



May 16, 2022

The Honorable Michael S. Regan  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
Washington, DC 20004

Re: Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards, Docket Number EPA-HQ-OAR-2019-0055; FRL-7165-03-OAR

Dear Administrator Regan:

On behalf of the undersigned health and medical organizations, we write to provide comment on the United States Environmental Protection Agency’s (US EPA) proposed Heavy-Duty Engine and Vehicle Standards. Cleaning up the trucking sector is a public health and health equity priority, and we urge US EPA to establish strict new standards by the end of 2022 that push the rapid cleanup of smog-forming emissions from trucks, ensure real-world pollution reductions and spur the transition to zero-emission trucking.

Over forty percent of all Americans live in communities impacted by unhealthy levels of ozone and/or particle pollution, according to the American Lung Association’s *State of the Air* 2022 report.<sup>1</sup> The trucking sector is a major source of smog- and particle-forming oxides of nitrogen emissions (NOx) that threaten health across the United States and add to localized health burdens and disparities. Poor air quality is associated with a wide range of negative health outcomes, including asthma attacks, heart attacks and stroke, low birthweight, premature birth, developmental harms, lung cancer and premature death. As US EPA notes, there are significant disparities in exposures to harmful trucking pollution, and those most impacted are “more likely to be people of color and have lower incomes.”<sup>2</sup>

***Our organizations offer the following comments to express our strong support of the adoption of Option 1 in 2022 and to offer recommendations to improve upon this proposal.***

We view US EPA’s proposed Option 1 as a far more health-protective pathway to cleaning up trucking emissions than Option 2, which we do not believe is an appropriate pathway for health protection or

<sup>1</sup> American Lung Association. *State of the Air* 2022. April 2022. [www.lung.org/sota](http://www.lung.org/sota)

<sup>2</sup> United States Environmental Protection Agency. Transportation and Environmental Justice. Regulatory Rulemaking Announcement. March 2022. <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P10144Y3.pdf>

technology availability or to a zero-emission trucking future. Adopting a stronger Option 1 is critical to reducing health and equity burdens and setting a stronger course to a sustainable transportation system. Of the two options proposed, Option 1 would provide greater health benefits than Option 2, including up to \$33 billion in health benefits, and significant ozone-related health benefits up to:

- 2,100 premature deaths avoided
- 16,000 pediatric asthma cases avoided
- 2.8 million instances of asthma symptoms avoided
- 1.1 million lost school days avoided<sup>3</sup>

#### **Align NOx stringency requirements for new engines with California policy and timeline**

In 2016, leading health and medical organizations called for stronger truck standards in a letter to then US EPA Administrator McCarthy, noting then that standard in line with the proposed Option 1 introduced in March 2022 was needed to protect health and align with the 2015 ozone standards. Once again, we call on US EPA to establish a health-protective standard for all new trucks.

The final standards must ensure a 90 percent reduction in emissions from new trucks compared with the current standards, or 0.02 grams per brake horsepower hour of NOx emissions. The standards must include stronger provisions to address pollution caused throughout the operations of the truck, including low-load standards, idling and highway conditions. Option 1 must be strengthened and – at a minimum – harmonized with the California Low NOx Omnibus rule adopted in 2020 to deliver a 90 percent reduction in NOx emissions from new trucks as of 2027, along with the California low-load and idle emissions requirements. US EPA should accelerate Option 1 to align to this schedule. Further, we support the proposal to strengthen particle emission standards to 5 milligrams per mile to account for advances in engine designs and to protect against backsliding within any future engine technologies. Again, public health demands that US EPA act to establish a long-overdue, comprehensive, and health-protective standard: ***It is imperative that the US EPA strengthen and adopt Option 1 in 2022.***

#### **Ensure emission benefits of more stringent standards translate to real-world benefits**

To realize the maximum health benefits, US EPA recognizes the need to establish standards that look beyond the stringency levels and proposes updated test procedures, truck “useful life” requirements and warranty provisions to support achieving pollution reductions across real-world driving conditions throughout the useful life of the truck. We believe that Option 1 provides a strong foundation, and offer the following recommendations to protect public health:

