless you promptly correct this failure, PADEP intends to file suit in federal district court against you as EPA administrator and EPA for failure to timely issue such emissions guidelines. Jurisdiction to adjudicate and enforce the Administrator's failure to carry out non-discretionary duties lies with the district court under section 304 of the Act. *See Environmental Defense Fund v. Thomas*, 870 F.2d 892, 897 (2d Cir. 1989); *Portland Cement Ass'n v. EPA*, 665 F.3d 177, 194 (D.C. Cir. 2011). This letter provides notice as required under section 304 of the CAA, 42 U.S.C. § 7604, and 40 C.F.R. part 54.

Unless EPA takes the required actions by the end of the applicable notice period, PADEP intends to bring a suit for EPA's failure to perform the non-discretionary duty outlined in 42 U.S.C. § 7411(d) and 40 C.F.R. § 60.22(a), and for the agency's unreasonable delay in the performance of this duty. The suit will seek injunctive and declaratory relief, the costs of litigation, and may seek other relief.

## **II. EPA Failed to Perform Its Non-Discretionary Duty to Establish Emissions Guidelines.**

Section 111(d)(1)(A) of the CAA requires EPA to address methane emissions from existing sources, once EPA establishes standards for new and modified facilities in such source category. 42 U.S.C. § 7411(d)(1)(A). The CAA requires EPA to establish procedures under which each state submits to the agency a plan to adopt, implement, and enforce standards of performance for existing sources for certain pollutants. *Id.* § 7411(d). The existing source requirements apply to those pollutants, such as methane, that have not been identified as criteria pollutants or regulated as hazardous air pollutants, but that are regulated under the new source performance standards for a category of sources. *Id.* § 7411(d)(1). EPA's issuance of standards of performance for methane emissions from new oil and gas sources triggered the agency's duty to propose guidelines for states to develop plans to limit methane emissions from existing sources under section 111(d). *Id.* § 7411(d); 40 C.F.R. § 60.21(a).

The need for EPA to proceed promptly with the regulation of existing sources is especially important because the most significant share of emissions from this sector comes from existing equipment. According to a recent analysis, sources in existence prior to 2012 are projected to be responsible for up to 90% of the methane emissions in the oil and gas sector in 2018. *See* ICF Int'l, *Economic Analysis of Methane Emission Reduction Opportunities in the*

U.S. Onshore Oil and Natural Gas Industries 1 (2014).<sup>3</sup> This study further found that industry could cut emissions 40% below the projected 2018 levels at an average annual cost of less than one cent per thousand cubic feet of natural gas. Taking into account the total economic value of the natural gas that would be recovered through the use of additional emission controls, this 40% reduction would yield savings of over \$100 million dollars per year for the U.S. economy and consumers. To address this substantial share of heat-trapping methane emissions, EPA must take action to address methane emissions from existing sources in the oil and gas sector.

In the absence of federal action, PADEP developed enforceable legal requirements through a conditional permit exemption known as “Exemption 38” to reduce methane emissions from unconventional wells, wellheads, and associated equipment.<sup>4</sup> Under this conditional exemption, an owner/operator is required to establish an LDAR program that includes either the annual use of an optical gas imaging camera such as a FLIR camera or a gas leak detector capable of reading methane concentrations in air of 0% to 5% with an accuracy of +/- 0.2% or other leak detection monitoring devices approved by PADEP. This conditional exemption has proved so successful in reducing methane emissions that PADEP is proposing to extend this LDAR requirement to other operations in the oil and gas industry in Pennsylvania through general permits.<sup>5</sup>

In recognition of its obligation under the CAA to issue existing source guidelines, on the same day that it issued the New Source Rule, EPA published 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).” 81 Fed. Reg. 35,763, 35,764 (June 3, 2016). While EPA issued the Final Methane ICR on November 10, 2016, it was subsequently withdrawn without any notice or opportunity for comment. 82 Fed. Reg. 12,817 (Mar. 7, 2017).

This withdrawal though does not relieve EPA of its mandatory statutory obligation to issue guidelines covering methane emissions from existing facilities in the oil and gas sector. Even without following through with the ICR, EPA has substantial information regarding the sources of emissions and pollution control technologies and practices for reducing methane emissions at existing oil and gas operations. For instance, through the voluntary Natural Gas Star Program, EPA has worked with oil and gas companies for decades to develop expertise in more than 100 cost-effective technologies and practices to reduce methane emissions.<sup>6</sup>

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<sup>3</sup> Available at [https://www.edf.org/sites/default/files/methane\\_cost\\_curve\\_report.pdf](https://www.edf.org/sites/default/files/methane_cost_curve_report.pdf).

<sup>4</sup> Available at <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-96215/275-2101-003.pdf>

<sup>5</sup> Available at <http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-13330>

<sup>6</sup> See <https://www.epa.gov/natural-gas-star-program/recommended-technologies-reduce-methane-emissions>.

