June 16, 2023

U.S. Environmental Protection Agency
EPA Docket Center, OAR
Mail Code 28221T
1200 Pennsylvania Avenue NW
Washington, DC 20460
Docket ID No. EPA-HQ-OAR-2022-0985

Dear Administrator Regan:

The Moving Forward Network is a national network representing communities impacted by the freight transportation system—from Southern and Central California to Chicago, Detroit, Houston, Kansas City, South Carolina, New Jersey, Alabama, Virginia, Florida, and many communities in between. No matter the city, there are certain shared features of living alongside the global freight system: First, communities of color and low income communities are consistently on the frontlines/fenceline of pollution from the freight sector; Second, any equipment with emissions affects community health; and Third, industry very rarely, if ever, volunteers to transition its equipment to zero-emissions.

The rail industry remains one of the most significant sources of pollution in communities across the country. Our communities live near railyards and freight rail routes, where some of the dirtiest switcher and line-haul locomotives, some 50 to 60 years old, belch diesel particulate matter daily. Tracks are located feet from our homes, schools, playground, and workplaces. Children, families, and workers in our 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.

Diesel locomotives, the most widely used in the United States, have significant and long-lasting negative impacts on public health, including increased childhood asthma, lung disease, and premature death. Low-income communities and communities of color often suffer the most from the locomotive industry's life-threatening pollution because railyards and rail routes are typically located in, on, and near these communities.

> *"We have high-risk zip codes where asthma, heart disease, and cancer are above the national average and are the same areas sliced by the second largest rail system in the nation."*
> – Atenas Mena, CleanAirNow (Kansas City, Kansas)

The comments below include a detailed analysis in strong support of EPA's proposal to align its locomotive preemption regulations with the text of the Clean Air Act. EPA exceeded its statutory authority in adopting a period of preemption and categories of preempted control measures for both new and non-new locomotives and engines used in locomotives. Removing 40 CFR

Section 1074.12(b) is necessary to align EPA's preemption regulations with Section 209(e)(2) of the Clean Air Act and the cooperative federal system Congress designed in the Clean Air Act.

We also ask EPA to take affirmative actions to reduce locomotive pollution, including by adopting a Tier 5 zero-emission locomotive emission standard, requiring all locomotives and engines used in locomotives meet a Tier 5 zero-emission locomotive emission standard by 2045, and working with our organizations to develop strategies to reduce railyard pollution.

In sum, the freight sector continues to radically impact the health and well-being of communities across the country. Locomotives remain on the shortlist of polluting industries. There is a dire need for all levels of government to act as soon as possible to hold Class I, II, and III operators accountable for upgrading their fleets to cleaner tiers and zero-emission technology.

I. Locomotive pollution has significant negative impacts on our health, regional air quality, and climate.

A. *The global freight system pollutes our communities.*

The freight system—the intricate network transporting huge volumes of goods from places of manufacturing origin to the marketplace to local businesses, governments, communities, and the homes of consumers, and then waste—continues to be one of the most significant sources of pollution and environmental injustice in the United States. Hundreds of thousands of diesel trucks, locomotives, ships, and cargo handling equipment dump tons of dangerous criteria pollutants into our airways daily. Cargo facilities that serve as hubs in the goods movement network, like ports, railyards, and warehouses, and the channels that carry this huge machinery, like freeways and rail lines, are more often than not inhumanely close to where people live and work. Decades of racist zoning policies have practically ensured that these polluting facilities are located in low-income communities and communities of color, creating an environmental justice disaster. Not only this, but it is commonplace for multiple polluting facilities to be concentrated in these communities. If there is a nearby railyard, there is more likely to be a nearby port, freeways, warehouses, or refineries—or all of the above. People who bear the brunt of the negative effects of one polluting facility are much more likely to suffer the consequences of multiple cumulative impacts. It is woefully unjust for communities to bear the cumulative impacts from railyards and locomotives, which include public health concerns, economic impacts, public safety fears, and housing issues.

We rely on our air regulators at the federal, state, and local levels to prioritize the need for industry to eliminate its pollution. Until then, communities on the frontlines will continue to pay with our health.

B. *Railyard pollution has created a national public health crisis.*

There is no debate that rail pollution negatively affects the health, safety, and well-being of communities across the country. Exposure to diesel exhaust from locomotives is deadly. Exposure to the pollutants in diesel exhaust—especially long-term exposure—has clear, adverse health effects. More than 90% of diesel exhaust consists of ultra-fine particles that are

less than 1 micron in diameter. These ultra-fine particles are so small that they can cross the air-blood barrier in the lungs and enter the bloodstream, allowing them to travel to virtually any organ system in the body and disrupt normal cell function.

The California Air Resources Board (CARB) performed health risk assessments for every major railyard in California from 2005 to 2008. While these reviews are dated, they remain some of the most robust studies of health risks from railyard pollution. This speaks to the need for more current, detailed health assessments of the impacts of railyard pollution on local communities. Thankfully, the U.S. Federal Railroad Administration (FRA) has recognized that there is a disparity in the communities who suffer from railyard pollution. The FRA is developing a mapping tool overlaying railyards on environmental justice communities to assess where these harms are being inflicted. We look forward to engaging with the FRA on the development of this tool. In addition, **we urge EPA to work with sister agencies to invest in developing public health research in railyard hubs around the country, including but not limited to Chicago, Kansas City, Charleston, Houston, and New Jersey.**

In the meantime, CARB's data paints a vivid picture about the significantly elevated cancer and other health risks from living or working in close proximity to a railyard. In 2008, the estimated diesel emissions from railyard operations at BNSF San Bernardino, BNSF Barstow, and UP Colton railyards in Southern California was 66.4 tons of PM emissions.[1] Residents living near each of the San Bernardino County railyard facilities experienced between 575 to 3,300 in a million increased risk of cancer from railyard pollution alone—excluding any additional cancer risk from other cumulative impacts or regional air pollution.[2] The UP Colton railyard, which is 5.5 miles long and one-third of a mile wide, is just 350 feet from the nearest homes and neighbors a local high school.[3] Locomotive operations account for 99% of diesel PM emissions at UP Colton, highlighting the need for stricter locomotive regulations.[4] Residents and local workers near these San Bernardino County railyards were also found to be at increased risk for asthma-related emergency room visits, increased risk of death from cardiopulmonary issues, and increased hospitalizations for cardiovascular and respiratory illness.[5]

CARB's assessment also highlights the communities that are saddled with these health risks. For example, residents who live near the BNSF San Bernardino and UP Colton railyards are more likely to be low-income and to self-identify as Latinx than residents in other parts of San Bernardino, Barstow, and Colton.[6]

[1] Ed Avol, Professor of Environmental Health, Keck School of Medicine of University of Southern California, testimony ("Avol Testimony"), at Q55.
[2] See Avol Testimony at Q44, Q47, Q52.
[3] See Avol Testimony at Q51.
[4] See Avol Testimony at Q51.
[5] See Avol Testimony at Q44.
[6] See Avol Testimony at Q46, Q50, Q54.

