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U.S. Environmental Protection Agency
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To Whom It May Concern:

The National Association of Clean Air Agencies (NACAA) offers the following comments on the U.S. Environmental Protection Agency's (EPA) Notice of Proposed Rulemaking (NPRM), "Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards," which was published in the *Federal Register* on March 28, 2022 (87 Fed. Reg. 17,414).¹ NACAA is the national, nonpartisan, non-profit association of air pollution control agencies in 40 states, including 115 local air agencies, the District of Columbia and four territories. The air quality professionals in our member agencies have vast experience dedicated to improving air quality in the U.S. These comments are based upon that experience. In addition, a number of our members have been, and are, directly involved in low-emission engine demonstrations, incentive programs to field cleaner engines and vehicles and investing in zero-emission technology. That combined engine and advanced powertrain practical experience is also reflected in these comments. The views expressed in these comments do not represent the positions of every state and local air pollution control agency in the country.

Introduction

On multiple occasions over the past seven years NACAA has urged EPA to set cleaner standards for nitrogen oxide (NO_x) emissions from heavy-duty (HD) trucks. We are pleased that the agency has now reached the milestone of putting forth a proposal for public comment.

As we have described to EPA over the years, NACAA strongly supports establishment of a stringent, technology-forcing federal rule that will reduce HD truck NO_x emissions by at least 90 percent and implement other key requirements to ensure these reductions will continue to be realized over the full useful life of vehicles beginning not later than with model year (MY) 2027.

We have consistently highlighted the importance of such a federal program adopted no later than 2022 so implementation will begin no later than MY 2027. We are now at the "final hour." If EPA does not finalize a rule before the end of this calendar year it will not take effect with MY 2027. With clean air and public health on the line, our nation cannot afford to sacrifice another year of NO_x reductions from this significant source of emissions.

¹ <https://www.govinfo.gov/content/pkg/FR-2022-03-28/pdf/2022-04934.pdf>

The Nationwide Need for NO_x Emission Reductions from Heavy-Duty Trucks

It has been over 21 years since EPA last set federal NO_x emission standards for HD trucks. Given the interstate nature of trucking – both cross-border operations and downwind atmospheric transport – federal standards are necessary to achieve the broad NO_x reductions needed across the nation. Over the past two decades, technological advances to reduce HD truck NO_x emissions have soared as has the potential for even further advances, but EPA failed to take regulatory advantage of the opportunities these advances afford. At the same time, emission limits for most other major NO_x sources have been ratcheted down repeatedly. HD trucks will continue to be one of the largest contributors to the national mobile source NO_x inventory in 2028 without additional regulations to reduce emissions.

There is a looming crisis facing many state and local clean air agencies. Currently, more than one-third of the U.S. population lives in an area that does not meet the health- and welfare-based National Ambient Air Quality Standards (NAAQS) for ozone, particulate matter (PM) or both. Many of these areas are over-burdened communities whose citizens are exposed to a disproportionate share of harmful environmental conditions. The excessive emissions from HD trucks are a primary cause, contributing substantial emissions of NO_x – the key pollutant contributing to the formation of ozone and PM_{2.5} – and are linked with a large number of adverse impacts on the respiratory system, as well as other ill effects associated with exposure to elevated levels of ozone and PM, including premature death.

While state and local air agencies have made great strides in reducing emissions from stationary sources, for the most part they lack the authority to regulate mobile sources and never do they have the authority to regulate mobile sources upwind of or across their borders. The regulation of mobile sources is an authority that lies almost entirely within the purview of the federal government. Unfortunately, emission standards for this heavy-duty “federal source” have not kept pace with standards for the light-duty motor vehicle sector or stationary sources, and fall far short of what is needed to meet clean air and public health protection goals. As large swaths of the country slip deeper into nonattainment, or teeter on the cusp of it, many state and local air agencies are left with few avenues to achieve the emission reductions they sorely need. Areas that miss their attainment deadlines face the threat of “bump-up” to a more demanding classification of nonattainment – if they are not already classified as Extreme – and statutorily required economic sanctions if they fail to meet their attainment deadlines. On April 13, 2022, EPA proposed to bump up 30 areas in nonattainment of the 2008² and 2015³ ozone NAAQS, meaning the citizens of these areas continue to suffer the detrimental impacts of unhealthful air.

Further, EPA is now in the process of reconsidering the existing PM and ozone NAAQS, adopted in 2012 and 2015, respectively, and reaffirmed in December 2020. With respect to PM, the agency’s science advisors on the Clean Air Science Advisory Committee (CASAC) are recommending that EPA revise the standards to make them more protective of public health. In a letter transmitted to Administrator Michael S. Regan on March 18, 2022,⁴ responding to the EPA staff Draft Policy Assessment (PA) for PM, the science advisors wrote that “all CASAC members agree that the current level of the annual [PM_{2.5}] standard [of 12 micrograms per cubic meter (μg/c³)] is not sufficiently protective of public health and should be lowered” and that a majority of CASAC members finds “that the available evidence calls into question the adequacy of the current 24-hour standard [of 35 μg/m³]” and “conditional on retaining the current form, the majority of CASAC members favor lowering the 24-hour standard.” NACAA also notes that in the Draft

² <https://www.govinfo.gov/content/pkg/FR-2022-04-13/pdf/2022-07509.pdf>

³ <https://www.govinfo.gov/content/pkg/FR-2022-04-13/pdf/2022-07513.pdf>

⁴ <https://www.4cleanair.org/wp-content/uploads/PM-NAAQS-CASAC-Responses-to-EPA-PM-Draft-PA-031822.pdf> (see pp. 2-3)

PA EPA staff report that the risk assessment for PM_{2.5} revealed that Black populations experience significantly higher mortality risk when compared to other racial groups, even at the recommended lower standard.⁵

On April 28, 2022,⁶ EPA staff released for review and comment the Draft PA for ozone, in which the staff put forth their conclusion that the current evidence and information do not call into question the adequacy of the protection provided by the current standard and, instead, continue to provide support for the current standard and consideration of retaining that standard without revision. CASAC members, who have not yet weighed in, were to meet in June to conduct their peer review of the Draft PA. However, on May 13, 2022, CASAC Chair Dr. Lianne Sheppard issued a memorandum⁷ in which she announced that she had paused review of the Draft PA so the Committee can 1) discuss EPA's charge question about the CASAC Ozone Panel's views on "EPA's evaluation of newer studies and its conclusion that they do not materially change the findings of the 2020 ISA [Integrated Science Assessment] or warrant reopening of the air quality criteria," 2) consider several Panel members' concerns regarding some of the causal determinations made in the 2020 ISA and 3) decide if the Panel would like to have further discussion of the science prior to reviewing the draft PA.