***Strengthen full useful life to 1 million miles.*** We appreciate that Option 1 would require emission controls to operate as intended over a more realistic useful life of the truck. By extending the mileage through which the control systems must operate correctly, the proposal recognizes that emissions can rise as engines age. We appreciate that Option 1 proposes to cover *more* of a vehicle’s estimated full useful life than both existing rules and what would be covered by Option 2, but we believe that the mileage requirements for heavy-duty vehicles must be set to 1 million miles in order to capture *all* of the operational life of the vehicle, which EPA considers to be over 900,000 miles.<sup>4</sup>

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<sup>3</sup> US EPA. Regulatory Impact Analysis Draft at page 394 (Note: additional particle pollution-related health endpoints are included in the analysis at page 393). March 2022. <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P10144K0.pdf>

<sup>4</sup> US EPA. Overview Briefing of the Proposal at page 11. April 2022. <https://www.epa.gov/system/files/documents/2022-04/hd-2027-stds-nprm-overview-2022-04.pdf>

**Strengthen warranty provisions to match full useful life.** Again, we appreciate that Option 1 proposes strengthening the emissions control warranty provisions to cover a greater period of a truck's operational life, but recommend full warranty coverage for emissions controls to ensure repair and replacement throughout the life of the vehicle. Warranty coverage provides a level of certainty to the owner of a new or used truck that the vehicle emission controls will function properly or be repaired by the manufacturer, therefore restoring emission benefits in the event of failure. US EPA also notes that warranty coverage reduces the likelihood of tampering or delayed maintenance of emission controls, which must remain the case in the later stages of vehicle life.

**Ensure pollution benefits are not reduced by credits or tampering.** The proposal must not allow for engine families to generate excess emissions far above levels established in Option 1 by balancing benefits of zero-emission or hybrid vehicles against engines, or engine families, that would be allowed to emit above certification standards. Further, US EPA should work with California to develop a national approach to ensuring meaningful operator inducements to correct emission control failures in a timely manner and to protect against tampering with emission control systems.

**Support stronger climate pollution reductions and boost the transition to zero-emission trucks.** We support a widespread and rapid transition to zero-emission trucks, noting that the proposed Option 1 assumes extremely limited growth in the zero-emission truck market and may work at cross purposes to both emission reductions and more rapid electrification. Six states have now adopted zero-emission truck standards, and more are in the process of adopting standards and other agreements that will further accelerate the zero-emission truck market. To truly spur the transition to zero emissions, the final rule must account for greater growth in the zero-emission truck market and establish more stringent greenhouse gas standards that account for this growth. Failing to account for the growth in the zero-emission vehicle market may reduce the overall benefits of the rule if higher emitting trucks are balanced against advanced technology credits. Conversely, establishing a stronger signal via Phase 2 is essential to setting the stage for accelerating to zero-emission technologies throughout the trucking sector.

US EPA must move quickly to ensure the transition to zero-emission trucking under the Phase 3 Greenhouse Gas Emission Standards that follow this current proposed rulemaking. The shift to zero-emission trucks will yield major clean air and climate benefits and provide much-needed relief to communities most directly affected by trucking pollution today. The American Lung Association recently issued a report finding that the United States could experience over \$1 trillion in public health benefits between 2020 and 2050 through widespread shifts to zero-emission transportation and electricity generation, with the potential for over 110,000 lives saved.<sup>5</sup> US EPA must move quickly to establish a clear and direct pathway to the full transition to zero-emission trucks in the near term.

**In summary, we urge US EPA to strengthen the Option 1 standard and to adopt the final rule this year to ensure implementation by 2027.** We urge you to not only finalize strong standards, but also ensure real-world benefits by requiring pollution controls for the full lives of these vehicles and throughout all real-world operating conditions.

Sincerely,

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<sup>5</sup> American Lung Association. Zeroing in on Healthy Air. March 2022. [www.lung.org/ev](http://www.lung.org/ev)

Academy of Integrative Health & Medicine (AIHM)  
Allergy & Asthma Network  
Alliance of Nurses for Healthy Environments  
American Lung Association  
American Public Health Association  
American Thoracic Society  
Asthma and Allergy Foundation of America  
Children's Environmental Health Network  
Climate for Health  
Medical Society Consortium on Climate and Health  
Medical Students for a Sustainable Future  
Physicians for Social Responsibility