Given that some of these railyards have since grown and adoption of Tier 4 locomotives remains at less than 5% in California, we can expect that these health impacts have not improved much, and in fact, may have worsened over the last 15-20 years.

Moreover, a study in Newark, New Jersey, found that "[e]missions of PM2.5, black carbon, and NOx from non-roadway sources, particularly locomotives and port operations, have the highest air quality impact in the total study area, followed by medium- and heavy-duty vehicles."[7] Critically, emissions from locomotives and port operations "contribute around 95 percent of the total emissions" from the area, which included much of southeast Newark and north Elizabeth, including Newark Airport and the ports of Newark and Elizabeth, New Jersey.[8]

In addition to local health effects, locomotive pollution makes up a considerable portion of regional air pollution and therefore presents challenges for states to reduce regional air quality and to achieve attainment of the federal air quality standards. The Clean Air Act's cooperative federalism scheme holds both states and the federal government accountable for reducing regional air pollution—all parties must do more. Regardless of who is responsible for reducing this pollution, there is no question that locomotive emissions are a major contributor to states' total pollution. Again, we lack sufficient data about the amount of pollution from locomotives in each state, so California's data must serve as a stand in. In California, rail pollution contributes 15% of all freight sector NOx emissions and 11% of all freight sector PM2.5 emissions in 2022.[9] In California's case—and likely in the case of other states—it is next to impossible to achieve the National Ambient Air Quality Standards (NAAQS) without addressing locomotive pollution.

C. *The dirtiest, oldest switcher locomotives operate in community railyards.*

Railyard pollution, in particular, remains exceptionally harmful to the health of people who live and work near these facilities. Switcher locomotives make up the largest share of railyard locomotives, yet they are also notoriously some of the most outdated and highest-polluting locomotives. The following table shows that two-thirds of Class I locomotives operating in railyards in 2020 were Tier 0 or Tier 0+. This means that 67% of the locomotives that operate closest to where people live are emitting at extremely high levels.

Even more concerning is that Class I railyard fleets became *dirtier* over time. From 2017 to 2020, locomotive fleets used in railyards moved toward older technology and away from cleaner, higher tier engines. This trend should be deeply concerning to EPA, just as it is to our members.

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[7] MJ Bradley & Associates, Newark Community Impacts Mobile Source Emissions - Community-Based Participatory Research Analysis, (Nov. 2020), https://njeja.org/wp-content/uploads/2021/06/NewarkCommunityImpacts_MJBA.pdf.

[8] *Id.*

[9] CARB, In-Use Locomotive Regulation Presentation (Nov. 18, 2022), at 5, https://ww2.arb.ca.gov/sites/default/files/barcu/board/books/2022/111722/placeholder/22-15-6pres.pdf.

Table 1: 2017-2020 Yard Engine Fleet Composition Comparison

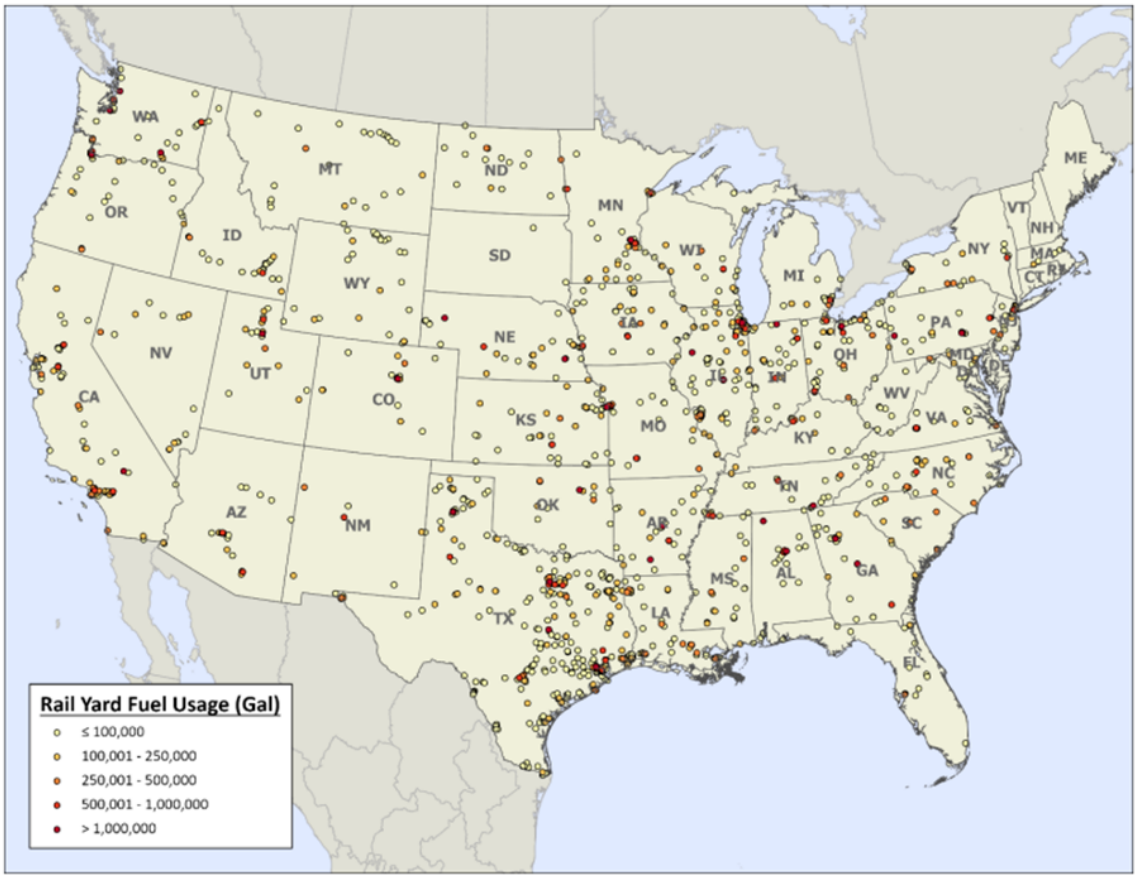
Tier	2020 Locomotive Count	2017 % of Fleet	2020 % of Fleet
0	673	23.61%	23.75%
0+	1,182	25.99%	41.71%
1	0	0.00%	0.00%
1+	26	4.76%	0.92%
2	7	2.33%	0.25%
2+	0	4.64%	0.00%
3	11	10.18%	0.39%
4	23	2.47%	0.81%
NC	912	26.01%	32.18%

This shocking information communicates three things clearly: **First, railroads have no interest in being good neighbors to frontline communities living near railyards; Second, railroads cannot be trusted to voluntarily adopt cleaner technology over time—and in fact, will revert to older, dirtier technology if given the choice; and Third, twenty-five years after EPA adopted its first locomotive emission standard, federal, state and local regulations to address rail pollution remain far too weak.**

The impacts of this crisis are being felt across the country. Class I railyards are located in almost every single state, as shown in the following figure.[10]

[10] 2020 National Emissions Inventory Locomotive Methodology Prepared for U.S. Environmental Protection Agency by Eastern Research Group, Inc. (May 19, 2022), at 8, https://gaftp.epa.gov/air/nei/2020/doc/supporting_data/nonpoint/Rail/2020_NEI_Rail_062722.pdf.