Regardless of whether either or both standards are strengthened, the fact is that many areas across the country are in need of NO_x reductions just to meet the current standards and provide clean air to their citizens.

Our nation is in need of a strong, sustainable transportation strategy with top priority placed on new federal programs to continue to reduce emissions from the mobile source sector. As this strategy is developed, the need for meaningful reductions in criteria pollutant emissions, especially NO_x and PM, cannot be overlooked. Regarding attainment and maintenance of the ozone NAAQS, most areas of the country are "NO_x-limited," meaning that reducing NO_x emissions is the key to success. In addition, research shows that in some areas of the country, such as much of the East Coast, NO_x reductions are now "supercharged," meaning that one-pound of reduction in NO_x emissions equals more than one pound of ozone reduction. Failure to adequately address transportation-related NO_x sources will have a direct and consequential impact on state and local air agencies' abilities to fulfill their statutory obligations to attain and maintain federal air quality standards by mandated deadlines and achieve their environmental justice goals.

Now is the time for decisive federal action that will result in deep NO_x reductions from HD trucks. Cleaning up this sector is imperative to putting our nation on a path to attaining and maintaining the health-based NAAQS and protecting our nation's most vulnerable communities. EPA must take full advantage of this opportunity to adopt a maximally stringent, technology-forcing federal rule that will take effect beginning with MY 2027 and achieve the full measure of potential emission reductions. Through a variety of actions, states are demonstrating strong leadership with respect to addressing HD truck NO_x emissions, including by exercising their authority under section 177 of the CAA and through non-regulatory efforts such as collaborative Memoranda of Understanding (MOU). It is incumbent upon EPA to do its part. If EPA does not incorporate NACAA's recommendations into the final rule and does not finalize the rule this year, in time for it to take effect with MY 2027, many areas will be forced to adopt severe limits on stationary

⁵ https://www.epa.gov/system/files/documents/2021-12/draft-policy-assessment-for-the-reconsideration-of-the-pm-naaqs_october-2021_ed3.pdf (see pp. 3-149 – 3-150)

⁶ https://www.epa.gov/system/files/documents/2022-04/o3_reconsideration_draft_pa-v_final-compressedfinal.pdf

⁷ <https://www.4cleanair.org/wp-content/uploads/CASAC-Ozone-Panel-Chair-Memo-05-13-22.pdf>

sources, for which they have authority to control, at ever-increasing costs, if reductions from such sources are even available.

State and Local Air Agencies Across the Country Face an Array of Circumstances Necessitating NO_x Reductions

Americans in every part of the country urgently need improvements in NO_x emissions from onroad HD vehicles; the following examples are just a few indications of this nationwide need.

In Wisconsin, EPA action to significantly reduce NO_x emissions from highway heavy-duty vehicles is critical for the state to meet its Clean Air Act (CAA) attainment obligations relative to ozone. Wisconsin's Lake Michigan shoreline experiences complex, persistent ozone issues due to a combination of emissions, meteorology and geography, as well as from transported ozone precursors originating from out of state. As a result, Wisconsin has multiple areas that remain in nonattainment of the 2015 ozone standard. Reductions in regional NO_x emissions are necessary to resolve these nonattainment areas. The onroad mobile sector is the largest contributor of NO_x emissions in Wisconsin. According to the 2017 National Emissions Inventory, the onroad mobile sector accounts for 38 percent of the NO_x inventory in Wisconsin, with nearly half of those emissions coming from heavy-duty vehicles. Recent ozone modeling done by the Lake Michigan Air Directors Consortium indicates onroad diesel vehicles, the vast majority of which are heavy-duty vehicles, contribute up to 8 parts per billion (ppb) or 11 percent of ozone at Wisconsin's lakeshore nonattainment monitors. A comprehensive federal rule to address nationwide NO_x emissions from this sector cannot be delayed any further.

New Jersey and its multi-state nonattainment areas need NO_x reductions from HD trucks for attainment and/or maintenance reasons associated with both the 2008 and 2015 ozone NAAQS. Although the state is currently in attainment of the PM_{2.5} NAAQS, the NO_x reductions would help the state attain any future revised PM_{2.5} NAAQS by reducing levels of PM_{2.5} precursors. In addition, New Jersey needs NO_x reductions to meet its regional haze goals; given the timing of this rule – to be finalized this year – the related NO_x reductions will contribute toward achievement of those goals. New Jersey is also home to several ports that are surrounded by environmental justice communities impacted by the emissions from heavy truck traffic. Mobile sources (onroad and nonroad) make up greater than 75 percent of New Jersey's annual and summer day inventory for NO_x. Due to state preemption, New Jersey is limited in its capacity to address the largest sources of ozone-producing pollutants and relies on federal measures like the HD truck rule to attain. In New Jersey, electric generating units (EGU) are less than 5 percent of the inventory and non-EGU stationary sources are 14 percent. The cost per ton associated with further reductions from these source sectors would be high.

Over the years, Oregon has had difficulty reducing emissions from the medium- and heavy-duty mobile source sectors because of limited tools at the state level. Oregon relies on California and its federal counterparts at EPA to develop and maintain the most advanced new vehicle emission standards possible to complement bold action at the state level. In 2019, Oregon adopted the second strongest diesel regulations in the nation and will begin phasing out older model medium- and heavy-duty diesel-powered trucks in the Portland Metro Region next year. But state action alone will not be enough. The decades-long downward trend in ambient ozone concentrations has leveled off. Despite Oregon's status as a "section 177 state" and its adoption of several California rules, it remains likely that the state will see increases in ozone concentrations due to ongoing climate warming and increased interstate transportation.

Further, if the ozone NAAQS is revised downward, Oregon will be at greater risk of losing its attainment status in several communities.

