



October 26, 2021

The Honorable Michael Regan, Administrator
U.S. Environmental Protection Agency
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Cc: Joseph Goffman, Acting Assistant Administrator, Office of Air and Radiation (OAR)
Sarah Dunham, Director, Office of Transportation and Air Quality (OTAQ)
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Bill Charmley, Director Assessment and Standards Division, Office of Transportation and Air Quality (OTAQ)
Matthew Tejada, Director, Office of Environmental Justice

Dear Mr. Regan:

The Moving Forward Network (MFN)¹ writes the following to the U.S. Environmental Protection Agency (EPA) to present the need for EPA to prioritize environmental justice in freight impacted communities by aggressively advancing zero-emission technology and solutions across the freight sector. We appreciate the EPA's commitment to meet with EJ and grassroot organizations and communities. However, this letter highlights the critical need for immediate actions to be taken in conjunction with these meetings. With people's health and environment on the line, the EPA must move a Zero Emissions agenda, which crosses the freight sector and prioritizes environmental justice. The global freight transportation system is one of the largest sources of pollution across the country. Freight transportation relies on thousands of diesel trucks, locomotives, cargo handling equipment, and ships, aimed at moving huge volumes of goods from places of manufacturing to distribution e.g. warehouses, to places of consumption, i.e. the market, small business, etc. Presently this system contributes to significant amounts of localized pollution in areas that

¹ The Moving Forward Network (MFN) is a national network of organizations that center grassroots, frontline knowledge, expertise, and engagement with the communities across the US that bear negative impacts of the global freight transportation system. In collaboration with allies and partners, MFN identifies local solutions that call for community, industry, labor, government, and political action that advances equity, environmental justice, and a zero-emissions focused just transition. MFN's vision is to see that negatively burdened communities become healthy, sustainable places by reducing and ultimately eliminating the negative impacts of that system. MFN is deeply committed to advancing environmental justice, equity, economic justice, and a just transition.

are already overburdened by other sources of pollution. All of which generates a significant amount of pollution that contributes to an ongoing health crisis in environmental justice communities and the climate crisis across the globe.

Introduction

Over a decade ago, EPA recognized that more than 13 million people (3.5 million of whom are children) live near major marine and inland ports or rail yards, and that these individuals are disproportionately low-income communities of color and susceptible to increased health risks from air pollution.² These figures do not include the approximately 45 million individuals who live within 300 feet of a highway³ or close to large distribution centers where diesel emission sources congregate. These problems persist today with a rapidly growing freight system, an expanding network of warehouses and last-mile logistics centers, and constantly increasing throughput volumes at our ports and railyards. The result is that, even as technology has allowed for reducing emissions from trucks and other freight-moving equipment, increases in activity have outpaced the gains achieved by EPA rules that have not been amended in over a decade.

President Biden's January 27, 2021 Executive Order on Tackling Climate Change at Home and Abroad directs agencies to "make achieving environmental justice part of their missions by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts." To fulfill that mission, EPA must include reducing freight-related air pollution as a top priority for the Agency.

This letter outlines specific actions EPA must advance to finally provide relief to freight-impacted communities. These policies, rules, programs, outlined below must include guaranteed emission reductions in environmental justice communities. In addition, the Moving Forward Network looks forward to working with EPA to facilitate collaboration with community partners as a key part of this effort. EPA should foster action oriented, regular meetings in each region with environmental justice communities adversely affected by freight-related air pollution, and identify short- and long-term goals/policies/programs that address the unique needs of each community while aiming to clean-up the freight system as a whole.

