November 15, 2023

The President
The White House
Washington, DC 20500

Re: Support for Protective Particulate Standards for Light- and Medium-Duty Vehicles

Dear Mr. President,

The 29 undersigned organizations write to express our strong support for the Environmental Protection Agency's (EPA) proposal to strengthen standards for harmful particulate matter (PM) emissions within the Agency's proposed Multi-Pollutant Emissions Standards for Model Year 2027 and Later Light-Duty and Medium-Duty Vehicles, 88 Fed. Reg. 29184 (May 5, 2023). Many of our organizations previously submitted comments to EPA in support of the multipollutant standards during the open comment period of the proposed rulemaking. Finalizing strong PM standards that drive the deployment of off the shelf, low-cost gasoline particulate filters (GPFs) will save lives and reduce asthma attacks and cancer risk, all while saving our nation billions of dollars in avoided healthcare costs.

Exposure to PM can affect both the lungs and the heart. Numerous peer-reviewed scientific studies have linked particle pollution exposure to significant heath harms, including premature death in people with heart or lung disease, nonfatal heart attacks, aggravated asthma, decreased lung function, and increased respiratory symptoms.[1] People with heart or lung diseases, children, and older adults are especially vulnerable to particle pollution exposure.

Strong standards will also protect vulnerable communities. People of color in the United States are exposed to disproportionately high levels of ambient PM pollution, including from motor vehicle emissions. One study finds that on a national level, people of color are exposed to 46 percent more ambient $PM_{2.5}$ from light-duty gasoline vehicles than white people.[2]

EPA's proposed PM limit of 0.5 mg/mile would greatly reduce particulate emissions from new gasoline vehicles. These proposed standards are critical as there is growing evidence of increases in particulate emissions from recent model year gasoline vehicles. A June 2023 ICCT analysis looking at remote sensing data shows that recent model year light-duty vehicles (2015-2020) show a marked increase in UV smoke, a proxy for particulates, while other pollutants, like carbon monoxide and ozone-forming nitrogen oxides, showed clear and consistent downwards trends.[3] The issue of elevated particulate emissions from some gasoline vehicles and the need

[1] https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm
[2] Tessum, C et al. (2021). $PM_{2.5}$ Polluters Disproportionately and Systemically Affect People of Color in the United States, Science Advances 7, no. 18: eabf4491, https://doi.org/10.1126/sciadv.abf4491.
[3] Meyer, M., Khan, T., Dallmann, T., Yang, Z. Particulate matter emissions from U.S. gasoline light-duty vehicles and trucks: TRUE Initiative U.S. remote sensing database case study. ICCT, June 2023. https://theicct.org/publication/true-pm-emissions-jun23/

for more protective PM standards was identified before EPA finalized its Tier 3 standards nearly a decade ago.[4]

EPA states that the strengthened PM emissions limit will likely be met through the installation of gasoline particulate filters (GPFs).[5] GPFs are a mature technology and studies have demonstrated they can reduce particulate emissions by 97% to 100% compared to vehicles without filters.[6] According to EPA they have been used in series production on new gasoline vehicles in Europe since 2017 and are now being used by U.S., European, and Asian manufacturers, with several manufacturers currently assembling vehicles equipped with GPFs in the U.S. for export to other markets.[7] GPFs are also cost-effective devices – EPA estimates per vehicle manufacturing costs of $51–$166.[8] Other independent studies conducted over a decade ago found similar GPF costs of $50–$184, indicating that current costs could be significantly lower.[9]

A June 2023 report from the Manufacturers of Emission Controls Association (MECA) found tremendous health benefits of GPFs, even with significant deployment of zero-emission vehicles projected by EPA.[10] According to the analysis, the health benefits of more protective PM standards would effectively double the benefit of electrification alone. The cumulative benefits of standards that drive more GPF use in the combustion vehicle fleet through 2050 include:

- 58,000 to 112,000 tons of particulate matter emissions eliminated;
- 42,000 to 81,000 tons of climate-forcing black carbon emissions eliminated;
- $18 to $163 billion in healthcare cost savings;
- Up to 22,000 premature deaths prevented; and
- Up to 314,000 asthma attacks avoided.