The Puget Sound Clean Air Agency (PSCAA) in Seattle, WA seeks a technology-forcing standard to reduce NO_x emission from HD trucks due to several ozone-related concerns. Reducing NO_x would help reduce exposure in the near-road communities, which are disproportionately affected by air pollution, and also assist in addressing ozone-impacted areas. More important to PSCAA, however, are the proposed rule's requirements for better longevity of the PM controls' performance under more-varied duty cycles and for longer warranty requirements. Combined, these would help alleviate the expensive breakdowns that reports say are leading truck owners to tamper with the PM controls on trucks used in drayage service, where the typical duty cycle for these older trucks includes low speeds, lots of queueing and short trips that clog diesel particulate filters (DPF) designed for long-haul, high-temperature operation. Over the last decade, EPA has provided millions of dollars in Diesel Emission Reduction Act (DERA) grants nationwide to replace older diesel drayage trucks with newer, 2007+ trucks to reduce their emissions in, and adverse impacts on, port-adjacent communities; the U.S. Department of Transportation has also provided millions in funding under the Congestion Mitigation and Air Quality Improvement (CMAQ) program for the same purpose. PSCAA and local ports received over \$10M of these grant funds and replaced more than 400 pre-2007 drayage trucks with 2007+ and 2010+ trucks, reducing PM_{2.5} by 17 tons per year and NO_x by 390 tons per year. Unfortunately, the sustainability of these and other DERA- and CMAQ-funded emission reductions is in question due to the poor performance of the PM emissions controls under these duty cycles and the risk of tampering to disable the controls as a result. Had the PM standards for 2007+ engines included the more-diverse testing scenarios for meeting emissions standards and the longer warranties that are in EPA's current proposal, the public's investments would have resulted in more durable emission reductions and health benefits. Finally, the PSCAA's former PM_{2.5} nonattainment area includes one of the largest container ports on the West Coast and strong growth in both population and goods movement are anticipated along the West Coast's main north-south interstate and the in the region served by PSCAA. Reducing PM and NO_x from heavy-duty vehicles through controls that do not lose their effectiveness over time or during some duty cycles will be vital to the health of near-roadway and near-port communities and to maintaining the area's attainment status. For all these reasons, technology-forcing regulations and substantial warranties to ensure that compliant emission rates are sustained over more of the useful life of the truck and over the full set of duty cycles will provide significant benefit to the Seattle area.

Historically, the Louisville Metropolitan Statistical Area (MSA) has been challenged with meeting the ozone NAAQS.⁸ The area was designated as Marginal nonattainment for the 2015 ozone NAAQS and has recently been proposed by EPA to be bumped up to Moderate nonattainment since the area failed to meet the standard by the Marginal nonattainment deadline of August 2021. In the meantime, the MSA currently meets the standard (with a 2021 design value of 69 ppb) and a Request for Redesignation is being prepared for submittal to EPA. Even so, EPA's proposed rule provides an important opportunity to address HD truck emissions now and protect public health by reducing emissions of ozone precursors, particulate matter and toxic air pollutants. HD truck emissions are a significant contributor of ozone precursors, NO_x and volatile organic compounds (VOC). The impact of this vehicle sector was apparent recently with respect to meeting transportation conformity Motor Vehicle Emission Budgets; variations in HD truck speeds were found to be critical in staying under the 2020 NO_x budget (established in 2007). As with most medium- and large-size cities in the U.S., the HD trucks in the mobile emissions category are a critical source over which the Louisville Metro Air Pollution Control District (APCD) has little control, so

⁸ <https://www.4cleanair.org/wp-content/uploads/Lville-Ozone-History.jpg>

meaningful federal controls are very important to APCD's attainment planning for ozone and subsequent maintenance of the standard. Onroad heavy-duty diesel vehicles represent the third largest overall NO_x emissions sector in the area (after EGUs and onroad non-diesel light-duty vehicles).⁹ In addition, should EPA revise the PM NAAQS, as EPA staff and CASAC have recommended to the Administrator, reductions in NO_x emissions from HD trucks will be equally important for Louisville's attainment planning for that standard. Although APCD has instituted a voluntary cooperative program, the *Air Quality Action Partners Program*,¹⁰ for businesses to reduce emissions, including mobile source emissions, HD trucks continue to be an ongoing concern, especially from an environmental justice standpoint. Further, a stringent HD truck rule will further reduce risk from emissions of toxic air pollutants not addressed by APCD's Strategic Toxic Air Reduction (STAR) Program. This is especially important since HD truck traffic travels through many fenceline communities and adds to the cumulative exposures of those who live nearby. The strictest version of this rule will benefit Louisville in many ways.

Although Maryland has made significant progress over the past 30 years in improving air quality for its citizens, there is still much work needed to reduce NO_x emissions and meet air quality and public health goals. Maryland has implemented aggressive NO_x reduction measures such as adopting the California light-duty vehicle emission program and pursuing strong reduction measures on stationary sources via the state's Healthy Air Act. Despite these efforts, the majority of Maryland's population resides in areas designated nonattainment for the 70-ppb 2015 ozone NAAQS, and on April 13, 2022, significant portions of Maryland were proposed to be bumped up in nonattainment status. In Maryland, and the Northeast region, medium- and heavy-duty trucks are the second leading contributor of NO_x emissions. To attain the federal ozone standards, emission reductions from HD trucks are needed.

The Yakima Regional Clean Air Agency was designated as nonattainment for PM₁₀ and is now in its second 10-year maintenance plan. The area is now in jeopardy of becoming nonattainment for PM_{2.5}. If EPA revises the PM_{2.5} NAAQS to 30 or 32 micrograms per cubic meter (µ/m³) the area will most likely be designated as nonattainment. Hence, Yakima needs reductions in NO_x – a PM_{2.5} precursor – from HD trucks along area highway corridors to reduce its PM levels.

The Denver Metro/North Front Range needs reductions in emissions from heavy-duty truck traffic to aid in attainment and address environmental justice concerns. Recent source apportionment modeling for 2023 demonstrates that NO_x emissions are driving ozone formation at monitors throughout the region¹¹ and that medium- and heavy-duty truck traffic is a significant contributor to ozone formation.¹²

Reductions in HD truck NO_x emission would be a proactive measure for the Kansas City metropolitan area. While the county and Greater Kansas City metro area would obviously benefit from cleaner heavy-duty trucks, Johnson County, KS does not have data that indicate the need for NO_x reductions specifically from HD trucks. That being said, the last photochemical modelling, a fairly dated data set, showed the Johnson County metro area to be a mix of VOC- and NO_x-limited areas. The Kansas City metro area is in the early stages of developing a local-scale neighborhood monitoring effort, perhaps a network, that may reveal need for these reductions at a neighborhood scale. It is anticipated this monitoring will aid in confirming those suspected EJ communities in the greater metro area and within Johnson County that the regional scale monitoring does not capture. The recent trends in increased

⁹ <https://www.4cleanair.org/wp-content/uploads/Lville-HD-Diesel.jpg>

¹⁰ <https://louisvilleky.gov/government/air-pollution-control-district/air-quality-action-partners-program>

¹¹ [https://raqc.egnyte.com/dl/mQUvLxQUWs/Dashboard_mda8_v_2021.03.05_\(1\).xlsx](https://raqc.egnyte.com/dl/mQUvLxQUWs/Dashboard_mda8_v_2021.03.05_(1).xlsx)

¹² [https://raqc.egnyte.com/dl/VHRCCkBur/Dashboard_LocalAPCA_mda8_v2021.03.17_\(1\).xlsx](https://raqc.egnyte.com/dl/VHRCCkBur/Dashboard_LocalAPCA_mda8_v2021.03.17_(1).xlsx)

industrial warehousing across the Kansas City metro area is anticipated to increase truck traffic and bring it closer to residential neighborhoods, including environmental justice communities. Unfortunately, the area does not have targeted data to show the potential impact of this clearly beneficial program for cleaner heavy-duty trucks. However, the anticipated reductions from the proposed HD truck rule would be preventative and help keep the Kansas City metro area from needing to explore future NO_x reduction strategies. Although the situation is not as dire as in other parts of the country, cleaner heavy-duty trucks would certainly help in improving and maintaining our air quality to be more protective of our residents' health.

