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The Honorable Michael S. Regan, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

ATTN: Docket ID EPA-HQ-OAR-2021-0317

Comments on Proposed "Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review"

Dear Administrator Regan:

Taxpayers for Common Sense (TCS) respectfully submits the following comments on the Environmental Protection Agency's (EPA) proposed "Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review," Supplemental notice of proposed rulemaking. (87 FR 74702, December 6, 2022).

I. Introduction

Methane is a well-known contributor to the process of climate change, and TCS supports strong rules to limit the release of methane, including from identified sources such as oil and gas production. TCS opposes the waste of valuable resources and methane leaks, vents, and flares are a well-documented source of a lost resource. This waste threatens our energy security, costs us in lost revenue, undermines fiscal responsibility, and accelerates the impacts of climate change.

Across the federal budget, TCS advocates for more effective spending and policy that limits the exposure of taxpayers to future liabilities such as those presented by the well-documented effects of climate change on severe weather events. Through regular annual congressional appropriations and emergency supplemental appropriations, taxpayers spend more than $100 billion every year on disaster assistance directly related to climate change. It is incumbent on federal agencies to limit the liability taxpayers face because of climate change through rulemakings and other actions to curtail sources of GHG emissions, which accelerate the process of climate change and its associated costs.

The mission of Taxpayers for Common Sense is to fight for a federal government that operates within its means and works for people, not just special interests. We focus our efforts on eliminating programs and policies that are both wasteful and harmful, subsidies to polluting industries, weapons systems that do not work, and perverse incentives that increase taxpayer and environmental risks. Since our founding in 1995, TCS has been the leading voice fighting taxpayer century old subsidies for oil and gas and other fossil fuel production. As a multi-issue budget watchdog, we bring a perspective informed by both breadth and depth on issues ranging from agriculture, natural resource management, infrastructure, and national security. Our expertise on subsidized agriculture insurance programs, energy subsidies, water resources, flood and wildfire disaster response, and military operations spending gives us a unique view of the ways in which misplaced priorities increase climate risks and impacts. These risks in turn create long-term harm for communities and increase liabilities for taxpayers.

II. Methane Waste Costs Taxpayers

Methane is the largest component of unprocessed natural gas and a greenhouse gas that is 80 times more potent than CO2 for the first 20 years it is in the atmosphere. Natural gas and petroleum systems account for 32% of all U.S. emissions in 2020, according to the EPA U.S. Greenhouse Gas Inventory data.[1] The oil and gas industry is the largest industrial emitter of methane in the U.S.[2] The Intergovernmental Panel on Climate Change (IPCC) has reported that strong, rapid, and sustained methane reductions are critical to reducing near-term disruption of the climate system and are a vital complement to reductions in other GHGs that are needed to limit the long-term extent of climate change and its destructive impacts.[3]

These destructive impacts include enormous immediate costs and growing future liabilities for taxpayers as federal emergency spending is required to recover from extreme weather events. Climate change is intensifying extreme precipitation events, higher peak winds of the most intense tropical cyclones (hurricanes), and elevated sea levels that have increased coastal flooding.[4] Federal wildfire suppression costs were about a billion dollars annually between 2000 and 2016, as wildfires have burned more than 3.7 million acres in 14 of the 17 years.[5] Federal crop insurance costs and supplemental *ad hoc* disaster aid will continue to increase in the future as the increased frequency and duration of drought will reduce agricultural productivity, accelerate depletion of water supplies for irrigation, and expand the distribution and incidence of pests and diseases for crops and livestock.