Figure 1: Rail Yard Locations in the United States



But the harms from railyards do not stop with public health. Living near a railyard comes with a slew of other debilitating consequences. Stadium-style lights beam into neighboring homes at all hours of the night; trains blare their horns unexpectedly and at jarring levels[11]; and the vibrations from passing trains rumble homes like an earthquake. There have also been numerous reported instances of emergency vehicles being unable to travel to where they need to be because a miles-long train or idling locomotive stops them in their path. Trains are also often stopped for hours and days at a time, creating safety issues for children walking to school. All of these side effects result in significantly reduced quality of life and shorter average lifespans in our communities. The generational trauma from these cumulative incidents carries the legacy of these dangerous facilities through our communities' family lines.

D. *Members from freight hubs around the United States tell their stories of living near railyards.*

Community members across the country, from Kansas City to Chicago to San Bernardino,

[11] Emily Baumgaertner, Jsaon Jao, Eleanor Lutz, Josephine Sedgwick, Rumsey Taylor, Noah Throop, Josh Williams, *Noise Could Take Years Off Your Life. Here's How*, (June 9, 2023), https://www.nytimes.com/interactive/2023/06/09/health/noise-exposure-health-impacts.html.

share their stories of living with railyard pollution.

Kansas City, Kansas – Atenas Mena, CleanAirNow

- *My hometown, Kansas City, is home to the second-largest rural transportation center in the country. In fact, the rail industry remains one of the most significant sources of this environmental injustice for many of our communities. Diesel-powered locomotives emit large quantities of nitrogen oxide, diesel particulate matter, and volatile organic compounds.* ***Residents of Armourdale, which is a neighborhood in Kansas City, Kansas, predominantly Latino, Hispanic working class, is enclosed between large rail yards, dirty industry, and heavily trafficked highways. They experience a life expectancy of 22 years shorter, according to the CDC.*** *This is the same neighborhood where you will not find any electric charging stations or access to transportation.* ***Healthcare and other resources are limited, and climate change weather patterns are felt regularly with record-breaking heat waves, floods, droughts, and concerning poor air quality days.*** *KCK is not siloed in this large and impactful discrepancy. Our nation has been overburdening environmental justice communities by having them bear the brunt of systemic racism with the legacy of redlining, zoning and dumping practices, leaving families without access to clean air, water, and land.*

Chicago, Illinois – Jose Acosta, Little Village Environmental Justice Organization

- *Oh, there are also schools and parks and other things that are near these rail yards (in Chicago). But these are essentially inland ports, right? They function as a port, although they're not... they don't have access to water, but they're just as busy.* ***If you look at all of our 19 ports, our 19 inland ports, they're all just as busy as... almost as busy as the Los Angeles and Long Beach ports…where the intermodal are located, people of color are also living. So this is an issue that primarily impacts black and brown communities, and as a result, we're dealing with the most concentrated pollution.*** *And in addition to the intermodal, you also have other logistics activities that locate as closely as possible to these intermodal, right, so distribution centers and warehouses and trucks, other trucking yards, and just all other logistics facilities want to be as close to these as possible. In addition, many of these are also close to highways, so there's that combination of that as well.*

San Bernardino, California – Ivette Torres, People's Collective for Environmental Justice

- *Two of the biggest rail communities in the Inland Empire, California, are Colton and San Bernardino... Colton is not only worried about freight. Colton is a small community. There are no official sensors and no official monitoring.* ***Yet, they're impacted by two industry highways, gas plants, cement plants, huge warehouse logistics, as well as the expansion of rail coming their way through BNSF and Union Pacific. For San Bernardino, we have the BNSF in our facility that has been in San Bernardino since the beginning, at least the rail. But the facility has expanded throughout the***

years and continues to expand. *This last year they're adding, they passed, the city council passed another rail expansion, another line, and that is displacing homes and buying out homes on the west side community of San Bernardino, which is already really impacted by the thousands of trucks and trains that come out of that community. And those are during COVID, they took advantage and bought out some homes, and most of these people are renters, so they had no idea they were going to be kicked out of their homes so the BNSF could expand their day-to-day trade.*

Detroit, Michigan – Raquel Garcia, Southwest Detroit Environmental Vision

- *The kids walk under this rail viaduct. It runs all day and shakes the school. If it derailed or spilled toxic materials, it would literally spill onto faculty cars.*

Photo 1: César Chávez Academy High School, Detroit Michigan, Photo by: Raquel García

Joliet, Illinois – Zhenya Polozova, Warehouse Workers for Justice

- Staff and members of Warehouse Workers for Justice measuring particulate matter pollution within and around CenterPoint, the largest inland port in North America based in Will County, Illinois. This ongoing measurement led to the creation of the report for Clean Air & Good Jobs, a report outlining the challenges and necessary steps to enact a just transition to zero-emissions for Will County.

Photos from Warehouse Workers for Justice (WW4J). Photos 2-4 are from WW4J measuring air pollution in Joliet. Photo 5 is a WW4J social media post sharing a news story about truck and rail pollution.

E. *The majority of locomotives are outdated and emit high levels of diesel exhaust, NOx, and PM.*

Despite EPA adopting four tiers of locomotive emission standards starting in 1998, the state of locomotive pollution in the US remains dire. The nearly $80-billion freight rail industry remains one of the most polluting industries in the country. Not only is railyard pollution of specific concern, but long distance line-hauls continue to pollute at concerning levels. The basic reason for this is that the majority of locomotives still in operation are far outdated and therefore emit unnecessarily high levels of diesel exhaust, NOx, and PM. Table 5 shows the emission factors for criteria pollutants for 2020 line-haul locomotives by tier.[12] NOx, PM and VOC emissions for Tier 3 and older locomotives are dramatically higher than for Tier 4 locomotives. For instance,

[12] 2020 National Emissions Inventory Locomotive Methodology Prepared for U.S. Environmental Protection Agency by Eastern Research Group, Inc. (May 19, 2022), at 5, https://gaftp.epa.gov/air/nei/2020/doc/supporting_data/nonpoint/Rail/2020_NEI_Rail_062722.pdf.