I. Federal Rules

EPA must prioritize using its rulemaking authority under the Clean Air Act to address freight-related sources of pollution. Rules send the necessary signal to the market that a transition to zero-emissions must occur. Yet many of these sources are protected from state and local controls by federal preemption. EPA regulations are thus critical in advancing technology and protecting overburdened communities. Moreover, many of EPA's rules on the freight sector have not been amended for decades, and the most

² Office of Transportation and Air Quality (OTAQ), U.S. Environmental Protection Agency (EPA), *Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression Ignition Engines Less than 30 Liters Per Cylinder*, EPA420, pp. 2-57 (March 2008). Available at: <http://www.regulations.gov/#!documentDetail:D=EPAHQ-OAR-2003-0190-0938>.

³ See Office of Transportation and Air Quality (OTAQ), EPA, *Near Roadway Air Pollution and Health* (May 22, 2015). Available at: <http://www.epa.gov/otaq/nearroadway.htm>.

stringent standards imposed by those rules no longer require the emission reductions that could be achieved using modern technologies. EPA must quickly move forward with new federal rules for all of the following, and at every regulatory opportunity, EPA must include mandates that rapidly advance zero-emission solutions.

A. Heavy-Duty Truck Standards

Advancements in zero-emission truck technology are enabling more dramatic progress to tackle pollution. We understand that EPA has traditionally considered zero-emission technologies as part of the solution for reducing greenhouse gas emissions, but EPA must also incorporate these feasible controls in strategies for reducing all emissions, including criteria pollutants like nitrogen oxides and particulate matter. The rapid development of zero-emission technologies warrants a fresh approach to overhauling the fossil-fueled freight system. It is no longer adequate to focus solely on incrementally cleaning combustion vehicles. Thanks to improving zero-emission technology, pollution from trucks can not only be lowered but eliminated. Zero-emission trucks are commercially available,⁴ economically compelling,⁵ and the single most effective solution for reducing freight emissions.⁶ Advances in this technology are outpacing even the best estimates from just a few years ago—cost and technology assessments of battery-electric trucks from 2018 are already becoming obsolete.⁷ The barriers that once relegated zero-emission trucks to be considered a niche solution are shrinking, allowing zero-emission trucks to become the centerpiece in our battle against air and climate pollution. At every regulatory opportunity, EPA must include policies that rapidly advance zero-emissions not just in certain market segments but for the entire truck sector.

EPA's forthcoming NOx standards for heavy-duty trucks starting in MY2027 is the first unmissable opportunity to drive this transition. As part of that upcoming rulemaking, President Biden's August 5, 2021 Executive Order on Strengthening American Leadership in Clean Cars and Trucks directs EPA to "consider[] the role that zero-emission heavy-duty vehicles might have in reducing emissions from certain market segments."⁸ Now is the time to hasten the transition to zero-emission trucks and buses, and EPA has one of the best opportunities to do so by setting stringent emissions standards that include both limits on NOx emissions and escalating zero-emission sales mandates that provide a clear signal for manufacturers to chart a path toward zero-emissions. At a minimum, the federal government should require that all new trucks must have zero emissions beginning in 2035, with intermediate targets before

⁴ See MJ Bradley & Associates, Medium- & Heavy-Duty Vehicles (July 2021)

<http://blogs.edf.org/climate411/files/2021/08/EDFMHDVEVFeasibilityReport22jul21.pdf>.

⁵ See Amol Phadke et al, Why Regional and Long-Haul Trucks are Primed for Electrification Now (Mar. 2021)

https://eta-publications.lbl.gov/sites/default/files/updated_5_final_ehdv_report_033121.pdf.

⁶ OECD, International Transport Forum, Transport Outlook - 2019, at 157

https://doi.org/10.1787/transp_outlook-en-2019-en stating "[s]caling up decarbonisation measures for road freight transport that have already been tested and are comparatively easy to introduce is one of the most immediate actions required."

⁷ See, e.g. estimates from the ICCT, which have already been surpassed several years ahead of schedule

https://theicct.org/sites/default/files/publications/Zero-emission-freight-trucks_ICCT-white-paper_26092017_vF.pdf

⁸

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

then. EPA needs to ensure that the new NO_x standard is implemented across the country and that the rule ramps up zero-emission technology requirements for all types of trucks and buses.