The District of Columbia continues to have annual ozone fourth highest values above the 70-ppb 2015 ozone NAAQS, except in 2020 when vehicle congestion in the Washington, DC, area was significantly reduced due to the COVID-19 health emergency. NO_x emissions from highway trucks are major contributors to unhealthy levels of ground-level ozone and fine PM. In fact, modeling conducted by the Ozone Transport Commission¹³ found that onroad diesel vehicles are the second largest contributor to ozone in the District, behind only onroad gasoline vehicles. Onroad diesels were modeled to contribute 16 percent of anthropogenic ozone on exceedance days and throughout the ozone season in the District, which is a higher percentage than all of the District contributes to itself (12 percent on average and 10 percent on exceedance days). NO_x reductions from diesel vehicles are necessary in order for residents of the District to breathe healthy air.

Many key environmental justice communities in Washington are located near high-traffic roadways well used by heavy-duty trucks. One such community is Seattle's Chinatown-International District, which sits next to the interchange of two major interstates (I-5 and I-90). This community is home to Seattle's near-road NO_x monitoring site, which records the highest NO_x concentrations in the region. Monitoring results demonstrate that ambient concentrations of NO and NO₂ are highly correlated with peak traffic patterns on these interstates. As a key precursor to ozone formation, NO_x also impacts air quality in communities with elevated ozone concentrations such as Washington's Tri-Cities. Previous research indicates that onroad vehicles are the dominant source of NO_x in this community, which experiences some of Washington's highest ozone concentrations in the summer months.

For almost 50 years, Connecticut's citizens have suffered the public health and economic impacts of ozone nonattainment. This past year, Connecticut experienced 21 days with unhealthy ozone levels, and on April 13, 2022, EPA proposed to reclassify Fairfield, New Haven and Middlesex Counties as Severe nonattainment with respect to the 2008 ozone NAAQS. The importance of reducing NO_x emissions to address ozone nonattainment is critical for Connecticut. A recent national report, *Asthma Capitals 2021*,¹⁴ ranked New Haven (#5) and Hartford (#17) among the 100 largest U.S. cities where it is most challenging to live with asthma. The Connecticut Department of Energy and Environmental Protection recently issued an assessment of onroad medium- and heavy-duty vehicle emissions,¹⁵ which included the finding that in 2020 onroad HD vehicles accounted for 36 percent of total onroad NO_x emissions but are projected to increase to 57 percent of total onroad NO_x emissions by 2045 without the adoption of new emission standards. Connecticut urgently needs stringent, technology-forcing federal emission standards for HD trucks now.

¹³ <https://otcair.org/upload/Documents/Reports/OTC%20MANE-VU%202011%20Based%20Modeling%20Platform%20Support%20Document%20October%202018%20-%20Final.pdf>

¹⁴ <https://www.aafa.org/media/3040/aafa-2021-asthma-capitals-report.pdf>

¹⁵ https://portal.ct.gov/-/media/DEEP/air/mobile/MHD/MHD_Whitepaper_030822.pdf

California's population closely overlaps its air quality challenges driven in large part by transportation emissions that often differentially affect the state's most vulnerable communities. Redoubled efforts to address the air quality needs of every California resident have seen focused Community Air Protection programs targeting the stationary and mobile sources impacting these communities. The communities adjacent to railyards, ports, warehouses and freight corridors experience heavy truck traffic characterized by idling, driving slowly and frequent stops – conditions under which today's HD trucks do not control NO_x emissions effectively. California has spent \$8 billion to date on technology advancement and early market development of cleaner and zero emission vehicles (ZEVs). New vehicles sold in California are being brought under stringent near-term tailpipe and zero emission requirements while fleet rules like the Truck and Bus regulation are driving accelerated turnover of the oldest remaining trucks by the end of this year. Despite these aggressive and sustained efforts to achieve emission reductions, a similar amount of heavy-duty truck emissions in California comes from trucks initially sold under federal jurisdiction. The necessity of dealing with “both halves” of heavy-duty truck emissions (under California's jurisdiction and under federal jurisdiction) is paramount as outlined in California's EPA-approved State Implementation Plans and underlying the state Mobile Source Strategy and local Air Quality Management Plans. It is crucial that EPA's federal HD truck standards drastically cut truck emissions, including during low load conditions, to reduce adverse health impacts and improve air quality throughout the state, especially in those areas that are already disproportionately impacted by truck emissions.

In 2016, state and local air agencies from around the country joined together to petition EPA to adopt “ultra-low NO_x” emission standards for highway heavy-duty trucks and engines. Petitioners, who based their case on their need for the related NO_x reductions, included the South Coast (CA) Air Quality Management District; Pima County (AZ) Department of Environmental Quality; Bay Area (CA) Air Quality Management District; Connecticut Department of Energy and Environmental Protection; Delaware Department of Natural Resources and Environmental Control, Division of Air Quality; Washoe County (NV) Health District, Air Quality Management; New Hampshire Department of Environmental Services; New York City (NY) Department of Environmental Protection; Akron (OH) Regional Air Quality Management District; Washington State Department of Ecology; Puget Sound (WA) Clean Air Agency; Rhode Island Department of Environmental Management; Massachusetts Department of Environmental Protection; Vermont Department of Environmental Conservation; New York State Department of Environmental Conservation; and Sacramento (CA) Metropolitan Air Quality Management District.

NACAA's Recommendations Related to the NO_x Portion of the Proposed Rule

When EPA finalizes a HD truck rule it will mark the first time since 2001 that EPA has taken action to cut harmful NO_x emissions from these vehicles. There is a clear and compelling public health need for much tighter restrictions on HD truck NO_x emissions. In the past 20 years, technical capacity to reduce these emissions has flourished and tremendous experience has been gained; the opportunity to require and achieve deeper reductions in NO_x emissions across the many operations is enormous.