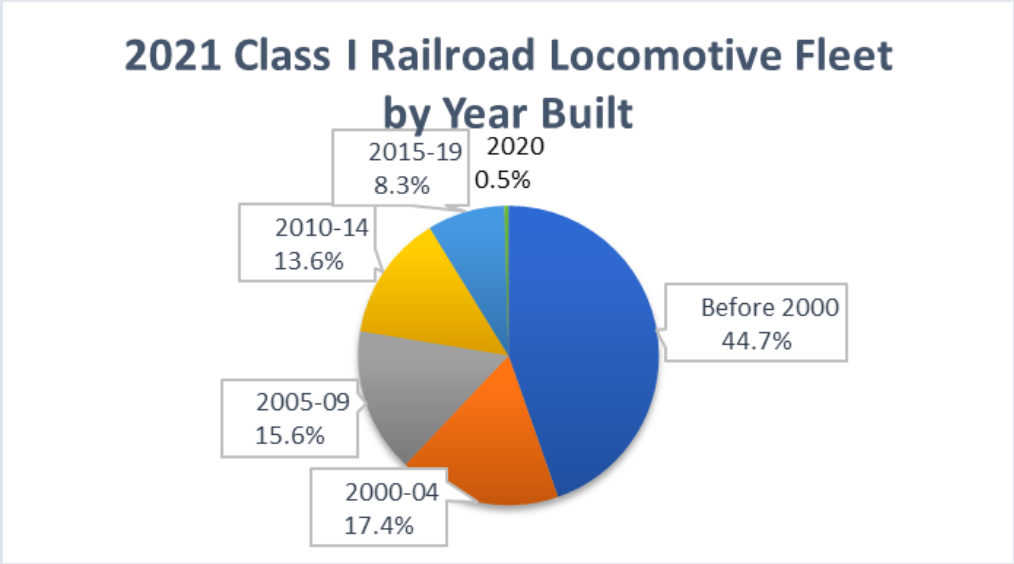
even jumping up just one tier from Tier 3 to Tier 4 results in impressive emission reductions: Tier 3 line-hauls emit almost 500% more NOx, 533% more PM2.5, and 325% more VOC than Tier 4 line-hauls. Yet, only 9% of Class I locomotives—whether switcher or line-haul—were built in 2015 or later and, therefore must meet the most restrictive Tier 4 standard.

By comparison, according to 2021 data from the U.S. Bureau of Transportation Statistics, 45% of Class I locomotives are Tier 0 and emit a jarring 860% more NOx, 2,130% more PM2.5, and 1,200% more VOC than Tier 4 line-hauls. These figures warrant a pause—almost half of all Class I locomotives operating in the United States emitted criteria pollution at these unnecessarily high levels, even though these toxins are known to cause conditions like cancer, cardiac and respiratory issues, reproductive issues, asthma, lowered lung function, chronic obstructive pulmonary disorder, and premature death.

Table 2: 2020 Line-haul Locomotive Emission Factors by Tier, AAR Fleet Mix (g/gal)

Tier	Tier Name	CH4	CO	CO_2	N_2O	NH_3	NO_X	PM_{10}	PM_{25}	SO_2	VOC
0	1973-2001	0.8	26.624	10,150	0.26	0.0833	178.88	6.656	6.45632	0.0939	10.513152
0+	Tier 0 Rebuild	0.8	26.624	10,150	0.26	0.0833	149.76	4.16	4.0352	0.0939	6.57072
1	2002-2004	0.8	26.624	10,150	0.26	0.0833	139.36	6.656	6.45632	0.0939	10.294128
1+	Tier 1 Rebuild	0.8	26.624	10,150	0.26	0.0833	139.36	4.16	4.0352	0.0939	6.351696
2	2005-2011	0.8	26.624	10,150	0.26	0.0833	102.96	3.744	3.63168	0.0939	5.694624
2+	Tier 2 Rebuild	0.8	26.624	10,150	0.26	0.0833	102.96	1.664	1.61408	0.0939	2.847312
3	2012-2014	0.8	26.624	10,150	0.26	0.0833	102.96	1.664	1.61408	0.0939	2.847312
4	2015 and later	0.8	26.624	10,150	0.26	0.0833	20.8	0.312	0.30264	0.0939	0.876096
4C	Tier 3 Built after	0.8	26.624	10,150	0.26	0.0833	102.96	1.664	1.61408	0.0939	2.847312
NC	UNCONTROLLED Pre-1973	0.8	26.624	10,150	0.26	0.0833	270.4	6.656	6.45632	0.0939	10.513152
2020 Class I Line Haul Fleet-Weighted		**0.8**	**26.624**	**10,150**	**0.26**	**0.0833**	**120.5**	**3.042**	**2.95076**	**0.0939**	**4.854434**

Figure 2: 2021 Class I Railroad Locomotive Fleet by Year Built[13]



II. The Clean Air Act's cooperative federalism system requires the federal government and states to work together to control air pollution and improve air quality.

Congress purposefully designed the Clean Air Act (CAA) to require States and the federal government to work in partnership under a model of cooperative federalism to achieve clean air. Under the cooperative federalism framework, federal and state authorities have designated roles set forth in the text of the CAA. As Congress noted, federal leadership "is essential for the development of cooperative Federal, State, regional, and local programs to prevent and control air pollution," while "air pollution control at its source is the primary responsibility of States and local governments."[14]

The designated roles in this partnership are as follows. The federal government promulgates the national ambient air quality standards, or NAAQS, for criteria pollutants that might "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare."[15] Each state has "the primary responsibility for assuring air quality within the entire geographic areas" comprising the state.[16] Every state must adopt a State Implementation Plan, or SIP, which prescribes "the manner in which . . . air quality standards will be achieved and

[13] U.S. Bureau of Transp. Statistics, *Class I Railroad Locomotive Fleet by Year Built*, https://www.bts.gov/content/class-i-railroad-locomotive-fleet-year-built.
[14] 42 U.S.C. § 7401.
[15] *Id.* § 7408.
[16] *Id.* § 7407(a).

maintained."[17] SIPs must include enforceable emission limitations and control measures as needed to meet the NAAQS.[18]

Importantly, except where the CAA enumerates areas for exclusive federal regulation, states retain the full extent of their inherent police powers to regulate emissions.[19] The CAA provides that, except for specified preemptions of certain state regulation of mobile source emissions, "nothing . . . shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce (1) any standard or limitation respecting emissions of air pollutants or (2) any requirement respecting control or abatement of air pollution."[20]

As relevant to locomotives, the CAA articulates that federal authorities are tasked with regulating new locomotives and locomotive engines. To this effect, Section 213(a)(5) provides that "the Administrator [of the EPA] shall promulgate regulations containing standards applicable to emissions from *new* locomotives and *new* engines used in locomotives."[21]

In turn, the CAA does preempt state regulation of some—but notably not all—locomotives. Section 209(e) states that "[n]o State or any political subdivision thereof shall adopt or attempt to enforce any standard or other requirement relating to the control of emissions from . . . *[n]ew* locomotives or *new* engines used in locomotives."[22] In the following subsection, however, the CAA clarifies that States are authorized "to adopt and enforce standards and other requirements relating to the control of emissions from" any nonroad vehicles or engines *other than* new locomotives or new locomotive engines.[23]

Section 209(e)(2)(A) further states that EPA "shall . . . authorize" states to adopt and enforce standards for non-new locomotives and non-new engines used in locomotives unless (1) the State's determination that its "standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards" is arbitrary and capricious; (2) the state does not need these standards "to meet compelling and extraordinary conditions"; or (3) the state standards and enforcement procedures are inconsistent with this section of the CAA.[24]

In sum, states are empowered to regulate non-new locomotives and non-new locomotive engines under the CAA, subject to harmonization with other federal laws. There can be no question of this. Otherwise, it is impossible to reconcile why Congress included Section

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[17] *Id.*
[18] *Id.* § 7410(a)(2).
[19] *Id.* § 7416.
[20] *Id.*
[21] *Id.* § 7547(a)(5) (emphasis added).
[22] *Id.* § 7543(e)(1) (emphasis added); *see also id.* § 7543(a) (similar preemption of state standards for new motor vehicles or new motor vehicle engines).
[23] *Id.* § 7543(e)(1), (2)(A) ("In the case of any nonroad vehicles or engines other than those referred to in subparagraph (A) or (B) of paragraph (1)," which refers only to "[n]ew locomotives or new engines used in locomotives" and "[n]ew engines which are used in construction equipment or vehicles or used in farm equipment or vehicles and which are smaller than 175 horsepower.").
[24] *Id.* § 7543(e)(2).