First and foremost we cannot afford to delay. EPA must complete the NO_x and GHG rules in 2022. Further, EPA's medium- and heavy-duty vehicle emission standards must be additive to and not preempt state policies. Additional policies should be adopted as soon as possible to accelerate the retirement of all combustion trucks on or before 2045, and to quickly build out the infrastructure and operational environment to facilitate this transition without impacting drivers in environmental justice communities. Many of these policies fall under EPA's purview, however some, like prioritizing the conversion of the oldest trucks on the road, which are often operated by misclassified drivers, may require exercise of President Biden's whole of government/interagency approach.

In setting these standards across the freight sector, EPA must consider environmental justice impacts and priorities "from source to tailpipe to grave."⁹ This means thinking through the unintended consequences of regulatory design. For example, regulations must avoid promoting false solutions, (e.g., carbon trading and/or "greenwashed" energy that comes from non-renewable and heavy-polluting sources such as natural gas, biomass, etc.), that will only lead to further burdening our environmental justice communities. Standards that focus solely on reducing or eliminating carbon, rather than eliminating all combustion emissions, can allow these false solutions to continue through offsets and other accounting games that concentrate emissions in the most impacted communities. At the same time, transportation electrification must be accompanied by standards and regulations around renewable electricity generation, i.e. wind and solar,¹⁰ that will not further burden environmental justice communities. Decisions on siting the new electricity infrastructure must be coordinated with environmental justice leaders, address cumulative impacts and support mandatory emissions reductions.

B. Locomotives and Railyards

EPA also needs to take immediate action to clean up the nation's incredibly polluting freight rail industry. Children, families, and workers live near railyards and freight rail routes where some of the dirtiest switcher and line-haul locomotives belch diesel particulate matter each day, sometimes just feet from homes, schools, and workplaces. Communities have had to pay for the rail industry's pollution with their health for decades, and continue to suffer devastating short- and long-term health consequences from exposure to diesel pollution.

We ask that EPA adopt a much-needed rulemaking by the end of 2022 to address the public health dirty air crisis caused by locomotive pollution. EPA should include a Tier 5 zero-emission locomotive standard for all new freight locomotives that requires 100% of all new switchers be zero-emission by 2025, and 100% of all new line-hauls be zero-emission by 2030. We also ask that EPA set significantly more stringent emission standards for all remanufactured locomotives and locomotive engines, so that 100% of

⁹ "To grave" means that how and where waste from the ZE technology as well as the diesel vehicles that will no longer be in use must consider the waste stream in the planning and implementation of ZE policies and programs.

¹⁰Renewable energy may have many definitions based on the source of energy. MFN considers solar and wind to be renewable energy. However, there are important EJ and equity implications that come from these "cleaner" energy sources (i.e siting, manufacturing, shipping, etc). All of these must be considered with EJ leadership before endorsing specific renewable energy recommendations.

all remanufactured switchers meet the Tier 4 standard by 2025, and 100% of all line-haul locomotives meet the Tier 4 standard by 2027. EPA should require the forced retirement of any locomotives or locomotive engines that do not meet a zero-emission Tier 5 standard by 2045. In addition, EPA should work with our organizations to create a strategy to eliminate pollution burdens from concentrated railyard operations that pose significant health and safety risks, including but not limited to pollution and impacts from the operation of locomotive maintenance facilities, locomotive parking/idling and supporting warehouses, throughout EJ communities and railyard maintenance facilities.

C. Marine Vessels

Marine vessels are one of the largest contributors of cancer-causing pollutants around seaports and inland waterways. Ships and boats that operate along our coastlines and in our lakes still operate on dirty diesel engines and are responsible for a significant amount of diesel particulate matter exposure in portside communities. To address the health risks associated with marine vessels, we recommend that EPA adopt a rulemaking by the end of 2022 that will maximize zero-emission requirements for marine engines.