Climate change can increase risks to national security, not only through direct impacts on military infrastructure, but also by affecting factors such as food and water availability that can exacerbate conflict outside U.S. borders.[6] On a cost-adjusted basis, billion-dollar disasters in the U.S. have increased from 3.1 per year, costing the federal government an average of $20.5 billion in the 1980s, to 17.8 per year at an average annual cost of $119.1 billion from 2018-2022.[7]

Methane waste also costs taxpayers and consumers by not being captured and sold. Venting and flaring practices waste natural gas that could have been brought to market. For example, oil and gas companies rushing to produce oil choose to flare the comingled natural gas instead of setting up proper infrastructure to capture it. Using the Oil and Gas Operations Report (ORGOR-B) data which is self-reported by oil and gas companies operating on federal lands, TCS found that 300 bcf of natural gas was wasted on federal lands alone from FY2012 to FY2021. This lost gas could power 3.2 million household's electricity use for a year[8] and has a market value of $949 million. For lost gas that is released from federal lands, taxpayers were also deprived of potential royalty revenue due to the lack of clarification on when royalties should be charged on that lost gas. Over the past decade, taxpayers have lost at least $76 million in potential revenue on wasted gas. Taxpayers should have received $119 million given the royalty rate of 12.5%. Instead, the Office of Natural Resources Revenue (ONRR) reported collecting just

[1] EPA, U.S. Greenhouse Gas Inventory Data Explorer, https://cfpub.epa.gov/ghgdata/inventoryexplorer/#energy/naturalgasandpetroleumsystems/allgas/gas/all
[2] EPA, 87 FR 74702 p. 1276 (proposed December 6, 2022) https://www.federalregister.gov/d/2022-24675/p-1276
[3] EPA, 87 FR 74702 p. 267 (proposed December 6, 2022) https://www.federalregister.gov/d/2021-24202/p-267
[4] EPA, 87 FR 74702 p. 365 (proposed December 6, 2022) https://www.federalregister.gov/d/2021-24202/p-365
[5] National Interagency Fire Center, Suppression Costs, https://www.nifc.gov/fire-information/statistics/suppression-costs
[6] EPA, 87 FR 74702 p. 368 (proposed December 6, 2022) https://www.federalregister.gov/d/2021-24202/p-368
[7] NOAA National Centers for Environmental Information (NCEI), U.S. Billion-Dollar Weather and Climate Disasters, 2022. https://www.ncei.noaa.gov/access/billions/
[8] EPA, Greenhouse Gas Equivalencies Calculator, https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

$43 million in royalties on gas vented or flared over the decade, approximately one-third of the potential royalties.[9] A new Synapse study commissioned by Environmental Defense Fund and TCS calculated that approximately 163 Bcf of natural gas was lost on federal and tribal lands in 2019, which represented a combined loss of $64 million in federal, tribal and state royalty revenues.[10] This wasted gas was worth roughly $509 million and could have met the annual energy needs of 2.2 million households.

III. Comments on the Proposed Rule

TCS supports the EPA's supplemental proposal to address methane emissions more comprehensively from both new and existing sources. TCS supports the following provisions of the rule: inclusion of both new and existing facilities; monitoring of all wells without exemption until well closure; retaining strong zero-bleed requirements for pneumatic devices; retaining the provision allowing operators to use advanced leak detection technologies; and allowing third-party detection of super-emitters.

To protect taxpayers, consumers, and local communities, and decrease climate impacts exacerbated by methane waste, TCS urges the EPA to strengthen the rule by:

1. ensuring Emissions Guidelines are rigorously applied and maintained in the State Implementation Plans;
2. taking additional steps to end routine flaring;
3. expanding accessibility of data and public participation in the Super-Emitter Response Program;
4. requiring stronger well closure plans.

1. The Final Rule Should Ensure State Implementation Plans Are Not Undercut by Flexibility Provided in EPA Guidelines.

The EPA 2021 proposed rule set Emissions Guidelines (EG) to limit methane from existing oil and natural gas infrastructure for the first time. The rules will direct states to develop mitigation plans for existing sources based on EPA's emission guidelines, which apply to approximately one million producing oil and gas wells, 1,400 compression stations located along natural gas transmission lines, and 650 natural gas processing facilities.[11] The Supplemental Proposal strengthens EG under a new subpart OOOOc that would apply to existing sources by tightening standards for well sites, pneumatic controllers, pneumatic pumps, and wet seal centrifugal compressors; and creating standards for well liquids unloading operations and dry seal centrifugal compressors.