209(e)(2)(A)—which establishes the circumstances in which EPA *must* approve state regulations of non-new locomotives and non-new locomotive engines—in the CAA.

Yet, EPA's 1998 regulation preempted "categories of state regulations . . . even when applied to in-use locomotives and engines for a period equivalent to 1.33 times the useful life period, because of the significant effect such standards and requirements would have on the design and manufacture of new locomotives and new locomotive engines."[25] Broad preemption of state and local efforts to reduce locomotive pollution does not align with the text and cooperative federalism principles underpinning the CAA and warrants EPA's reconsideration.

III. States and local governments must reduce locomotive pollution to protect public health and attain federal air quality standards.

A. States have a statutory duty to attain the federal air quality standards, including regulating locomotive pollution in line with the Clean Air Act.

Congress adopted the Clean Air Act to "protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population" and "to encourage or otherwise promote reasonable Federal, State, and local government actions . . . for pollution prevention" among other goals.[26] As discussed above, under this cooperative federalism regulatory scheme, states have "primary responsibility for assuring air quality" within a given region by submitting implementation plans to achieve and maintain the NAAQS.[27] When an area is in "nonattainment" of a standard, such as ozone or particulate matter, the state must develop a comprehensive State Implementation Plan (SIP) describing how it will achieve that standard.[28]

Locomotives are responsible for a significant amount of pollution in communities across the country. There is no way to clean the air and for states to achieve federal air quality standards without regulating these significant sources of air pollution.

Locomotive pollution impacts all of the NAAQS, and ozone and particulate matter in particular. EPA has progressively strengthened the ozone and particulate matter standards in light of new scientific evidence demonstrating health impacts at lower levels of pollution. Most recently, in 2015, EPA revised the primary and secondary 8-hour ozone standard from the 2008 level of 75 parts per billion (ppb) to 70 ppb, and in 2013, the primary annual PM2.5 standard was revised from 15 micrograms per cubic meter (µg/m3) to 12 µg/m3.

Although states are required to comply with these standards, many continue to fail to meet one or more ozone standards. In fact, almost 125 million people, or 37.7 percent of the U.S. population, live in areas currently classified as being in nonattainment of the 2015 8-hour ozone

[25] 63 Fed. Reg. 18,978, 18,993 (April 16, 1998).
[26] 42 U.S.C. §§ 7401(b), (c).
[27] *Id.* § 7407(a).
[28] *Id.* §§ 7407(d)(1)(A), 7410(a), 7501(2).

standard (70 ppb).[29] These areas include 204 counties in 23 states, including California, Illinois, Missouri, New Jersey, and New York.[30] Parts of California and Pennsylvania are also in nonattainment of the PM2.5 standard.[31]

Many of the states that continue to fail to meet the ozone standards also have high concentrations of rail activity, which adds to the pollution burden that local residents breathe, and that states must clean up. For example, California is home to some of the most polluted air basins in the country. Two of California's airsheds—the South Coast Air Basin and the San Joaquin Valley Air Pollution Control District—suffer from some of the highest levels of ozone and PM2.5 levels in the country. About 12 percent of statewide NOx emissions and 8 percent of statewide PM2.5 emissions originate from locomotives, making the need to regulate rail pollution undeniable. Locomotive pollution is expected to make up about 14 percent of California's NOx inventory and 16 percent of the state's PM2.5 inventory in 2030. This is a staggering proportion of California's total pollution. California has a federal obligation to show how it will attain the NAAQS, and this is nearly impossible without addressing the pollution from locomotives.

Pollution reductions will not happen without state action. Even with the EPA's adoption of Tier 4 standards 15 years ago, Class I railroads remain notoriously truant. In California today, Tier 4 locomotives make up less than 5% of all Class I locomotives. Meanwhile, more than 75% of Class I switcher locomotives remain at Tier 0. There is no justification for this truancy, and in the meantime, people are suffering from higher rates of cancer, asthma, cardiopulmonary illness, and premature death associated with increased pollution from locomotives.

The Clean Air Act explicitly recognizes the authority of states to regulate non-new locomotives in achieving the NAAQS.[32] The legislative history of section 209(e) is illustrative. Congress intentionally preempted state regulation of new nonroad vehicles, including locomotives, due to concerns about impeding interstate commerce. However, Congressional members were concerned that these sources were contributing to air quality problems and that their relative contribution to air quality problems were likely to increase over time, furthering the need for EPA to swiftly adopt regulations for new vehicles and to preserve the right of states to regulate non-new vehicles.[33] Concerned that limiting state authority over nonroad sources would impede air pollution reduction, simultaneously to preempting state regulation of new vehicles, Congress intentionally and expressly maintained state and local government authority to regulate non-new, in-use locomotives:

> As the members know, it was with great reluctance that the Senate conferees agreed to the partial preemption of state authority to control emissions from some

[29] U.S. Env't Prot. Agency, *8-Hour Ozone (2015) Designated Area/State Information*, (Nov. 30, 2022), https://www3.epa.gov/airquality/greenbook/jbtc.html.
[30] *Id.*
[31] *Id.*
[32] 42 U.S.C. § 7543(e).
[33] U.S. Senate, 136 Cong. Rec. S16895-01, Clean Air Act Amendments-Conference Report (Oct. 27, 1990), 1990 WL 164490, at *S16976 [emphasis added].

> new nonroad engines and vehicles. We did so only after the preemption was strictly limited to that it applied only to **new** engines in three distinct categories . . . . **States also fully retain existing authority to regulate emissions from all types of existing or in-use nonroad engines or vehicles** by specifying fuel quality specifications, operational modes or characteristics or measures that limit the use of nonroad engines or equipment.[34]

Another Congressional report explained that "because the preemption is limited to new engine standards only, States can continue to require existing and in-use nonroad engines to reduce emissions by setting fuel requirements, operational conditions or limits on the use of such equipment."[35]

As such, it's clear under the Clean Air Act that states retain authority to regulate non-new locomotives. And in fact, it's critical for states to regulate these vehicles in order to develop SIPs and attain federal air quality standards.

