MEMORANDUM September 15, 2023

TO: Members of the Subcommittee on Environment, Manufacturing, and Critical Materials

FROM: Committee Majority Staff

RE: Hearing entitled "Protecting American Manufacturing: Examining EPA's Proposed $PM_{2.5}$ Rule"

I. INTRODUCTION

On Tuesday, September 19, 2023, at 10:30 a.m. in 2123 Rayburn House Office Building, the Subcommittee on Environment, Manufacturing, and Critical Materials will hold a hearing entitled "Protecting American Manufacturing: Examining EPA's Proposed $PM_{2.5}$ Rule." Witnesses are by invitation only. The hearing will examine issues surrounding the U.S. Environmental Protection Agency's reconsideration of air quality standards for fine particulate matter, including potential implementation challenges and impacts on manufacturing and economic development.

II. WITNESSES

Bryce Bird, Director, Division of Air Quality, Utah Department of Environmental Quality, and Past President of the Association of Air Pollution Control Agencies (AAPCA)

Glenn Hamer, President and CEO, Texas Association of Business

Tim Hunt, Senior Director Air Quality Programs, American Forest & Paper Association and American Wood Council

Almeta E. Cooper, National Manager, Health Equity, Moms Clean Air Force

III. BACKGROUND

The Clean Air Act (CAA) requires the Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) for six common pollutants, so-called criteria pollutants, including particulate matter.[1] The CAA requires the primary standards for these pollutants to be set at a level that, in the judgment of the EPA Administrator, is requisite to protect public health, allowing for an adequate margin of safety. The CAA requires further that

[1] These pollutants include ground-level ozone, carbon monoxide, sulfur dioxide, lead, nitrogen dioxide, and course and fine particulate matter. See https://www.epa.gov/criteria-air-pollutants.

EPA "complete a thorough review" of these standards every five years and make revisions as may be appropriate to maintain the requisite level of protection.[2]

A. PARTICULATE MATTER STANDARDS

Particulate matter (PM) is a complex mixture of extremely small particles that can be directly emitted from sources such as forest fires, or form when gases react in the air. EPA initially established PM NAAQS standards in 1971, and subsequently reviewed and revised per statutory requirements these standards in 1987, 1997, 2006, 2012, and 2020. These NAAQS include standards for "fine" particulate matter, which includes particles 2.5 micrometers in diameter or smaller, known as "$PM_{2.5}$."

EPA has established health-based "primary" $PM_{2.5}$ standards for both annual and 24-hour averaging times to protect the public health with an adequate margin of safety. The primary 24-hour $PM_{2.5}$ standard was last revised in 2006, from a level of 65 micrograms per cubic meter (μg/m3) to 35 μg/m3. The primary annual standard has, since 2012, been set at a level of 12 μg/m3. Following the last statutory review of PM completed in December 2020, the EPA decided to retain the existing standards.[3]

EPA has also established welfare-based "secondary" $PM_{2.5}$ standards to protect the public welfare from any known or anticipated adverse effects associated with the presence of the pollutant in the ambient air.[4] The EPA has in all previous reviews revised the $PM_{2.5}$ secondary standards by making them identical in all respects to the primary standards.

B. IMPLEMENTATION OF THE NAAQS

Establishing a new standard does not directly limit emissions or compel specific emissions controls. Rather, promulgation of NAAQS sets in motion a CAA prescribed process under which the states and tribes must implement monitoring, regulatory, and permitting programs to attain or maintain the standards, subject to EPA approval. A key step involves using air monitoring data to determine whether areas are in attainment or nonattainment of the standards, which EPA ultimately designates.[5]

States with nonattainment areas develop and submit State Implementation Plans (SIPs) to EPA, which identify specific state and federal regulations, emission control and enforcement requirements that are to bring areas into compliance. Once designated as in nonattainment, an area remains subject to stricter levels of EPA regulatory oversight, pursuant to the CAA, even for many years after it attains the standard to assure the area's attainment is maintained. For areas

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[2] See Clean Air Act Section 109.
[3] See 85 Federal Register 82684 December 18, 2020
[4] Welfare effects include effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being.
[5] See "Air Quality: EPA's 2023 Proposed Changes to the Particular Matter (PM) Standard," Congressional Research Service, August 16, 2023. R47652.

that initially meet the standards, states must establish modeling and permitting programs that assure new and expanded economically significant projects—industrial activity, manufacturing, energy generation—do not cause or contribute to violations of the standards in the future.[6]

C. IMPROVING AIR QUALITY

Under the CAA, the nation's air quality has improved dramatically due to the combination of standards, effective state implementation, and manufacturing and industrial innovation.[7] As EPA data shows, total emissions of criteria pollutants have dropped 73 percent since 1980. Concentration levels of PM_{10} have dropped some 30 percent nationally since 2000; Annual $PM_{2.5}$ concentration levels fell 42 percent and the 24-hour levels fell 42 percent over the same period.