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[4] Gladstein, Neandross & Associates. (2013). Ultrafine Particulate Matter and the Benefits of Reducing Particle Numbers in the United States. https://cdn.gladstein.org/pdfs/MECA_UFP_White_Paper_0713_Final.pdf.

[5] 88 Fed. Reg. at 29264 (May 5, 2023).

[6] Felix Leach et al. (2021). A Review and Perspective on Particulate Matter Indices Linking Fuel Composition to Particulate Emissions from Gasoline Engines," *SAE International Journal of Fuels and Lubricants* 15, no. 1: 3–28, https://doi.org/10.4271/04-15-01-0001; Jiacheng Yang et al. (2018). Gasoline Particulate Filters as an Effective Tool to Reduce Particulate and Polycyclic Aromatic Hydrocarbon Emissions from Gasoline Direct Injection (GDI) Vehicles: A Case Study with Two GDI Vehicles. *Environmental Science & Technology* 52, no. 5: 3275–84. https://doi.org/10.1021/acs.est.7b05641

[7] 88 Fed. Reg. at 29268 (May 5, 2023); See also MECA presentation to OMB, March 6, 2023 (showing that U.S.-manufactured models (Ford Mustang and Jeep Grand Cherokee) that are exported to Europe and China have GPFs installed). https://www.reginfo.gov/public/do/eoDownloadDocument?pubId=&eodoc=true&documentID=210843

[8] 88 Fed. Reg. at 29270 (May 5, 2023).

[9] Minjares, R and Posada Sanchez, F. (2011). Estimated cost of gasoline particulate filters. *International Council on Clean Transportation.* https://theicct.org/publication/estimated-cost-of-gasoline-particulate-filters/; Steininger. (2011). Particle number emission limits for Euro 6 positive ignition vehicles. https://www.nanoparticles.ch/archive/2011_Steininger_PR.pdf

[10] MECA Clean Mobility. Impacts Analysis of a Revised Federal Light-Duty On-Road Particulate Matter Standard. June 2023, https://www.meca.org/wp-content/uploads/2023/06/LDV_PM_Standard_Final_Report_06272023.pdf. See also MECA presentation to OMB, March 6, 2023. https://www.reginfo.gov/public/do/eoDownloadDocument?pubId=&eodoc=true&documentID=210843

By finalizing the proposed standards, EPA will bring the U.S. in line with other major vehicle markets. According to MECA, by 2023, four years ahead of EPA's proposed particulate standard implementation, two-thirds of the automotive manufacturing markets, including Europe, India and China, will be meeting tighter PM emission standards similar to those now proposed by EPA.[11]

EPA's proposed updated standard would provide cost-effective and much needed health benefits through reduced particulate matter emissions. We urge the Administration to finalize its Multi-Pollutant Emissions Standards, including the strong health-protecting particulate standards, without delay.

Sincerely,

AESI
Alliance of Nurses for Healthy Environments
CEERT (Center for Energy Efficiency and Renewable Technologies)
Center for Biological Diversity
Clean Air Task Force
Colorado Fiscal Institute
Ecology Center
EcoMadres
Electric Vehicle Association
Environmental Defense Fund
Environmental Law & Policy Center
Environmental Protection Network
Evergreen Action
EVHybridNoire
GreenLatinos
Interfaith Power & Light
League of Conservation Voters (LCV)
MI Air MI Health
Michigan Environmental Council
Michigan League of Conservation Voters
Moms Clean Air Force
Natural Resources Defense Council
Plug In America
Public Citizen
Respiratory Health Association
Sierra Club
The Revolving Door Project
Union of Concerned Scientists
WE ACT for Environmental Justice

Cc.: Michael Regan, Administrator, U.S. Environmental Protection Agency

[11] *Id.*