TCS supports EPA's proposal to establish emissions guidelines for existing oil and natural gas infrastructure. According to the Regulatory Impact Analysis accompanying this rule, projected emissions reductions under proposed New Source Performance Standards (NSPS) OOOOb will be 180 million metric tons of CO_2 equivalent (MMTCO2e) and projected emissions reductions under proposed OOOOc

[9] TCS, "Gas Giveaways II," Aug 30, 2022. https://www.taxpayer.net/energy-natural-resources/gas-giveaways-ii-methane-waste-on-federal-lands-is-business-as-usual/

[10] Olivia Griot et. al., "Onshore Natural Gas Operations On Federal and Tribal Lands in the United States: Analysis of Emissions and Lost Revenue," Jan. 20, 2023. ("Synapse") https://blogs.edf.org/energyexchange/files/2023/01/EMBARGOED_EDF-TCS_Public_Lands_Analysis.pdf

[11] EPA, 86 FR 63110 p. 655 (proposed November 15, 2021) https://www.federalregister.gov/d/2021-24202/p-655

for existing sources will also be 620 MMTCO2e. Therefore, any final rule must include EG for existing sources because they will drive the largest portion of emissions reduction.

However, subpart OOOOc does not directly impose requirements on existing sources, so states are required to submit plans for the EPA's approval that are at least as effective as the standards set in OOOOc. There is an obvious need for a consistent regulatory regime for tracking and limiting methane emissions across all oil and gas operations in the U.S. Although some states have promulgated rules to regulate the emission of methane from this sector, there are still many places where oil and gas operations are largely unregulated. As most of the projected emissions reductions and climate benefits from this proposed rule will come from existing sources, the success of this rulemaking will depend largely on the effectiveness of the state plans adopted in coordination with the EPA.[12]

The EPA has proposed to create presumptive standards based on "general industry parameters and assumptions," which states may use as a "model rule" in the development of state plans.[13] The EPA says it will allow states to create standards that would be equivalent to the presumptive standards, "in the aggregate."[14] It will then be up to the agency to make the complex determination if each state plan meets the new standards of performance for existing sources. TCS supports the provision that would allow states to include requirements that are more stringent than the guidelines because of, "early retirements, effects on local communities, and availability of control technologies that allow a source to achieve greater emission reductions," provided states can demonstrate their efficacy.[15] The Proposed Supplemental gives states the discretion and flexibilities to meet emissions guidelines through aggregate reduction from their sources and allows methods like trading and averaging. As the EPA moves forward with emissions guidelines for states governing existing sources, EPA must ensure that these guidelines are not undercut by efforts to provide flexibility to states to carry over less stringent provisions from any existing state programs.

2. The Final Rule Must Eliminate Routine Flaring.

TCS supports stronger rules on routine flaring. In fact, the EPA should prohibit all routine flaring but temporary flaring under limited situations such as emergencies.

Associated gas, or gas produced from oil wells, account for 87% of all U.S. onshore flaring in 2020 and 2021, according to a report by Rystad Energy.[16] Associated gas was also the main driver of overall flaring volumes through 2019, when flaring volumes peaked at around 1.3 Bcf per day. Although the EPA supplemental proposal focuses on regulating emissions, it is important to recognize that flaring of associated gas is also an egregious waste of a valuable natural resource—natural gas—that could have been brought to consumers. Using Energy Information Administration (EIA) data of annual average Henry Hub natural gas spot prices,[17] the amount of gas flared in 2019 was worth approximately $1.26 billion.