Direct emissions of $PM_{2.5}$ since 2000 have dropped 35 percent and emissions of most PM precursors have also dropped: sulfur dioxide by 89 percent, nitrogen oxides by 67 percent, and volatile organic compounds by 30 percent.[8,9] Continued declines in these emissions can be expected to continue with existing federal, state, and local programs, as well as ongoing technology and efficiency improvements.

D. PM RECONSIDERATION PROPOSAL

Although a thorough statutory review had been completed and EPA reached a final decision to retain the PM standards in December 2020, the EPA Administrator announced in June 2021 that the agency would reconsider the December decisions for retaining the $PM_{2.5}$ standards by developing a "supplement" to the previous scientific review.[10]

On January 27, 2023, EPA published its proposal to revise the annual $PM_{2.5}$ primary standard by lowering the level from 12.0 μg/m3 to a value between 9.0 and 10.0 μg/m3 and sought comments on lowering the standard to 8.0 μg/m3.[11] The proposal would retain the current primary and secondary 24-hour $PM_{2.5}$ standard at 35 μg/m3. The agency also proposes revisions in other key aspects relating to NAAQS air monitoring and compliance.

Implementation of standards tighter than the current standards may have substantial economic impact in the United States. Projections for the National Association of Manufacturers (NAM) for example, indicate in the manufacturing sector, regulations flowing from more stringent $PM_{2.5}$ standards could threaten some $162 billion to $192 billion in current economic

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[6] See EPA's Prevention of Significant Deterioration Basic Information linked here.
[7] See EPA, Air Quality – National Summary linked here.
[8] *Id.*
[9] For additional air trends data, see, also: "State Air Trends & Successes: the StATS Report," 2023 edition, Association of Air Pollution Control Agencies linked here.
[10] The Administrator also sought to reconsider by a similar process the December 2020 decision to retain existing ozone standards, following a thorough review for those standards. In August 2023, the Administrator decided to cease the ozone review and fold it into the regular statutory review process. The Administrator has withdrawn the ozone proposal rulemaking to undertake the more thorough statutory process, as he has the discretion to do so.
[11] See 88 Federal Register 5558 January 27, 2023

activity and reduce future growth by approximately $138 billion – affecting over a million jobs in total.[12]

For its part, EPA estimates that revising the $PM_{2.5}$ standards could bring more than 100 counties in the country into nonattainment. Although EPA was unable to identify the necessary controls to achieve compliance, or model the full costs of nonattainment, states will have to implement plans and permitting regimes to address the nonattainment status.[13] Moreover, depending on the final standard, hundreds of additional counties, covering large regions of the nation, could be so close to the standard, that any meaningful manufacturing expansion would threaten nonattainment, thus limiting economic development[14] —an issue particularly pertinent to federal efforts to incentivize new manufacturing in the nation.

State implementation of the $PM_{2.5}$ standards has its own challenges. As members of the Association of Air Pollution Control Agencies recently noted: "With each successive, tighter $PM_{2.5}$ NAAQS, achieving the standard becomes more difficult, particularly as the NAAQS potentially approach background concentrations while the majority of stationary sources have control measures to reduce $PM_{2.5}$ emissions."[15]

In this situation, compliance challenges are exacerbated. EPA reports that point-sources of $PM_{2.5}$ emissions—from the power sector and industrial sources—account for only 16 percent of emissions; the remaining 84 percent of emissions are from so-called non-point sources, including fires (43%), road dust (16%), agriculture dust (14%), cars and trucks (5%).[16] The paths to compliance therefore would involve transportation, construction, housing, and the agricultural economy. Additionally, as areas move closer to background levels, states and regulators will face increasing challenges that involve background emissions, emissions outside of their control, such as wildfire events, and related wildfire control programs.

IV. ISSUES

The following issues may be examined at the hearing:

- The impacts of the proposed $PM_{2.5}$ standards on industrial, manufacturing, and economic expansion.

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[12] See "U.S. Air Quality Standards and the Manufacturing Sector: A Report for the National Association of Manufacturers," Oxford Economics, April 2023, linked here.
[13] See "Comments of the NAAQS Regulatory Review & Rulemaking Coalition on EPA's Reconsideration of the National Ambient Air Quality Standards for Particulate Matter," beginning at page 85, Docket No. EPA-HQ-OAR-2015-0072.
[14] *Id.* Beginning at page 37.
[15] See "Understanding the Impact of a Lower Find Particulate Matter National Air Quality Standard," Michael Abraczinskas, Jason Myers, and Jason Sloan, The Magazine of Environmental Managers, May 2023.
[16] Policy Assessment for Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, EPA, May 2022, linked here.

- The timing, monitoring, permitting, and emissions-source challenges relating to implementing the proposed $PM_{2.5}$ standards.

- Clean Air Act requirements to review the welfare and economic impacts and related challenges concerning implementation of proposed NAAQS standards.

- Exceptional events process under the NAAQS program.

V. STAFF CONTACTS

If you have any questions regarding this hearing, please contact Peter Spencer, Sarah Alexander, or Mary Martin of the Committee staff at (202) 225-3641.