

CURBING METHANE POLLUTION FROM THE OIL AND GAS INDUSTRY



Methane pollution poses a significant threat to public health and is a powerful driver of climate change. Until now, the oil and gas industry has been allowed to dump climate-warming methane pollution into the air without limit. It's time for the oil and gas industry to clean up its act and stop jeopardizing the health and welfare of our communities and landscapes.

Thankfully, in August, the U.S. Environmental Protection Agency (EPA) took commonsense steps forward by proposing the first-ever standards to reduce harmful methane pollution from the oil and gas industry.

Methane, the primary component of natural gas, is an invisible, odorless gas. The oil and gas sector is the largest industrial source of methane in the U.S., leaking or intentionally venting large quantities of this dangerous pollutant into our air every day. In 2013, oil and gas sources emitted over 7.3 million metric tons of methane, equivalent to carbon dioxide emissions from over 160 coal-burning power plants.¹ Recent studies suggest that the scope of the problem is likely much larger than earlier reports indicated.² Together with other dangerous pollutants that are released from oil and gas equipment, methane emissions damage air quality, threaten the health and wellbeing of the public, and contribute to climate change.

The administration must adopt strong safeguards that minimize methane pollution from the oil and gas industry for the sake of our climate and the health of our communities and families.

METHANE AND CLIMATE

Methane is a highly potent greenhouse gas—86 times as powerful as carbon dioxide during the time it remains in the atmosphere—which makes it a powerful contributor to climate change, the greatest threat our planet has ever faced.³ Methane is the second most prevalent greenhouse gas emitted in the United States from human activities, and nearly 30 percent of those emissions come from oil production and the production, processing, transmission, and distribution of natural gas.⁴ These emissions are projected to significantly increase over the next decade unless appropriate federal standards are in place.

METHANE AND HEALTH

Methane from the oil and gas industry is released into the atmosphere alongside other co-pollutants: volatile organic

compounds (VOCs), which are a key ingredient in ground-level ozone (smog), fine particulate matter (soot), and a number of hazardous air pollutants known as “air toxics,” including benzene, toluene, ethylbenzene, and xylene. Smog and soot are associated with numerous serious health effects, including asthma attacks, increased respiratory problems, permanent lung damage, and early death from respiratory and cardiovascular causes.⁵ Air toxics are known or suspected to cause cancer and other serious health problems.

Some populations are especially vulnerable to health problems due to smog, soot, and air toxics. These include young people with asthma, seniors with respiratory disorders, and environmental justice communities—those with a high percentage of people of color, low-income residents, and/or indigenous members. These groups in particular suffer a disproportionate impact from the harms posed by methane and its co-pollutants, and can no longer afford for the oil and gas industry to operate without national methane standards.

SOLUTIONS ARE AVAILABLE

The good news is, there are proven, low-cost ways of reducing this dangerous and wasteful pollution. Setting methane standards will force dirty polluters—rather than our communities—to pay for the cost of their emissions. The new standards proposed by EPA are an important first step in requiring new and modified equipment in the oil and gas industry to clean up their methane pollution. These rules will help protect communities and workers impacted by these emissions, as well as our climate.

WHAT'S IN EPA'S PROPOSED STANDARDS

EPA's proposal would require owners and operators of oil and gas equipment to find and repair leaks at well sites, compressor stations, and gas processing plants, which can be a significant source of both methane and VOC pollution. Additionally, it would require emissions of methane and VOCs to be captured from hydraulically fractured oil wells using a

proven process known as “reduced emissions completions” or “green completion.” Lastly, it would require owners and operators of new or modified natural gas equipment to control their methane and VOC emissions across the whole industry, from initial production through transmission and storage. Specifically, the standards would limit emissions from pneumatic pumps, pneumatic controllers, and most compressors across the industry.

BENEFITS TO PUBLIC HEALTH AND THE CLIMATE

EPA estimates that these standards for new and modified sources would reduce 340,000 to 400,000 short tons of methane in 2025, the equivalent of reducing 7.7 to 9 million metric tons of carbon dioxide. EPA estimates the rule will yield net climate benefits of \$120 to \$150 million in 2025.⁶

The proposed standards would also generate significant public health benefits by curbing smog- and soot-forming VOC emissions and hazardous air pollutants. EPA anticipates that the standards will reduce VOC emissions by 170,000-180,000 short tons in 2025 and air toxics by 1,900-2,500 tons in 2025.

WE NEED THE STRONGEST POSSIBLE PROTECTIONS

EPA’s proposal is a significant step towards curbing climate disruption and protecting the health and well-being of communities across America. However, EPA can go further to set the strongest possible standards to reduce methane emissions. In order to strengthen the proposal, EPA must:

- Ensure the final standards include requirements for all methane-emitting sources in the oil and gas industry. This includes covering storage vessels, liquids unloading events, intermittent-bleed pneumatic controllers, and compressors at well sites, which were not covered in the proposal.
- Require source operators to use zero-emitting equipment or capture gas for sale or beneficial use on-site, rather than flare captured gas, unless it is technologically infeasible to do so. In addition, any combustion device must have at least a 95% control efficiency.

- Require regular inspections for leaks on a fixed basis, ideally four times per year or more.

Additionally, these standards cover only emissions from new and modified infrastructure. By 2018, nearly 90% of methane emissions will come from currently existing oil and gas sources.⁷ Strong methane emissions standards not only for new sources, but for existing sources as well, are key to the Administration’s ability to meet its international goal of reducing greenhouse gas emissions 26 to 28 percent below 2005 levels by 2025.⁸ EPA must therefore develop strong and effective standards for existing sources as soon as possible.

Lastly, rather than treat methane standards an end in themselves, the administration must develop a comprehensive plan to stop climate pollution and leave dirty fuels in the ground.

CALL TO ACTION

While no regulation of methane can ever make fracking safe, dirty polluters should not be allowed to continue bad practices that harm our communities and mar our landscapes. Tell the Obama administration that you support standards to help clean up our air and protect our climate and communities.

- Visit sc.org/CutMethane to submit a public comment in support of the EPA setting strong standards to clean up methane pollution from the oil and gas industry.
- Write a letter to the editor of your local newspaper sharing your support for the administration’s efforts to combat climate disruption and air pollution.
- Attend a public hearing. EPA is holding public hearings in PA, CO and TX. Sign up here: sc.org/MethanePA, sc.org/MethaneCO, sc.org/MethaneTX

Visit sc.org/methane for more information.

ENDNOTES

- 1 <http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results>
- 2 Id,
- 3 Id.; <http://www.epa.gov/climatechange/ghgemissions/global.html>
- 4 http://www.epa.gov/airquality/oilandgas/pdfs/og_fs_Q81815.pdf
- 5 http://catf.us/resources/publications/files/WasteNot_Summary.pdf
- 6 http://www.epa.gov/airquality/oilandgas/pdfs/og_fs_Q81815.pdf
- 7 http://www.edf.org/sites/default/files/methane_cost_curve_report.pdf
- 8 <https://www.whitehouse.gov/the-press-office/2015/03/31/fact-sheet-us-reports-its-2025-emissions-target-unfccc>

Sierra Club National
85 Second Street, 2nd Floor
San Francisco, CA 94105
(415) 977-5500

Sierra Club Legislative
50 F Street, NW, Eighth Floor
Washington, DC 20001
(202) 547-1141

sierraclub.org
facebook.com/SierraClub
twitter.com/SierraClub

