



October 21, 2019

Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

RE: EPA Docket No. EPA-HQ-OAR-2017-0757 – Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Source Review

As the world's largest scientific society, the American Chemical Society (ACS) is concerned by the potential climate, economic, and public health impacts of the proposed changes to emissions standards. The EPA predicts that from 2019 to 2025, the new standards would increase methane emissions by 350,000 – 370,000 short tons, volatile organic compounds (VOCs) by 9,700 – 10,000 tons, and particulate emissions by 290 – 300 tons.<sup>1</sup> Each of these increases could lead to substantial negative consequences for the public.

Methane, for example, is a potent greenhouse gas (GHG) and even modest increases in its emission will accelerate and compound the effects and risks of climate change including increases in extreme weather events, sea level rise, and degradation of ecosystems and natural resources. The Fourth National Climate Assessment (NCA) recently highlighted these impacts in the U.S. and called for action to mitigate climate-related risks but the proposed emissions standards would exacerbate climate change and its damaging impacts.<sup>2</sup>

To support sustainable development, the U.S. government should adopt policies that both consider the full life cycle costs of energy sources and minimize their environmental impacts. Requiring capture of methane that would otherwise be lost provides valuable feedstock for industrial purposes and, in the case of operations on federal land, increased royalties for taxpayers. The EPA has repeatedly failed to adequately incorporate comprehensive life cycle analysis in its proposed methane regulations.<sup>3</sup>

The EPA anticipates compliance cost savings as a results of reduced regulation of emissions but also acknowledges that the subsequent increase in emissions will likely degrade air quality, causing deleterious health and environmental effects that have not been quantified.<sup>1</sup> The EPA also acknowledges the link between VOCs and particulates to negative health outcomes.<sup>4</sup> Health effects of

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<sup>1</sup> *Regulatory Impact Analysis for the Proposed Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review*, U.S. Environmental Protection Agency: Washington, DC, 2019.

<sup>2</sup> *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment*; Reidmiller, D.R., Avery, C.W., Easterling, D.R., Kunkel, K.E., Lewis, K.L.M., Maycock, T.K, Stewart, B.C., Eds.; U.S. Global Change Research Program: Washington, DC, 2018; Vol II.

<sup>3</sup> ACS comments on EPA's proposed Methane Rule, <https://www.acs.org/content/acs/en/policy/washington-science.html> December 2018.

<sup>4</sup> Health and Environmental Effects of Particulate Matter (PM) <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm> (accessed Oct 3, 2019) and Volatile Organic Compounds' Impact on Indoor Air Quality <https://www.epa.gov/indoor-air-quality-iaq/volatile-organic-compounds-impact-indoor-air-quality> (accessed Oct 3, 2019)

VOCs include: irritation of the eyes, nose and throat; headaches; loss of coordination and nausea; damage to the liver, kidneys and central nervous system. Some VOCs can cause cancer in animals, while others are suspected or known to cause cancer in humans. Particulate matter, PM<sub>2.5</sub>, emissions are linked to premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing. ACS believes that these health and safety costs are significant and should be accurately assessed so that they can be incorporated into a holistic analysis including the aforementioned economic and environmental concerns.

ACS believes the U.S. government must take meaningful steps to reduce GHG emissions to limit the high costs of climate change and objects to regulatory changes that could do the opposite. The current standards should be retained, and future revisions should build on them to further curb emissions and protect the environment, climate and public health.

Respectfully Submitted,  
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