In August 24, 2020, written comments to CARB,¹⁶ NACAA supported the state's proposed Heavy-Duty Omnibus Regulation, which was adopted on August 27, 2020, and ultimately finalized in December 2021, after an extensive public process that was preceded by several years of informal stakeholder input.¹⁷ The research supporting CARB's Omnibus – including research jointly funded by EPA and the California Air

¹⁶ https://www.4cleanair.org/wp-content/uploads/Documents/NACAA_Comments-CARB_HD_NOx_Omnibus_Proposal-082420.pdf

¹⁷ <https://ww2.arb.ca.gov/rulemaking/2020/hdomnibuslownox>

Resources Board and conducted by the Southwest Research Institute (SwRI) – is rigorous and the data and findings solidly supportive of the Omnibus standards. Structurally, EPA's Proposed Option 1 numeric standards are similar to the Omnibus. However, despite the affirmative data and the unyielding nationwide public health need, the agency's Proposed Option 1 falls far short in some very critical ways, including by failing to align with the Omnibus' on a number of key provisions, including, among others, on the heavy HD NO_x emission standard and interim useful life (IUL) in 2027, and by proposing important program elements that lack the stringency of the Omnibus and/or that severely erode the benefits of the numerical standards. Moreover, in some cases, which we discuss below, research and findings that have emerged since adoption of the Omnibus support even more stringent standards and approaches. EPA's Proposed Option 2 conclusively misses the mark and leaves on the table critical tons necessary for attainment, maintenance and the protection of underserved communities while being, by EPA's own analysis, less cost effective. Proposed Option 2 is inherently unacceptable in light of the CAA mandate for maximum feasible stringency in HD standard setting, as evidenced by EPA's proposal of Option 1 as a viable option.

Finally, in his August 5, 2021, Executive Order (EO), "Strengthening American Leadership in Clean Cars and Trucks,"¹⁸ President Biden, in calling upon EPA to develop this heavy-duty truck rule, states, "Given the significant expertise and historical leadership demonstrated by the State of California with respect to establishing emissions standards for light-, medium-, and heavy-duty vehicles, the Administrator of the EPA shall coordinate the agency's activities pursuant to sections 2 through 4 of this order [including establishing NO_x standards for heavy-duty engines and vehicles for 2027 and later] as appropriate and consistent with applicable law, with the State of California as well as other States that are leading the way in reducing vehicle emissions, including by adopting California's standards."

We urge EPA to pursue this EO-directed collaboration and coordination with the states, openly and in a manner that will meaningfully contribute to the agency's ultimate decision on the final rule. In the Multi-State Medium- and Heavy-Duty Zero Emissions Vehicle Memorandum of Understanding (MOU) 17 states and the District of Columbia acknowledge the "introduction of low-NO_x heavy duty trucks" as essential for reducing harmful emissions of NO_x, PM and toxic air contaminants that adversely affect public health.¹⁹ This MOU establishes a ZEV sales goal under which at least 30 percent of all medium HD trucks sold in the MOU states by 2030 would be ZEVs. Five states have already individually exercised their right of self-determination under section 177 of the Clean Air Act and joined California with adoption of heavy-duty new vehicle policies.^{20,21,22,23,24,25} A sixth state has passed enabling legislation²⁶ and others are considering similar bills or have taken public process steps related to regulatory development. States are also demonstrating non-regulatory leadership by taking collaborative action through efforts such as the Regional Electric Vehicle Midwest MOU with five signatories.²⁷ We urge EPA to actively and collaboratively leverage

¹⁸ <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/08/05/executive-order-on-strengthening-american-leadership-in-clean-cars-and-trucks/>

¹⁹ <https://www.nescaum.org/documents/mhdv-zev-mou-20220329.pdf/>

²⁰ <https://www.mass.gov/guides/massachusetts-low-emission-vehicle-lev-program>

²¹ https://www.nj.gov/dep/rules/adoptions/adopt_20211220a.pdf

²² <https://www.dec.ny.gov/regulations/26402.html>

²³ <https://www.oregon.gov/deq/rulemaking/Pages/ctr2021.aspx>

²⁴ <https://ecology.wa.gov/Air-Climate/Climate-change/Reducing-greenhouse-gases/ZEV>

²⁵ <https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC173-423-400Jan18>

²⁶ <https://portal.ct.gov/Office-of-the-Governor/News/Press-Releases/2022/04-2022/Governor-Lamont-Applauds-Final-Passage-of-Climate-Legislation-That-Includes-New-Emissions-Standards>

²⁷ https://www.michigan.gov/-/media/Project/Websites/leo/REV_Midwest_MOU_master.pdf?rev=6dd781b5a4eb4551b3b3a5b875d67fb9

the tremendous expertise, interest and commitment of states toward the most effective final rule in line with these efforts.

HD Engine NO_x Standards, Useful Life Periods and Warranty Periods

EPA includes two options in the proposal, one more stringent than the other. The agency notes that Proposed Option 1, the more stringent of the two, would come with greater public health and environmental benefits; nonetheless, as proposed, this option is insufficient. Proposed Option 2 is wholly unacceptable. NACAA supports modifications that would strengthen the overall stringency of Proposed Option 1 by aligning it with the technology-forcing mandate of the CAA.

When setting federal NO_x emission standards for HD trucks, EPA is required, under CAA section 202(a)(3)(A), to reflect “the *greatest* degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the model year to which such standards apply, giving appropriate consideration to cost, energy and safety factors associated with the application of such technology.” [emphasis added]

Just because a regulated entity is not already producing, or committing to produce, engines incorporating a particular technology does not mean that the technology does not exist or will not exist by 2027 or that standards based on that technology are not achievable by 2027 – which is over four years from today. EPA must fully comply with this statutory technology-forcing mandate. However, the agency utterly fails to do so in Proposed Option 2 and even in Proposed Option 1.