Specifically, EPA should include a Tier 5 zero-emission standard that will require 100% of new marine engines to be zero-emission by 2035. EPA should also require all remanufactured marine diesel engines to meet the Tier 4 standard by 2025 and the retirement of any marine engines that do not meet the zero-emission standard by no later than 2045.

To support the shift towards zero-emission vessel operations, EPA should continue to provide grants for the installation of shore power infrastructure and ship emission capture systems to reduce at-berth emissions. In fact, EPA should direct all Regional Administrators to work with local state and port officials to incorporate shoreside power and ship emission capture standards into their State Implementation Plans. We also encourage EPA to require all ships at-berth in U.S. ports emit zero emissions under the United States' port state control authority. Finally, because EPA's domestic regulations only apply to U.S. vessels, we urge EPA to push its federal colleagues at the U.S. Coast Guard, National Oceanic and Atmospheric Administration, and the Department of State to push for strong international standards and other strategies to clean up toxic hotspots near seaports at the International Maritime Organization.

D. Cargo Handling Equipment

Cargo handling equipment (e.g. forklifts, loaders, gantry cranes, tractor trucks, and yard hostlers) is an ineffectively regulated major source of pollution in port-adjacent communities. These pieces of equipment are regulated under EPA's nonroad engine rule, which has not been amended since 2004 and has failed to adequately reduce their pollution. Like freight trucks, this equipment is ripe for electrification--it does not travel beyond the port, rail yard or warehouse, and can be recharged on site or operated with a permanent electrical connection. Ports around the globe have already demonstrated many examples of this zero-emission equipment.¹¹ The Clean Air Act directs EPA, from time to time, to revise the standards for

¹¹ Electric yard cranes have entered service at the Port of Long Beach, a fleet of electric forklifts runs on on-site renewable energy at the Port of Hull in the United Kingdom, and rubber tire gantry cranes are in operation at the Port of Montevideo in Uruguay.

nonroad engines and vehicles to achieve the greatest degree of emission reductions achievable. It is beyond time for EPA to revise these standards and include zero-emission mandates for cargo handling equipment. By 2023, EPA should adopt new nonroad standards for port, warehouse, and railyard cargo handling equipment that achieves 100 percent zero-emission equipment by no later than 2026,¹² which is the date that the largest port complex in the U.S. also plans to achieve zero-emissions.¹³¹⁴¹⁵

E. Indirect Source Review Rules

The rapid and unchecked growth in warehousing has created toxic hotspots around the country well beyond the traditional ports and railyards that have been the focus of freight regulations. EPA must use its authority to address this growing problem. In addition to directly regulating mobile sources with new federal standards, EPA should also support the electrification of freight operations by exercising its authority to adopt regulations on freight facilities that “indirectly” contribute to pollution hotspots by concentrating mobile source emissions. Indirect source¹⁶ requirements can support transportation electrification by encouraging zero-emission operational strategies for moving freight, and ensuring magnet sources have the infrastructure necessary to support zero-emission trucks and equipment.¹⁷ Because of the expansive nature of warehouses across the country and lack of regulations protecting the health and safety of frontline communities, the timeline for EPA to move an indirect source rule and review process for warehouses needs to be aggressive with targeted goals and accountability structures that begin immediately.

EPA has authority to regulate “major federally assisted” indirect sources as part of a federal implementation plan.¹⁸ EPA has used federal implementation plans to address regional NOx pollution from power plants, and should include federal indirect source rules as part of future federal NOx plans. These federal rules can serve as a model for states wishing to address these NOx sources, or provide a backstop for those states unable or unwilling to regulate these sources.