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[12] EPA, "Regulatory Impact Analysis for the Proposed Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review," Oct 2021. https://www.epa.gov/system/files/documents/2021-11/proposal-ria-oil-and-gas-nsps-eg-climate-review_0.pdf

[13] EPA, 87 FR 74702 p. 301 (proposed December 6, 2022) https://www.federalregister.gov/d/2021-24202/p-301

[14] EPA, 87 FR 74702 p. 1093 (proposed December 6, 2022) https://www.federalregister.gov/d/2022-24675/p-1093

[15] EPA, 87 FR 74702 p. 1204 (proposed December 6, 2022) https://www.federalregister.gov/d/2022-24675/p-1204

[16] Rystad Energy, "The Cost of Flaring Abatement," Jan 31, 2022. https://blogs.edf.org/energyexchange/files/2022/02/Attachment-W-Rystad-Energy-Report_-Cost-of-Flaring-Abatement.pdf

[17] EIA, Henry Hub Natural Gas Spot Price, https://www.eia.gov/dnav/ng/hist/rngwhhdw.htm

This supplemental proposal allows owners and operators four compliance options to reduce or eliminate emissions of methane and VOC from associated gas from oil wells:

(1) recover the associated gas from the separator and route the recovered gas into a gas gathering flow line or collection system to a sales line;
(2) recover the associated gas from the separator and use the recovered gas as an onsite fuel source;
(3) recover the associated gas from the separator and use the recovered gas for another useful purpose that a purchased fuel or raw material would serve;
(4) recover the associated gas from the separator and reinject the recovered gas into the well or inject the recovered gas into another well for enhanced oil recovery.

Under the supplemental proposal, associated gas can be routed to a flare or other combustion device when the owner or operator demonstrates that all four options listed above are infeasible due to technical or safety reasons, and that demonstration is approved by a certified professional engineer. TCS applauds EPA for strengthening the requirements compared to the November 2021 proposal, which only required operators already connected to sales lines to capture gas instead of flaring it. However, this broad exemption of technical infeasibility leaves the door open for abuse and may ultimately result in the continued practice of routine flaring.

All routine flaring should be banned. This does not include flaring in cases of emergency where safety is at risk, but these instances should be rare. The EPA must define as clearly and narrowly as possible when flaring will be allowed to limit inconsistency of interpretation and implementation.

3. The Final Rule Should Expand Public Participation and Improve Accessibility of Data.

The EPA notes that the top 5% of emission sources are responsible for roughly half of all methane emissions. These large-scale emissions are usually caused by accidents or similarly non-routine failures known simply as "super-emitter" events. They are defined as quantified emissions of 100 kg/hr or greater of methane, a very high threshold. The Supplemental Proposal seeks to address super-emitter events with ongoing monitoring and prescriptive practices for routine operations. Given that some of these super-emitter events are episodic, a cost-effective inspection program that is implemented in compliance with the proposed standards may miss some of these events, especially in remote areas. A Super-Emitter Response Program that allows third parties to monitor, detect, and report super-emitter events will serve as backstop when regular inspection program falls short.

Although questions arise with the introduction of third parties into the regulatory regime adopted by the EPA, there are precedents of using third parties as part of oversight of unpredictable events. The Pennsylvania Department of Environmental Protection reportedly ordered an operator in the state to commission an independent audit of all of that operator's gas storage operations anywhere in the state in response to a release similar to a super-emitter event.[18] It is not unique for government regulatory action to include third-party monitoring and verification, such as an audit. With proper qualification requirements for third-party monitoring, the EPA's rules can help operators by providing assistance in

[18] The Legal Intelligencer (law.com), "EPA's Methane 'Super-Emitter' Proposal: Getting Outside Help," Dec 29, 2022. https://www.law.com/thelegalintelligencer/2022/12/29/epas-methane-super-emitter-proposal-getting-outside-help/?slreturn=20230113165758

monitoring emissions. It can also effectively engage local communities impacted by oil and natural gas operations.

TCS supports the EPA's proposal to allow third parties to engage directly with the operators to help identify super-emitter events and notify the operator, which would be required to conduct a root cause analysis and take corrective action. We encourage the EPA to streamline the process for identifying and notifying the responsible operator to shorten the time span from detection to correction. Under the Supplemental Proposal, the EPA will make available the notices to operators that the EPA receives, as well as the reports sent to the EPA by owners and operators in response in a document repository. TCS urges the EPA to make all pertinent information under the Super Emitter Response Program, such as the size and severity of the super-emitter event and notices to operators to root analysis and corrective actions carried out by operators, publicly available and accessible on a website to provide maximum transparency and allow for better public participation and engagement of communities during these super-emitter events.