Although Proposed Option 1 comes closer to meeting this requirement than Proposed Option 2, Proposed Option 1 does not meet the statutory bar. Falling short is insupportable given that there are emission controls that are technologically feasible, commercially available and justified based on benefits relative to costs not only for meeting the Proposed Option 1 emission standards and deadlines, but also for meeting a cleaner 2027 standard – 20 mg/hp-hr – for heavy HD engines, and without the need for the excessive and indefensible flexibilities EPA proposes or on which the agency seeks comment (which NACAA discusses below) and which would seriously erode any emission standards finalized by EPA. Additionally, there has been more than adequate time to prepare for a substantially more rigorous federal standard; EPA and stakeholders have been aware for years that such a standard was necessary and forthcoming. Manufacturers must prepare for these MY 2027 standards across a growing number of states anyway. EPA should be leveraging the early experience with the already-final Omnibus 2024-2026 phase-in as well as the finalized 2027 Omnibus standards to the benefit of the final rule rather than ignoring the engineering and commercialization progress made in order to comply with the Omnibus in California and in other states that have adopted it.

EPA should revise Proposed Option 1 to pull forward to 2027 the 20 mg/hp-hr NO_x emission standard for all classes with an IUL standard of 435,000 miles for heavy HD engines.

Importantly, as EPA reports in the NPRM, Proposed Option 1 will result in substantially superior emission, health and monetized benefits than Proposed Option 2. The agency also states, “Given the analysis we present in this proposal, we currently believe that proposed Option 1 may be a more appropriate level of stringency as it would result in a greater level of achievable emission reduction for the model years proposed, which is consistent with EPA’s statutory authority under Clean Air Act section

202(a)(3).²⁸ While NACAA appreciates and agrees with EPA's recognition that the greater stringency of Proposed Option 1 would result in "a greater level of achievable emission reduction," we challenge the agency's statement that this "is consistent with EPA's statutory authority under Clean Air Act section 202(a)(3)." The CAA requires not a greater level of achievable emission reduction but "the *greatest* degree of emission reduction achievable." [emphasis added]

Proposed Option 2, or anything remotely similar, is entirely unacceptable and must be rejected. As discussed above, it has been demonstrated that significantly more rigorous NO_x emission standards and other program requirements are feasible and cost effective for 2027 and beyond. The standards in Proposed Option 2 require virtually no effort on the part of manufacturers beyond negligible calibration adjustments and minor hardware modification – nowhere near the technology-forcing standards required by CAA section 202(a)(3)(A). Further, EPA acknowledges in the proposal that Option 2 would deliver inferior emission, health and cost benefits, thus sacrificing emission reductions and health protections sorely needed in areas struggling to attain or maintain health-based NAAQS and overburdened communities. In addition, the flexibilities EPA proposes to offer, or on which it seeks comment, that are excessive and indefensible for Proposed Option 1 are even more unjustified for Proposed Option 2.

Standards for Low-Load and Idle Duty Cycles

NACAA supports inclusion in the final rule of performance requirements to ensure achievement of emission standards across all duty cycles, including idle and low load.

EPA seeks comment on whether to include an idle standard. In the Omnibus, California adopted a mandatory idle standard of 5 grams/hour (g/hr). Since then, SwRI and Achates Power have demonstrated that heavy-duty trucks can achieve and continuously sustain significantly lower idle standards – all below 1 g/hr – over an indefinite period of time. This is an important development for HD trucks, which routinely idle for long periods of times. Achates, for example, has field data from actual truck operation in 40° F weather showing 0.15 g/hr average NO_x at idle. EPA should finalize a mandatory idle NO_x standard for MY 2027-2030 engines in the range of 0.5 to 1 g/hr.

Due to the high level of heavy-duty engine NO_x emissions that come from operation at low load we support EPA's proposal to adopt a low-load test that would provide a procedure for assessing emissions at low loads and allow for better control of NO_x emissions in urban driving environments. For MY 2027-2030 engines, EPA has proposed a low-load cycle (LLC) standard of 90 mg/hp-hr, which is the same as that in the Omnibus. However, several recent research initiatives – including EPA's Low NO_x Stage 3 Research Program conducted by SwRI²⁹ and a program conducted by Achates – provide clear evidence that a tighter standard is feasible. Based on this research, EPA should evaluate how much lower the LLC standard can be and, in the final rule, improve upon the proposed standard.

SCR Inducement

NACAA does not support EPA's proposed changes to the in-use strategies designed to ensure that operators maintain their NO_x emission control equipment.

²⁸ *Supra* note 1, at 17,440

²⁹ <https://www.regulations.gov/document/EPA-HQ-OAR-2019-0055-1082>

EPA proposes changes that would significantly weaken “inducements” for maintaining Selective Catalytic Reduction (SCR). Since SCR is the most effective means of reducing NO_x emissions from diesel engines, when these devices are malfunctioning NO_x emissions soar. Such unacceptable NO_x increases can occur from a combination of vehicle neglect, part failures and malicious tampering with diesel exhaust fluid (DEF), hardware and software. While the longer warranties proposed and discussed below should provide motivation to resolve design defects and inferior parts, the issues of passive neglect or active tampering require an intentional and diligent approach in the inducement program to ensure adverse emissions impacts are minimized.

EPA states in the NPRM that it has received many complaints about inducements related to SCR and the use of DEF, the majority of which express concerns “that despite the use of high-quality DEF and in the absence of tampering, in-use vehicles are experiencing inducements for reasons outside of the operator’s control.” It is unclear how many of the experiences leading to these complaints are specifically related to SCR inducements versus general engine protection derating that operators can also experience. Among the cited reasons outside the operator’s control are faulty sensors and software “glitches.” Both of these would be warrantable issues that should receive increased manufacturer attention under the significantly longer warranty periods advocated here. Simply ignoring these design issues would be deeply problematic and fundamentally undermine the effectiveness of the NO_x program.

EPA reasons that relaxing inducements would more effectively result in truck operators properly maintaining SCR and proposes that for high-speed vehicles the initial inducement would be 65 miles per hour (mph) and the final inducement no lower than 50 mph (up from the current final inducement of 5 mph). For low-speed vehicles, the proposed initial inducement is 50 mph and the final inducement no lower than 35 mph. Such inducements are too lax to encourage a truck operator to act in a timely fashion to fix a problem and should not be finalized.

Further, the proposed derate schedules would allow up to 60 hours of operation before the final inducement takes effect. That would be 60 hours of driving, without emission controls, through vulnerable communities, past schools and recreational areas and near homes and small-business and community hubs. This should not be finalized either.

If EPA believes changes to the inducement strategies are technologically necessary, NACAA offers the following recommendations. First, EPA’s proposed inducements, which would dramatically increase maximum speeds allowed under the derate schedules, should be revised considerably downward. Second, EPA should amend the definition of a low-speed vehicle from a 20-mph threshold to a 30-mph threshold so that these vehicles would be subject to a more appropriate low-speed vehicle derate schedule. Third, EPA should finalize derate schedules with less time between stages to reduce the total allowed hours of operation before the final inducement occurs. Finally, rather than just relaxing inducements and potentially allowing a truck with improperly maintained SCR to continue operating with nominal constraint, EPA should put in place measures that will hold manufacturers accountable for addressing the durability and sensor issues about which the agency, dealerships and manufacturers have received complaints.