II. Support State and Local Freight Controls

In addition to adopting the federal regulatory measures outlined above, EPA must also support state and local actions to address freight pollution in areas that violate the national ambient air quality standards, create toxic “hot spots,” and/or increase inequities in pollution burdens. The following are

¹² California Air Resources Board, Cargo Handling Equipment Regulation to Transition to Zero-Emissions (Description of Approach),

<https://ww2.arb.ca.gov/resources/documents/cargo-handling-equipment-regulation-transition-zero-emissions>

¹³ <https://ww2.arb.ca.gov/ou.r-work/programs/cargo-handling-equipment>

¹⁴ CARB, Cargo Handling Equipment: 2011 Regulatory Amendments, <https://ww2.arb.ca.gov/sites/default/files/2020-07/chefactsheet121813.pdf>

¹⁵ <https://ww2.arb.ca.gov/resources/documents/cargo-handling-equipment-regulation-transition-zero-emissions>

¹⁶ See 42 U.S.C. § 7410(a)(5)(C) (defining “indirect source”)

¹⁷ The South Coast Air Quality Management District recently adopted a warehouse indirect source rule that promises to cut pollution from the trucks traveling to and from warehouses, electrify warehouses, and create local clean energy jobs. Allyn Stern et al, “South Coast AQMD Adopts Warehouse Indirect Source Rule, First Reporting Months Away,” *National Law Review* (May 18, 2021)

¹⁸ 42 U.S.C. § 7410(a)(5)(B)

recommendations on steps EPA should take to bring necessary attention and resources to the environmental justice priorities around freight facilities.

A. Direct States to Quantify the Problem

First and foremost the EPA needs to be applying its authority to ensure that all states are submitting state implementations plans and meeting air quality standards. The Clean Air Act includes very specific deadlines for the adoption of plans and rules, for demonstrating progress in reducing emissions and achieving attainment,¹⁹ but EPA often must be sued by community groups to enforce these deadlines. EPA must commit to fulfilling its mandatory duties to make the air planning process meaningful. By the end of 2021, EPA should make a publicly available list of those states and air quality control regions with upcoming and outstanding SIP obligations. This list should include the timeline for when states are responsible for submitting plan requirements and when EPA must act on those submittals. For those states that are out of compliance, EPA should be imposing sanctions and adopting federal plans as required by the Clean Air Act to ensure compliance.²⁰ As the 2009 NEJAC recommendations highlighted, there is a basic need to identify facilities of concern and engage the communities around those facilities in formulating solutions. Unfortunately, the current approach to state implementation planning does not facilitate that sort of facility-based assessment because emissions inventories typically quantify the emissions from various categories of sources including heavy-duty trucks and locomotives without providing information on how those emissions are aggregated at freight hubs. EPA has authority to revise how inventories are prepared in order “to assure the [nonattainment plan] requirements . . . are met.”²¹ EPA should require States to report the emissions from freight facilities in order to allow communities to understand the pollution and health risks created by freight operations, and devise and advocate for control measures and solutions to address the problem.

B. Provide Guidance on Control Options Available to State and Local Authorities

To date, EPA has provided little to no guidance on current options for mobile source measures that could be adopted by state and local agencies responsible for addressing air pollution, even though the failure to consider these types of measures has been found to be a violation of the Clean Air Act.²² Too often, state and local air districts assume that because the sources of emissions at freight facilities are mobile sources subject to federal preemption protections, state or local agencies have no authority at all to regulate these sources.²³ The reality is that state and local agencies have a number of tools available to them to control pollution from freight sources, and EPA should issue guidance to assist states in their evaluation of

¹⁹ See, e.g., 42 U.S.C. §§ 7410, 75027505a, 7509, 7511a, 7513, and 7513a.

²⁰ See, e.g., 42 U.S.C. §§ 7410(c), (k), (m), and 7509.

