



March 20, 2023

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

Re: National Ambient Air Quality Standards for Particulate Matter, Docket ID No. EPA-HQ-OAR-2015-0072

Dear Mr. Regan,

The Center for American Progress is submitting these comments in response to the proposed rulemaking to lower the current limit for fine particulate matter (PM_{2.5} or soot) from an annual average of 12 micrograms per cubic meter to a level between 9 and 10 micrograms per cubic meter while maintaining the existing daily exposure limit of 35 micrograms per cubic meter. The Center for American Progress (CAP) – an independent, nonpartisan policy institute dedicated to improving the lives of all Americans – is committed to optimizing policies and practices that support health and economic justice in all communities.

While we applaud the Environmental Protection Agency's (EPA) efforts to limit soot exposure after years of inaction during the previous administration, the proposed rule is not ambitious enough and will fail to result in action needed to eliminate the threat to environmental justice and public health. We strongly encourage the EPA to strengthen soot standards to a maximum of 8 micrograms per cubic meter annually and 25 micrograms per cubic meter daily.

The danger from soot pollution is well documented – the tiny pollutants spewed by power plants, factories, and cars cause between 85,000 and 200,000 deaths¹ each year in the United States, and scientists have linked soot exposure to heart attacks, heart disease, strokes, lung disease, aggravated asthma symptoms, and infant and adult death.² It is the federal government's responsibility to set standards that limit how much soot can be present in the air to protect the public from the dangers to human health of soot and other types of air pollution. The EPA is required to review these standards every six years, and since 1971, the standards have been strengthened when scientific findings and public health needs have called for updates. The last time the soot standards were reviewed, the previous administration ignored scientific findings that showed that the standards established in 2012 were no longer sufficient³ and had the potential to cause "avoidable premature deaths."⁴

The Biden administration's EPA has taken a welcome step in the right direction by proposing to lower the current limit, but according to the latest science, the newly proposed standards are not enough. Data from both outside experts and the EPA's own scientists show the new standard must be lower than 9 micrograms per cubic meter annually to offer adequate protection. The EPA itself reports that based on available evidence, lowering the

standard to 8 micrograms per cubic meter would prevent five times as many deaths – up to 12,000 per year.⁵ The same is true for other types of serious, non-fatal health complications like strokes, heart attacks, cases of lung cancer, and asthma attacks. Stronger standards save more lives and avoid more illness.

The benefits of stronger standards for communities overburdened by air pollution like soot would be even greater. Due to years of racist redlining and segregation, Black, Latino, and Indigenous communities are 3.6 times more likely to live in areas with unsafe air quality than their white counterparts.⁶ They are also far more likely to suffer from preexisting conditions, like obesity and hypertension, that exacerbate the health problems caused by soot inhalation.⁷ These doubly at-risk communities need the strongest possible limits on soot. As the EPA notes in its analysis, disparities in exposure decrease as the limits become increasingly more stringent.⁸ Tougher standards are needed to protect communities of color and reverse a toxic legacy of unequal exposure to soot.

The health of natural resources and food systems are also at risk if the EPA fails to properly limit soot levels. In addition to considering the human health, the Clean Air Act requires the EPA to consider impacts on the public welfare, including the ecosystem, animals, crops, soil, water, vegetation, weather, visibility, and property. Soot repeatedly has been linked to haze, the acidification of rivers and lakes, acid rain,⁹ and global warming,¹⁰ thus making it a huge threat to our natural resources. Greater limits to soot likely would yield better outcomes for the environment.

The benefits of lowering soot emissions greatly outweigh the costs. The EPA estimates that lowering the limit to 8 micrograms per cubic meter could cost over a billion dollars. But that cost pales in comparison to the savings from reducing deaths and illness. Even lower-end estimates find that the combined economic value of avoided deaths and illness associated with a limit of 8 micrograms per cubic meter would be over \$127 billion in net benefits over 10 years.¹¹ These savings do not include benefits to health and well-being. The human cost of unchecked air pollution itself is unacceptable, and the benefits of strong standards are undeniable.

To honor the president's commitments to public health, the environment, and communities disproportionately exposed to pollutants, the Biden administration needs to strengthen soot standards to a maximum of 8 micrograms per cubic meter annually and 25 micrograms per cubic meter daily. Anything less puts American lives and natural resources at risk, shirks the requirements of the Clean Air Act, and betrays the administration's environmental justice commitments.

We strongly urge the EPA to strengthen soot standards beyond the current proposal.

Sincerely,

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- ¹ Christopher Tessum and others, “PM_{2.5} pollutants disproportionately and systemically affect people of color in the United States,” *Science Advances* 7 (18) (2021): 1-6, available at <https://www.science.org/doi/10.1126/sciadv.abf4491>
- ² U.S. Environmental Protection Agency, “Estimating PM_{2.5}- and Ozone-Attributable Health Benefits” (Research Triangle Park, NC: 2021), available at https://www.epa.gov/sites/default/files/2021-03/documents/estimating_pm2.5-_and_ozone-attributable_health_benefits_tsd.pdf.
- ³ Environmental Protection Agency, “EPA Finalizes NAAQS for Particulate Matter,” Press release, December 7, 2020, available at <https://www.epa.gov/newsreleases/epa-finalizes-naaqs-particulate-matter>.
- ⁴ Independent Particulate Matter Review Panel, “The Need for a Tighter Particulate-Matter Air-Quality Standard,” *The New England Journal of Medicine* 383 (7) (2020): 680-6, available at <https://www.nejm.org/doi/full/10.1056/NEJMsb2011009>.
- ⁵ U.S. Environmental Protection Agency, “Regulatory Impact Analysis for the Proposed Reconsideration of the National Ambient Air Quality Standards for Particulate Matter” (Research Triangle Park, NC: 2022), available at https://www.epa.gov/system/files/documents/2023-01/naaqs-pm_ria_proposed_2022-12.pdf.
- ⁶ The American Lung Association, “State of the Air 2022 Report” (Chicago, IL: 2022), available at <https://www.lung.org/research/sota/key-findings>.
- ⁷ U.S. Environmental Protection Agency, “Policy Assessment for the Reconsideration of the National Ambient Air Quality Standards for Particulate Matter” (Research Triangle Park, NC: 2022), available at https://www.epa.gov/system/files/documents/2022-05/Final%20Policy%20Assessment%20for%20the%20Reconsideration%20of%20the%20PM%20NAAQS_May2022_0.pdf.
- ⁸ U.S. Environmental Protection Agency, “Regulatory Impact Analysis for the Proposed Reconsideration of the National Ambient Air Quality Standards for Particulate Matter.”
- ⁹ U.S. Environmental Protection Agency, “Health and Environmental Effects of Particulate Matter (PM),” available at <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm> (last accessed March 2023).
- ¹⁰ Ulrike Lohmann and others, “Future warming exacerbated by aged-soot effect on cloud formation,” *Nature Geoscience* 13 (2020): 674–680, available at <https://www.nature.com/articles/s41561-020-0631-0#Sec15>.
- ¹¹ U.S. Environmental Protection Agency, “Regulatory Impact Analysis for the Proposed Reconsideration of the National Ambient Air Quality Standards for Particulate Matter.”