Durability Demonstration Program

NACAA does not support the proposed new option for durability demonstration.

EPA proposes a new option for determining a deterioration factor (DF) that would significantly weaken vehicle durability testing requirements. Under this new DF demonstration option, “to limit the burden of generating a DF over the proposed lengthened useful life periods,” EPA would allow manufacturers to conduct dynamometer testing of an engine and aftertreatment system to a mileage less than regulatory useful life. Manufacturers would then bench age only the aftertreatment system to regulatory useful life, put it back on an engine representing the engine family, run the combined engine and bench-aged aftertreatment system for at least 100 hours and then collect emissions data to determine the DF.

EPA should discard this proposed option, which does not adequately simulate engine aging and, because the focus is on aftertreatment bench aging without consideration of engine-related component durability, could allow the certification of engines that do not meet the engine standards. EPA should continue to include both significant engine operation and accelerated aftertreatment aging in the DF determination, as is required by the Omnibus, and work with California to align the programs.

Interim In-Use Emission Standards

NACAA does not support finalizing any interim in-use emission standards.

EPA requests comment on a flexibility to provide manufacturers with higher numeric interim in-use standards for verification testing for heavy HD trucks. In particular, when in-use testing is conducted to verify that an in-use heavy HD truck meets applicable duty cycle or off-cycle emission standards throughout useful life, the vehicle would be held to a much less stringent standard from MY 2027 through MY 2033 (the “interim period”). According to the scenario on which EPA seeks comment, the interim in-use standard could be up to 100 percent of (or double) the actual standard. EPA says the reason for this provision would be to allow manufacturers time to gain experience with the emission control technologies while they are operating in the field. EPA also says that depending on what it observes as part of its engine demonstration study it may consider adopting even more lenient interim in-use standards in the final rule.

Under this scheme, it appears EPA would also forfeit its own authority to verify manufacturer-provided data as even EPA’s testing of new Selective Enforcement Audit engines or the manufacturer’s certification engine itself could not be held to the regular emissions standard. Beyond the likely emissions consequences of not pursuing corrective action on engines emitting at up to twice the standard, such so-called in-use standards set up a perverse motivation for manufacturers, who would be on notice that their certification submissions effectively could not be audited. This is not theoretical as there is a recent incident of fraudulent certification submissions by a heavy-duty engine manufacturer, resulting in loss of engine customers, truck and construction equipment manufacturing jobs and even permanent plant closure.^{30,31,32,33}

³⁰ <https://www.metronews.com/2020/12/28/hino-engine-certification-issues-the-reason-for-production-suspension-in-wood-county-through-much-of-2021/>

³¹ <https://www.equipmentworld.com/equipment/article/15065118/yanmar-isuzu-to-supply-kobelco-engines-in-the-us>

³² <https://www.kobelcocm-global.com/news/2022/220225.html>

³³ <https://www.reuters.com/world/asia-pacific/japan-revoke-hinos-engine-certification-over-false-emissions-data-2022-03-18/>

EPA should not finalize any interim in-use standards. Such “flexibility” is inappropriate and would weaken the rule’s effectiveness in reducing emissions and protecting public health. Gaining experience with emission control technologies should be addressed by manufacturers during product development, not after vehicles are sold.

Production Volume Allowances

NACAA does not support the inclusion of manufacturer production volume allowances for specialty vocational products or any other engine categories.

Another flexibility on which EPA seeks comment is production volume allowances for MY 2027 through 2029 medium HD engines and heavy HD engines. Based on EPA’s description of this option manufacturers would be allowed to continue to certify up to 5 percent of their total production volume of medium and heavy HD diesel engines in each of MYs 2027 through 2029 to “pre-MY 2027 engine provisions”; that is, these engines would be exempt from the new emission standards and allowed to continue to comply with the 21-year-old 200-mg NO_x standard.

EPA says this exemption from the new emission standards for the first three MYs “may” be necessary to allow manufacturers lead time and flexibility to redesign some low sales volume specialty vocational products to accommodate the technologies needed to meet the new emission standards. EPA offers as its only example fire trucks, for which, the agency contends, not being subject to the new emission standards during the first three MYs would be “appropriate” because of potential challenges to engine, chassis and body manufacturers of packaging new emission controls.

Not only is this flexibility unwarranted, it would undermine the effectiveness of the rule to reduce emissions and protect public health. Allowing 5 percent of a manufacturers’ total production volume of HD engines to meet a 200-mg/hp-hr NO_x standard means that one in every 20 engines would be allowed to emit NO_x at a level that is an order of magnitude higher than the standard NACAA recommends for MYs 2027-2029, with excess emissions of 180 mg/hp-hr, and to do so with no requirement for mitigating the increased emissions. The result would be an inventory increase of up to 45 percent for each applicable model year’s production from a manufacturer with products in a single useful life and power rating category. However the excess NO_x inventory could be even greater if a manufacturer elects to satisfy the 95 percent of production with low-rated power and short-useful-life engines while using the 5-percent allowance for engines with a much longer useful life and higher rated power output (such as the large engines that are typically used in EPA’s own example). Useful life can vary by a factor of three or four and power rating by a factor of two or three, depending on the details of the engine models involved, but could multiply the excess NO_x inventory beyond the 45-percent simplest case above.

The agency also asks whether an exemption from the new emission standards for an interim period should be “limited to specific vocational vehicle regulatory subcategories and the engines used in them” or allowed for others as well.

The only fair evaluation of the emissions impact of this “flexibility” is one based on the assumption that manufacturers will use their full 5-percent allowance and apply the allowance to an engine mix of the largest, longest-lived engines. Assuming actual sales will be less than the allowed 5 percent would be highly imprudent and imperil the NO_x reduction program.

EPA should not exempt any engines from complying with the adopted new emission standards for any amount of time and, therefore, should not adopt a production volume allowance option.

Emission Credits and Averaging, Banking and Trading

NACAA does not support the inclusion of a NO_x emission credit or Averaging, Banking and Trading (ABT) scheme.

EPA acknowledges in the NPRM that its proposed NO_x standards are feasible without the use of credits. Even so, the agency proposes a NO_x credit-generation scheme and ABT that would allow manufacturers to use credits generated from producing engines with emission levels below the standards to produce engines with emission levels above the standards. With areas all across the country seeking every possible ounce of NO_x reduction in order to protect the health of those who live and work in their jurisdictions, including those in overburdened communities where neighborhood truck traffic is disproportionately high, the concept of turning additional NO_x emission reductions beyond those required by the new standards into currency to be used to negate those reductions seems senseless.