²¹ 42 U.S.C. § 7502(c)(3)

²² See *Sierra Club v. EPA*, 294 F.3d 155, 162-63 (D.C. Cir. 2002) (vacating EPA approval of plan for D.C. area based on failure to consider measures such as retrofitting trucks and buses and controlling airport ground support equipment); see also Memorandum from Roger Strelow, Asst. Admin Air and Waste Mgmt., EPA to EPA Regional Administrator (Dec. 9, 1976) (explaining that fulfilling the Act’s reasonably available control measure requirement requires consideration of area and mobile sources controls as well controls on stationary sources); 80 Fed. Reg. 15340, 15371 (Mar. 23, 2015) (proposed PM2.5 implementation rule).

²³ See, e.g., 42 U.S.C. § 7543(a) and (e).

available options including: regulations on the use of existing engines and vehicles²⁴ indirect source review requirements on facilities that attract mobile sources,²⁵ and public fleet purchase requirements.²⁶ Finally, while states are generally precluded from adopting standards for new engines and vehicles that are more stringent than federal standards, California is not, and states with nonattainment plans are free to adopt standards that are identical to the California standards.²⁷ As part of EPA's guidance, EPA should encourage states where freight sources are important contributors to violations of the national standards to adopt mobile source measures that California, and EPA (through its preemption waiver approval), have deemed feasible.

C. Develop Incentive Funding Strategies to Target Freight Sources

EPA must develop a more targeted strategy for awarding federal funds to promote zero-emission technologies in freight operations. Funding should only support zero-emission projects and be targeted to applicants that meet strict criteria, including for example, ports with facility-specific emissions inventories that are publicly available and meet meaningful health risk and emission reduction goals, mandate community and environmental justice participation. Finally, funding programs must be coupled with regulatory requirements to provide clear market signals.

Enforce Civil Rights Obligations on Entities Receiving Federal Funds

EPA should also ensure that federal funding recipients are complying with civil rights obligations and are not approving or otherwise enabling freight projects that create disproportionate impacts on communities of color. It can do so by, for example, weighing-in on local decision-making processes to emphasize the importance of EJ assessments for freight facilities that evaluate impacts to air quality in the immediate community compared to air quality impacts in other parts of the city/municipality, along with more comprehensive evaluation of cumulative environmental burdens and disparities consistent with a "cumulative impacts" framework. Coordination with the U.S. Department of Transportation and other federal agencies with freight responsibilities to these ends is also necessary and called for by President Biden's government-wide commitment to achieve environmental justice.²⁸

III. Conclusion

Environmental justice communities are disproportionately impacted by the pollution and effects of climate change that comes from the freight sector. The effects of climate change nationally can already be seen in an increase in extreme weather events, rising sea level, higher temperatures, and prolonged heatwaves. The window within which society as a whole can take action to avoid the worst effects of climate change is rapidly closing. Preventing the consequences of climate change will require drastic changes in energy production, use, and consumption. To effectively implement the necessary considerations there needs to be collaboration between the EPA, other regulatory departments,

²⁴ see *id.*

²⁵ *id.* § 7410(a)(5)

²⁶ See *Engine Mfrs. Ass'n v. South Coast Air Quality Management Dist.*, 498 F.3d 1031, 1045-49 (2007)

²⁷ 42 U.S.C. §§ 7507 and 7543(e)(2)(B)

²⁸ https://legacy-assets.eenews.net/open_files/assets/2021/02/02/document_gw_03.pdf

environmental justice communities and frontline workers. The concerns and recommendations shared in this letter are not meant to be an exhaustive list but to illustrate the breadth to which the freight sector should be addressed. EJ communities are bearing the public health and environmental burdens from this ever expanding freight sector. MFN is calling upon the EPA to be a leader in prioritizing and implementing actionable policies and programs that center equity and justice while moving Zero Emission solutions now.

Thank you for your consideration. We look forward to hearing from you. If you have any questions or would like to schedule a follow up meeting please contact, Angelo Logan at alogan@oxy.edu and Molly Greenberg at greenbergm@oxy.edu.

Sincerely,

The Moving Forward Network Advisory Board and Staff

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