B. State and local governments must reduce pollution from locomotives to protect public health and advance civil rights.

State and local governments also retain authority to address locomotive pollution to protect public health and advance civil rights. This authority resides in both the state's historic police powers and civil rights statutes.

Railyards, rail corridors, and rail maintenance yards impose significant burdens on neighboring communities. They produce noise, vibrations, and dangerous air pollutants. These facilities are known to expose residents to dangerous and toxic air pollution that contributes to high rates of asthma, cancer, and premature death for the communities living in the shadow of these facilities. CARB studies on California's 18 largest rail yards suggest that residents living within 0.5 miles (2,640 feet) of a rail yard face unacceptable cancer risk because of harmful diesel particulate matter emissions.[36] Most often, these are communities of color and low-income communities. These communities often face cumulative impacts due to the concentration of other industrial sources and pollution exposure in their communities, and socioeconomic stressors, meaning that the same amount of pollution can result in more harm than it would if it was located in communities who do not face such stressors.

Thus, it is critical that states and local governments address locomotive operations and reduce pollution from these activities in order to protect public health. Courts have long recognized that

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[34] U.S. Senate, 136 Cong. Rec. S16895-01, Clean Air Act Amendments-Conference Report (Oct. 27, 1990), 1990 WL 164490, at *S16976 (emphasis added).
[35] U.S. Senate, 136 Cong. Rec. S17232-01, Clean Air Act Amendments-Conference Report (Oct. 26, 1990), 1990 WL 165459, at *S17237.
[36] Railyard Health Risk Assessments and Mitigation Measures, Cal. Air Res. Bd., https://ww2.arb.ca.gov/resources/documents/railyard-health-risk-assessments-and-mitigation-measures (last visited June 5, 2023) (containing links for 18 Health Risk Assessments).

state police powers encompass the control of air pollution to protect public health.[37] As the Ninth Circuit noted, "[a]ir pollution prevention falls under the broad police powers of the states, which include the power to protect the health of citizens in the state."[38] Indeed, over six decades ago, the U.S. Supreme Court found that "[l]egislation designed to free from pollution the very air that people breathe clearly falls within the exercise of even the most traditional concept of what is compendiously known as the police power."[39] Vindicating the right for residents to breathe clean air is a well-established and fundamental power of state and local governments.

This historic police power is maintained within the Clean Air Act and aligned with the purpose of section 209(e), which leaves regulation of non-new locomotives to state and local governments. Indeed, the Clean Air Act contains an explicit, broad provision pertaining to the retention of state authority and stating that nothing within the Act "shall preclude or deny" the right of a state or local government to adopt or enforce "1) any standard or limitation respecting emissions of air pollutants or (2) any requirement respecting control or abatement of air pollution."[40] Courts have long recognized that there is a presumption "to protect a state's historic police power in protecting the health and safety of its citizenry unless the clear and manifest purpose of Congress dictates otherwise."[41]

Historic police powers continue to be an important basis of authority for states and local governments to address rail-related activity. In cases examining state and local regulation of locomotive operations, courts have explicitly recognized that local governments retain historic police powers to address rail-related activity, subject to specific limitations of other federal preemption schemes.[42]

Finally, states and local governments also have obligations under federal and state civil rights laws to address rail operations. Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin by any program or activity that received federal financial assistance.[43] Federal regulations implementing Title VI developed by both the U.S.

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[37] *Pac. Merch. Shipping Ass'n v. Goldstene*, 639 F.3d 1154, 1166 (9th Cir. 2011).
[38] *Exxon Mobil Corp. v. US EPA*, 217 F.3d 1246, 1255 (9th Cir. 2000).
[39] *Huron Portland Cement Co. v. City of Detroit*, 362 U.S. 440, 442 (1960).
[40] 42 U.S.C. § 7416.
[41] *Pac. Merch. Shipping Ass'n v. Goldstene*, 639 F.3d 1154, 1166 (9th Cir. 2011) ((ER33 (citing *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230, 67 S.Ct. 1146, 91 L.Ed. 1447 (1947))).
[42] *See, e.g., Green Mountain R.R. Corp. v. Vermont*, 404 F.3d 638, 643 (2d Cir. 2005) ("States and towns may exercise traditional police powers over the development of railroad property, at least to the extent that the regulations protect public health and safety, are settled and defined, can be obeyed with reasonable certainty, entail no extended or open-ended delays, and can be approved (or rejected) without the exercise of discretion on subjective questions.").
[43] *See also* California Government Code Section 11135 (stating that "[n]o person in the State of California shall, on the basis of [a protected category], be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the state or by any state agency, is funded directly by the state, or receives any financial assistance from the state." Implementing regulations further specify that agencies are prohibited from "utiliz[ing] criteria or methods of administration that . . . have the purpose or effect of defeating or

Environmental Protection Agency and the Department of Transportation require agencies to take affirmative actions to remove or overcome the effects of discrimination. In many places, people of color are disproportionately exposed to rail emissions. For example, a 2014 study found significant disparities in diesel exposure by race and income for communities living near major existing railyards in California and further concluded that existing and proposed railyards would disproportionately harm the health of low-income communities of color. Moreover, children are more sensitive to cancer-causing toxins, such as diesel PM, and are more likely to experience an asthma-related ER visit if they live closer to a major railyard. State and local governments maintain authority–and indeed have obligations–to protect frontline communities that have historically borne the brunt of air pollution caused by industrial activities like railyards and ensure that low-income, communities of color, immigrant communities, and other protected classes are no longer subject to high levels of air pollution from locomotives.

IV. EPA must delete 40 CFR § 1074.12(b) because it inappropriately reaches beyond the scope of the agency's statutory authority in broadly preempting state and local governments from adopting locomotive control measures.

As the agency recognized in the Notice of Proposed Rulemaking (NPRM), Section 1074.12(b) results in preemption rules that reach beyond the scope of Section 209(e)(1)'s prohibition on requirements that relate to new locomotives and new engines used in locomotives. We support EPA's proposal to remove Section 1074.12(b) and to make the proposed changes to more closely align the preemption regulations with the CAA. In addition, we ask EPA to confirm that state and local authorities are not preempted from adopting regulations that may relate to the manufacture and design of retrofitting emission controls.

A. *EPA's proposed changes to 40 CFR § 10 to 40 CFR § 101.*

In the NPRM, EPA proposed the following changes to its preemption regulations in 40 CFR § 1074.10 to 40 CFR § 101.

1) In 40 CFR § 1074.10, EPA proposes to revise subsection (b) to contain text that is currently located in section 1074.12(a), and move the current text of subsection (b) into a new subsection (c). The proposed section 1074.10 would appear as follows:

- § 1074.10 Scope of preemption.

  § (a) States and localities are preempted from adopting or enforcing standards or other requirements relating to the control of emissions from new engines smaller than 175 horsepower that are primarily used in farm or construction equipment or vehicles, as defined in this part. For equipment that is used in applications in addition to farming or construction activities, if the equipment is primarily used as farm and/or

substantially impairing the accomplishment of the objectives of the recipient's program with respect to a person of a particular ethnic group identification, religion, age, sex, color, or with a physical or mental disability.")

construction equipment or vehicles (as defined in this part) it is considered farm or construction equipment or vehicles.