In sum, EPA's continuing failure, more than a year after promulgating the New Source Rule, under section 111(b), to publish guidelines covering methane emissions from existing facilities in the oil and gas sector under section 111(d) is contrary to the Clean Air Act and the regulations implementing that section of the Act. *See* 42 U.S.C. § 7411(d); 40 C.F.R. § 60.22(a). PADEP therefore is providing notice that we intend to sue you as EPA administrator and EPA for the agency's failure to take this non-discretionary action.

### **III. EPA Has Unreasonably Delayed Establishing Emissions Guidelines.**

As set forth above, section 111(d) and 40 C.F.R. § 60.22(a) impose a non-discretionary duty to establish emissions guidelines covering existing sources. In addition, EPA has unreasonably delayed taking action on methane emissions from existing sources in the oil and gas sector.

EPA has long known the significance of the oil and gas sector's contribution to methane emissions and the availability and cost-effectiveness of measures for reducing those emissions. Similarly, EPA has had ample data on measures for controlling methane emissions through its Natural Gas STAR Program. EPA has been assessing the significant emissions of methane from oil and gas operations and evaluating actions to address those emissions since at least 2011. *See* Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews; Proposed Rule, 76 Fed. Reg. 52,738, 52,756 (Aug. 23, 2011).

Notwithstanding the detailed information EPA already has in its possession, the agency has unreasonably delayed establishing emissions guidelines for controlling methane emissions from existing oil and gas sector sources. EPA's unreasonable delay in issuing these guidelines in turn delays both the date by which states must submit plans for the control of methane from existing oil and gas operations, 40 C.F.R. § 60.23(a), and the date by which existing sources must comply with approved pollution control standards, *see id.* § 60.24(c). Therefore, PADEP is providing a 180-day notice that we intend to sue you as EPA administrator and EPA for EPA's unreasonably delaying final agency action to issue emissions guidelines for methane emissions from existing oil and gas operations.

### **IV. Conclusion**

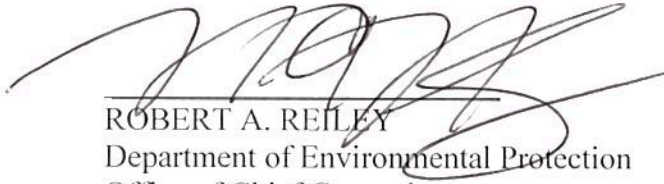
EPA's issuance of the New Source Rule under section 111(b) recognized that methane emissions endanger public health and welfare and that oil and gas operations account for a large share of methane emissions, and points to the urgent need to reduce these emissions from existing sources. But EPA's failure to make progress in issuing such guidelines under section 111(d) demonstrates that litigation may be needed to prompt the required agency action. Accordingly, PADEP gives notice of our intent to sue for EPA's failure to complete the emissions guidelines for existing sources required by section 111(d) of the CAA and EPA's

regulations at 40 C.F.R. § 60.22(a) and for the agency's unreasonable delay in the completion of that action.

We are willing to explore any effective means of resolving this matter without the need for litigation. However, if we do not hear from you within the applicable time periods provided in section 304 of the Act, the agency intends to file suit in United States District Court.

Sincerely,

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Summary of CH4 Emission Inventory for Pennsylvania

Summary of GHG Emissions by Gas in Pennsylvania (MMTCO2E)		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Emissions (MMTCO2E)		30.73	31.59	31.04	30.88	31.52	30.23	28.44	29.88	30.41	30.38	34.27	32.74	33.09	35.00
CH4		30.73	31.59	31.04	30.88	31.52	30.23	28.44	29.88	30.41	30.38	34.27	32.74	33.09	35.00
Stationary Combustion		0.39	0.37	0.36	0.39	0.38	0.39	0.35	0.37	0.38	0.39	0.38	0.38	0.36	0.43
Mobile Combustion		0.22	0.21	0.19	0.17	0.16	0.15	0.14	0.12	0.11	0.10	0.10	0.09	0.09	0.09
Coal Mining		12.72	11.73	10.81	10.70	10.50	9.40	8.19	9.92	10.54	11.53	11.78	9.11	9.10	10.63
Natural Gas and Oil Systems		6.85	8.77	9.28	8.85	9.56	9.74	10.03	10.30	10.61	10.76	9.48	10.41	10.54	10.69
Enteric Fermentation		3.52	3.45	3.44	3.27	3.31	3.37	3.34	3.48	3.49	3.46	3.49	3.51	3.52	3.45
Manure Management		0.73	0.77	0.84	0.72	0.77	0.81	0.75	0.81	0.79	0.80	0.80	0.81	0.81	0.79
Rice Cultivation															
Burning of Agricultural Crop Waste		0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Forest Fires				0.03	0.01	0.00	0.02	0.10	0.02	0.11	0.09	0.08	0.07	0.09	0.13
Waste		5.01	4.96	4.77	5.44	5.49	5.02	4.20	3.51	3.02	1.87	6.78	7.00	7.21	7.40
Wastewater		1.00	1.32	1.32	1.32	1.32	1.33	1.34	1.35	1.36	1.35	1.36	1.36	1.37	1.37