This approach would also open the possibility of the federal program issuing to manufacturers large NO_x credits against the current 200-mg/hp-hr federal standard for engines sold in Omnibus jurisdictions at the 50-mg standard. This would allow manufacturers to continue making dirtier engines at the expense of the emission reductions intended to occur from the states' Omnibus programs and would effectively float the standard higher, increasing emissions across engines in all states.

Although NACAA supports efforts to encourage and expand the deployment of ZEVs, we do not support efforts that come at the expense of NO_x reductions in the rule. EPA should not include in the final rule provisions for generating NO_x credits or an ABT program that will, in any way, deplete or negate important NO_x emission reductions achieved through implementation of new emission standards, especially when the standards are feasible without the use of credits.

EPA should, however, finalize its proposal to end the ABT program for PM and hydrocarbons for MYs 2027 and later engines.

EPA also seeks comment on a proposed Family Emission Limit (FEL) cap of 150 mg/hp-hr in 2027, which the agency says is consistent with the average NO_x emission levels achieved by recently certified diesel engines. An FEL cap being achieved today is far too high for implementation more than four years from now and, at 150 mg, is inconsistent with the 50-mg/hp-hr standards applicable to engines that will be in production in 2026 to comply with the Omnibus.

Onboard Diagnostics

EPA's existing onboard diagnostics (OBD) requirements, adopted in 2009, allow manufacturers to demonstrate how the OBD system they designed to comply with California's OBD requirements also complies with the intent of EPA's OBD requirements. (EPA maintains separate OBD regulations but manufacturers currently seek approval from California for OBD systems in engine families applying for 50-state certification and then use that approval to demonstrate compliance with EPA's requirements.) In this rulemaking, EPA proposes to update its OBD regulations by incorporating by reference the California Air Resources Board's (CARB) 2019 OBD regulations "as the starting point for our updated OBD regulations"

and then “exclude or revise certain CARB provisions that we believe are not appropriate for a federal program” and “include additional elements to improve the usefulness of OBD systems for users.”

EPA should update its OBD requirements but should incorporate by reference CARB’s current program without omission so there is alignment between the federal and California programs.

Anti-Tampering

Effective provisions to detect and enforce against tampering with vehicle emission controls are key to ensuring long-term in-use emissions performance. Recognizing the complexity of engine control modules (ECM) and the sophistication of tampering methods, EPA’s proposal to prevent ECM tampering is designed to provide manufacturers with flexibility to quickly respond to new or emerging threats and vulnerabilities. Under the proposal, manufacturers would be required to include in their certification application a description of all adjustable parameters, including electronically controlled parameters, as well as the approach or industry technical standards used to prevent unauthorized access to a vehicle’s ECM; ensure that calibration values, software and diagnostic features cannot be modified or disabled; and respond to repeated unauthorized attempts to reprogram or tamper. Manufacturers would also be required to attest that they are using sufficient measures to secure the ECM, thereby limiting adjustment or alteration beyond those used in the certified configuration. EPA would retain the right to evaluate a manufacturer’s decisions regarding the measures used to prevent access to and tampering with the ECM.

EPA should finalize these proposed anti-tampering provisions.

PM Anti-Backsliding

NACAA also notes the potent toxicity and impact of diesel PM and welcomes EPA’s proposal of a PM anti-backsliding standard, based on use of a DPF, of 5 mg/hp-hr, down from the current level of 10 mg/hp-hr. EPA should finalize this standard.

NACAA’s Recommendations Related to the HD Truck Greenhouse Gas Emissions Portion of the Proposed Rule

In addition to the NO_x portion of this NPRM, EPA includes proposed “targeted updates” to the existing Heavy-Duty Greenhouse Gas Emissions Phase 2 program. The agency proposes to adjust the HD Phase 2 vehicle greenhouse gas (GHG) emission standards by sales-weighting the projected heavy-duty electric vehicle (EV) production levels of school buses, transit buses, commercial delivery trucks and short-haul tractors – four vehicle types EPA expects will have the highest EV sales of all HD vehicle types between now and 2030 – and by lowering the applicable emission standards in MY 2027 accordingly. EPA says that these updates are appropriate given the growing HD EV market and, considering other factors, including lead time and cost, would not fundamentally change the HD GHG Phase 2 program as a whole.

For the past seven years, NACAA has urged EPA to develop and adopt a strong, technology-forcing rule to reduce NO_x emissions from HD trucks. We welcomed President Biden’s August 5, 2021, EO calling upon EPA to propose in January 2022 and finalize in December 2022 NO_x standards for HD trucks for MYs 2027 through at least MY 2030 and begin work on a rule under the CAA, to be finalized by July

2024, to establish new GHG emission standards for HD engines to take effect as soon as MY 2030. In that same EO, the President called on EPA to consider the role zero-emission heavy-duty vehicles might have in reducing emissions from certain market segments and consider updating the existing GHG emissions standards for heavy-duty engines and vehicles beginning with model year 2027 and extending through and including at least model year 2029.

NACAA's expressed preference was for EPA to reserve action on reducing GHG emissions from HD trucks for the July 2024 final rule so that EPA could focus on the immediate need for overdue HD NO_x reductions and a final rule by not later than December 2022. While we support reducing HD truck GHG emissions, we do not want anything to impede the timely adoption of a final HD truck NO_x rule.

Although NACAA's highest priority with this rule continues to be NO_x reductions, we recognize that EPA's proposed updates can provide benefits in the form of increased fuel efficiency and reduced fuel consumption and pave the way for a more ambitious rule to be implemented as soon as MY 2030. Provided adopting EPA's proposed "targeted updates" to the Phase 2 truck provisions in no way slows the finalization of the NO_x portion of the rule, impedes adoption of the NO_x portion of the rule this year or undermines the rigor of the NO_x program that NACAA recommends, NACAA supports the proposed targeted GHG updates.

Conclusion

On behalf of NACAA, we appreciate the opportunity to comment on this important and long-awaited proposal. We urge EPA to work thoughtfully and quickly to issue a final rule this year – incorporating NACAA's recommendations – so that NO_x emission standards and related program requirements apply beginning with MY 2027.

The gravity of timely compliance with the NAAQS requires this federal action. The protection of public health and welfare, particularly in overburdened communities across the nation, demands it.

If you have questions, please contact either of us or Nancy Kruger, Deputy Director of NACAA.

Sincerely,



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