4. The Final Rule should Strengthen Well Closure Plan Requirements.

TCS supports the EPA's proposal to require ongoing fugitive emissions monitoring and reporting until the well site has been properly plugged by the owner or operator. The proposed standards would require operators to submit a well closure plan within 30 days of the cessation of production from all wells at the well site or centralized production facility that includes: (1) the steps necessary to close all wells at the well site, including plugging of all wells; (2) the financial requirements and disclosure of financial assurance to complete closure; and (3) the schedule for completing all activities in the closure plan. Owners and operators would also have to report any changes in ownership at individual well sites so that it is clear who is responsible until the site is plugged and closed.

However, the EPA must clarify what wells the requirements would apply to and who would be subject to the requirements. For example, any abandoned well with a known existing financially responsible party should be subject to these monitoring and well closure requirements and be properly plugged. Furthermore, the EPA should require financial assurance disclosures to include the bond coverage as well as plugging cost estimate per well, to help evaluate and identify any potential shortfall in cleanup liabilities. For example, the Bureau of Land Management (BLM), that oversees the federal onshore oil and gas program, accepts three types of bond coverage: individual lease bond, statewide bond, and nationwide bond. Due to the prevalent use of blanket bonds, the average value of bonds held by the BLM in 2018 was $2,122 per well, while full reclamation costs can range from $20,000 per well to $145,000 per well.[19] Due to insufficient bonding, taxpayers will be paying $46.2 million to plug orphaned wells and inactive wells at risk of becoming orphans.[20] Many states also accept blanket bonds and are facing the same cleanup liability issue. Therefore, identifying the shortfall between actual reclamation cost and bond coverage is paramount before wells become orphaned. TCS also urges the EPA to make financial assurance disclosures and reclamation costs, as well as all information required in well closure

[19] Government Accountability Office, "Oil and Gas: Bureau of Land Management Should Address Risks from Insufficient Bonds to Reclaim Wells,", Sep 18, 2019. https://www.gao.gov/products/gao-19-615

[20] Government Accountability Office, "Oil and Gas Wells: Bureau of Land Management Needs to Improve Its Data and Oversight of Its Potential Liabilities," Jun 5, 2018. https://www.gao.gov/products/gao-18-250

plans, publicly available, barring any confidentiality requirements, to increase transparency and accountability of the well plugging process.

IV. Complying with the EPA Rule can be Cost Effective

The EPA estimated that the net compliance costs (compliance costs net of value of produce recovery) of the Supplemental Proposal would cost the oil and gas industry $14 billion in 2019 dollars ($2019) using a 3 percent discount rate and $12 billion ($2019) using a 7 percent discount rate from 2023 to 2035. However, it is important to point out that not all of the estimate compliance costs will be shouldered by industry. Specifically, the Inflation Reduction Act (IRA, P.L. 117-169) created the Methane Emissions and Waste Reduction Incentive Program (42 USC 7436) and appropriated $850 million dollars available through the end of FY2028 to the EPA:

(1) for grants, rebates, contracts, loans, and other activities of the Environmental Protection Agency for the purposes of providing financial and technical assistance to owners and operators of applicable facilities to prepare and submit greenhouse gas reports under subpart W of part 98 of title 40, Code of Federal Regulations;
(2) for grants, rebates, contracts, loans, and other activities of the Environmental Protection Agency authorized under subsections (a) through (c) of section 103 for methane emissions monitoring;
(3) for grants, rebates, contracts, loans, and other activities of the Environmental Protection Agency for the purposes of providing financial and technical assistance to reduce methane and other greenhouse gas emissions from petroleum and natural gas systems, mitigate legacy air pollution from petroleum and natural gas systems, and provide funding for—
    A. improving climate resiliency of communities and petroleum and natural gas systems;
    B. improving and deploying industrial equipment and processes that reduce methane and other greenhouse gas emissions and waste;
    C. supporting innovation in reducing methane and other greenhouse gas emissions and waste from petroleum and natural gas systems;
    D. permanently shutting in and plugging wells on non-Federal land;
    E. mitigating health effects of methane and other greenhouse gas emissions, and legacy air pollution from petroleum and natural gas systems in low-income and disadvantaged communities; and
    F. supporting environmental restoration; and
(4) to cover all direct and indirect costs required to administer this section, prepare inventories, gather empirical data, and track emissions.