§ (b) States and localities are preempted from adopting or enforcing standards or other requirements relating to the control of emissions from new locomotives and new engines used in locomotives.

§ (c) For nonroad engines or vehicles other than those described in paragraph (a) of this section and § 1074.12, States and localities are preempted from enforcing any standards or other requirements relating to control of emissions from nonroad engines or vehicles except as provided in Subpart B of this part.

2) EPA proposes to delete 40 CFR § 1074.12 in its entirety. This proposal would remove the explicit period of preemption as well as the listed categories of state control measures. Because EPA also proposed to relocate current section 1074.12(a) to section 1074.10(b), the proposal would delete the following section only:

- § 1074.12 Scope of preemption-specific provisions for locomotives and locomotive engines

  . . .

  § (b) During a period equivalent in length to 133 percent of the useful life, expressed as MW-hrs (or miles where applicable), beginning at the point at which the locomotive or engine becomes new, those standards or other requirements which are preempted include, but are not limited to, the following: emission standards, mandatory fleet average standards, certification requirements, retrofit, and aftermarket equipment requirements, and nonfederal in-use testing requirements. The standards and other requirements specified in the preceding sentence are preempted, whether applicable to new or other locomotives or locomotive engines.

3) EPA proposes a minor housekeeping edit to paragraph (a) of 40 CFR § 1074.101 to refer to the relocated text in section 1074.10(b) that is proposed to move out of 1074.12. The proposal would read as follows:

- § 1074.101 Procedures for California nonroad authorization requests.

  § (a) California must request authorization from the Administrator to enforce its adopted standards and other requirements relating to control of emissions from nonroad engines or vehicles that are not preempted by § 1074.10(a) or § 1074.10(b). The request must include the record on which the state rulemaking was based.

§ (b) After receiving the authorization request, the Administrator will provide notice and opportunity for a public hearing regarding such requests.

B. *Delete the period of preemption for non-federal authorities to adopt locomotive emission controls.*

As discussed, states and local governments are empowered to protect public health and must attain federal air quality standards under the Clean Air Act. Section 209(e) of the CAA puts an outer limit on this authority but does not revoke it. Section 209(e)(1) provides that "[n]o State or any political subdivision thereof shall adopt or attempt to enforce any standard or other requirement relating to the control of emissions from . . . [n]ew locomotives or new engines used in locomotives."[44] Section 209(e)(2) establishes the parameters under which the Administrator of the EPA must authorize California's regulations for any locomotives other than new locomotives or new engines used in locomotives.[45]

In 1998, when EPA adopted the first locomotive emission regulations, it also adopted broad preemption regulations. As part of this regulatory package, EPA extended the period during which non-federal authorities are preempted from participating in efforts to reduce locomotive pollution to 133 percent of the useful life of a locomotive. The useful life of a locomotive is defined using the typical period that a locomotive engine is expected to be properly functioning, which is about 10 years.[46] This preemption language was codified in 40 CFR § 1074.12(b). This preemption period is not found in the language of the CAA or other statutory directives.

At the same time, EPA adopted 40 CFR § 1033.901, which set forth various definitions relating to locomotives.[47] Importantly, EPA defined "new"—the critical word in the context of locomotive preemption—to include "[a] locomotive or engine . . . if its equitable or legal title has never been transferred to an ultimate purchaser," as well as "[a] locomotive or engine . . . if it is remanufactured or refurbished."[48]

Because locomotives have very long service lives—up to 60 or 70 years in some cases—they must undergo several extensive remanufacturing operations to continue service. Remanufacturing is typically needed every 7 to 10 years. Under EPA's regulations, these remanufactured locomotives were deemed "new" at that point. Once a locomotive regains "new" status as a remanufactured locomotive, it remains under the same or a largely similar emissions tier. In effect, this means a locomotive remains under the same emissions tier from the year it was originally built until the year the engine block is finally unable to continue operations and the locomotive must be retired, several decades later.

In the NPRM, EPA noted that this period of preemption "may be overly restrictive in precluding state consideration of potential measures to reduce emissions from existing locomotives," and

[44] 42 U.S.C. § 7543(e)(1).
[45] *Id.* § 7543(e)(2).
[46] 62 Fed. Reg. 6366, 6378 (Feb. 11, 1997); 40 CFR § 1033.101(g).
[47] 63 Fed. Reg. 18980 (April 16, 1998).
[48] 40 CFR § 1033.901.

"instead may result in our 1998 preemption rules inappropriately reaching beyond the scope of section 209(e)(1)'s prohibition on requirements that relate to new locomotives and new engines used in locomotives."[49] We agree.

By extending the period of preemption to 133 percent of the useful life of a locomotive, EPA exceeded its statutory authority set forth in Section 209(e)(1) of the CAA. We strongly support EPA's proposal to remove this period of preemption by deleting 40 CFR § 1074.12(b) and therefore more closely aligning EPA's regulations with the CAA.

There is nothing in the text of the CAA or in the legislative history that directs EPA to establish a period in which states and local governments are preempted from adopting or enforcing standards for non-new locomotives or locomotive engines.

Moreover, the effect of this lengthy period of preemption runs contrary to the intent of CAA section 209(e)(2). By adding in a period of preemption (coupled with a definition of "new" that includes remanufactured), EPA communicated to states and local governments that they lack authority to adopt controls for any locomotives in operation in the United States, even though this prohibition is not found in the statutory text. To date, no state or local authority has sought authorization under section 209(e) for any program to address emissions from non-new locomotives or engines. Meanwhile, locomotive pollution has become one of the most significant sources of diesel pollution across the country and the bulk of locomotives remain under the oldest, dirtiest tiers.

At the same time, the period of preemption communicated to locomotive operators that they can continue to operate out of the purview of non-federal control so long as locomotives are remanufactured before the approximately 13-year mark (or 133 percent of useful life). Again, this was never the intent of Section 209(e)(1), as is made clear by the presence of Section 209(e)(2), which sets forth parameters under which the Administrator "shall" authorize California's regulations for non-new locomotives and engines used in locomotives.

We urge EPA to delete 40 CFR § 1074.12(b) and more closely align EPA's regulations with the CAA because, in addition to other reasons noted below, the period of preemption exceeds the scope of EPA's authority.

C. *Remove the categorical preemption of specific state control measures.*

When EPA adopted 40 CFR § 1074.12(b) in its 1998 regulations, it also prescribed certain categories of state and local action as preempted control measures when applied to both new locomotives and non-new locomotives. Specifically, the regulation declares that states are preempted from adopting: "emission standards, mandatory fleet average standards, certification requirements, retrofit and aftermarket equipment requirements, and nonfederal in-use testing requirements."[50] The regulation goes further to claim that such state-specific control measures are preempted "whether applicable to new or other locomotives or locomotive engines."[51] In

[49] 81 Fed. Reg. 26095 (April 27, 2023).
[50] 40 CFR § 1074.12(b).
[51] *Id.*

adopting this provision, EPA exceeded its statutory authority. EPA must remove this categorical preemption to align with the Clean Air Act.