The IRA appropriated an additional $700 million specifically for owners and operators of conventional wells to carry out the same activities as described in paragraph (1) through (4) at marginal conventional wells. The Department of Energy has also been funding methane mitigation research. Taxpayers have also been shouldering some of the costs of operational and equipment improvement through various incentivizes to increased capture.

In addition to these taxpayer-funded incentives, the projected costs for industry represent a small fraction of their overall capital expenditures. The equivalent annual value of net compliance costs of the

Supplemental Proposal is $1.4 billion ($2019). According to Mercer Capital,[21] 28 selected exploration and production (E&P) companies, both global and independent, operating in Bakken, Appalachia, Permian, and Eagle Ford, reported $138 billion in capital expenditures in 2019 and were expected to spend $109 billion in 2022. Therefore, the annual compliance cost is roughly 1.3% of 2022 capital expenditures of the selected companies and likely a lower percentage of total annual capital expenditures of the entire U.S. upstream oil and gas sector. E&P spending is also expected to increase both internationally and in North America by at least 14% in 2023, according to the 2023 Evercore ISI E&P Spending Outlook.[22] U.S.-based supermajors like ExxonMobil and Chevron have both announced increased 2023 capital budget.[23]

Furthermore, a recent report by Rystad Energy[24] shows that various flaring abatement methods can be cost effective as well. After accounting for gas can NGL sales, pipeline gathering (connecting wells to gathering systems) and on-site use (consumption of gas on-site for fueling equipment or electricity generation) can generate a net profit of $3.1 per thousand cubic feet (mcf) and $8.6/mcf, respectively. Using gas to generate electricity in a power plant and selling power to an electricity grid, or gas-to-wire, has a net cost/profit of $0/mcf. Although the report puts gas reinjection cost at $3.4/mcf, Rystad Energy notes that the estimate only represents the scenario when gas is reinjected into a suitable reservoir and does not account for the possibility of retrieving the gas for re-sale or enhanced oil recovery (EOR), which has upside potential in terms of costs/profits.

V. Conclusion

Thank you for the opportunity to comment on the proposed rule to address methane emissions from new and existing sources in the oil and gas sector. For far too long, oil and gas operators have been allowed to vent, flare, and leak methane during their operations, wasting billions of dollars' worth of valuable resources that could have been delivered to consumers. TCS applauds EPA's effort to strengthen and broaden performance standards and emissions guidelines. However, TCS urges the EPA to strengthen the rule by ensuring that state implementation plans are consistent with and as stringent as proposed standards, taking additional steps to end routine flaring, expanding accessibility and public participation of the Super-Emitter Response Program, and strengthening its well closure plan requirements.

[21] Sebastien Elzein, "E&P Capital Expenditures Set to Rise, but Remain Below Pre-Pandemic Levels," Mercer Capital, April 22, 2022. https://mercercapital.com/energyvaluationinsights/ep-capital-expenditures-set-to-rise-but-remain-below-pre-pandemic-levels/

[22] Evercore ISI, 2023 E&P Spending Outlook.

[23] Carolyn Davis, "North American E&P Spend to Increase 14% in 2023; Maintain in Appalachia, Grow in Haynesville," Natural Gas Intel, Jan 19, 2023. https://www.naturalgasintel.com/north-american-e-maintain-in-appalachia-grow-in-haynesville/

[24] Rystad Energy, "The Cost of Flaring Abatement," Jan 31, 2022. https://blogs.edf.org/energyexchange/files/2022/02/Attachment-W-Rystad-Energy-Report_-Cost-of-Flaring-Abatement.pdf