First, this regulation is contrary to federal law because it inappropriately attempts to limit state measures that address pollution from non-new locomotives. As explained in detail in section __, *supra*, the Clean Air Act explicitly retains state authority to regulate non-new locomotives.[52] As noted above, when crafting section 209(e), Congress explicitly recognized that states could regulate non-new locomotives, including, for example, "by setting fuel requirements, operational conditions or limits on the use of such equipment."[53] It was an overreach for EPA to limit state authority to regulate non-new locomotives in this regulation. EPA should remove this section in order to align with section 209(e)(1)(B).

Second, the categories of preempted controls listed in this section are inappropriately broad, covering measures that would not significantly affect the design or manufacture of new locomotive engines or vehicles. These regulations were adopted 25 years ago. Technology has developed, further demonstrating that these prescribed categories are outdated and inconsistent with preemption as defined by the statute. As EPA points out in the NPRM, there are several existing technologies, such as the retrofitting of an auxiliary power unit to support engine shutdown for idle reduction, that are available today to control emission reductions of non-new locomotives. This technology and other aftermarket treatments or retrofits can be applied to in-use locomotives without impacting their design and manufacture. Deleting these categorical preemption provisions is essential to aligning the regulations with the reality of emission controls today.

Rather than categorically preempting state action, it is more appropriate for EPA to determine on a case-by-case basis whether individual rules would significantly affect the design and manufacture of new locomotives and engines, and therefore be preempted. Under Clean Air Act section 209(e)(2), EPA is required to review and authorize, subject to certain criteria, California's adoption and enforcement of standards and other requirements relating to control of emissions from nonroad vehicles or engines other than those referred to in paragraph 209(e)(1), which would include non-new locomotives and non-new engines used in locomotives.[54] One of the criteria for this review is whether the control measure is consistent with section 209(e) of the Clean Air Act.[55] Thus, during this inquiry, EPA must determine whether a state action is preempted by applying to "new" locomotives, or if it is a valid exercise of state authority over "non-new" locomotives. The case-by-case analysis will allow for consideration of specific control measures, and needed flexibility as technologies develop. In addition, individuals will have an opportunity to request a hearing and provide public comment on EPA's review. Given these procedures, there is no risk to removing this categorical preemption. EPA will still need to determine whether an individual rule runs afoul of preemption, and a case-by-case analysis

[52] 42 U.S.C. § 7543(e)(1)(B).
[53] U.S. Senate, 136 Cong. Rec. S17232-01, Clean Air Act Amendments-Conference Report (Oct. 26, 1990), 1990 WL 165459, at *S17237.
[54] 42 U.S.C. § 7543(e)(2).
[55] *Id.* § 7543(e)(2)(A)(3).

allows for a far more nuanced and accurate analysis than the current overly broad buckets of categorical preemption.

D. *Make the accompanying housekeeping edits.*

EPA's proposed housekeeping edits would provide clarity in the regulatory scheme and further alignment with the statutory text of the Clean Air Act. We support these proposed revisions.

EPA proposes to revise subsection 40 CFR § 1074.10(b) to contain text currently located in section 1074.12(a) and move the current text of subsection (b) into a new subsection (c). This would be solely a housekeeping measure, which we support.

After making this change, EPA proposes to delete 40 CFR § 1074.12 in its entirety. This change accounts for the removal of the period of preemption and the categorical preemption of specific state control measures. For the reasons noted in sections __ and __, *supra*, we support this change.

E. *Confirm that non-federal authorities are not preempted from adopting control measures relating to the manufacture and design of retrofitting emission controls.*

In the NPRM, EPA notes that where the agency's proposal is adopted, "[a]ny state authorization application received by EPA would need to demonstrate why the submitted control measure would not significantly affect the design or manufacture of a new locomotive."[56] EPA proposes to evaluate authorization applications "on a case-by-case basis" subject to the criteria outlined in section 209(e)(2).[57] We agree that this standard is appropriate and in line with the plain text and intent of Section 209(e).

This standard aligns with the CAA in that it does not extend preemption beyond new locomotives or new engines used in locomotives. Rather, this standard limits preemption to control measures that would "significantly affect the design or manufacture of a new locomotive," which matches the language in Section 209(e)(1). In turn, this language does not appear to categorically preempt states from requiring the development or use of retrofitting emission controls on locomotives. We believe this reading of the standard is required under Section 209(e)(1) and (2), and seek confirmation of this from EPA.

Recognizing that any evaluation of a locomotive control measure must be considered on a case-by-case basis, we ask EPA to clarify that the 'significant effect' test only pertains to the manufacturing and design of new locomotives or engines used in locomotives and does not relate to the manufacturing or design of new aftermarket retrofitting emission controls, as this would exceed the scope of EPA's statutory authority under CAA section 209(e).

[56] 81 Fed. Reg. 26096 (April 27, 2023).
[57] *Id.*

One suggestion is for EPA to expand the example provided in the NPRM regarding the retrofitting of an auxiliary power unit (APU) to support engine shutdown for idle reduction to clarify this inquiry. As EPA notes, "[i]n this scenario, installation of such an APU on a locomotive with an engine shutdown timer can enable the main engine to shut down while maintaining power to auxiliary functions such as air brake pressure and battery state of charge."[58] Because of significant advances in locomotive retrofit technology, "[t]here may be sufficient space and fluids onboard to accommodate this component without disrupting the existing equipment or design of new remanufacturing kits."[59] Importantly, EPA notes that this technology–which involves the design of pollution control technology that is being bolted on, not the design of a new locomotive or engine–would appear to be within state and local authorities' control. We ask EPA to confirm that state and local authorities are not categorically preempted from adopting control measures relating to the manufacture and design of retrofitting emission controls.

V. EPA should adopt a Tier 5 zero-emission locomotive standard by the end of 2023.

Finally, our organizations ask EPA to take the following actions to clean up locomotive and railyard pollution. The following asks are outlined in detail in MFN's Letter Regarding Proposed Locomotive Action at the United States Environmental Protection Agency, dated March 14, 2023[60]:

1. Adopt a rulemaking before the end of 2023 to address the public health, dirty air, and climate crises exacerbated by locomotive pollution.

2. Include in the rulemaking a Tier 5 zero-emission locomotive standard for all new freight locomotives that requires 100 percent of all new switchers be zero-emission by 2025, and 100 percent of all new line-hauls be zero-emission by 2030.[61]

3. Set significantly more stringent emission standards for all remanufactured locomotives and locomotive engines, so that 100 percent of all remanufactured switchers at least meet the Tier 4 standard by 2025, and 100 percent of all line-haul locomotives at least meet the Tier 4 standard by 2027.

4. Require all locomotives and engines used in locomotives that are in operation within the United States to meet a Tier 5 zero-emission standard by 2045. EPA must work in partnership with states to require the scrappage of all non-Tier 5 engines.

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[58] *Id.* at 26095.
[59] *Id.*
[60] Moving Forward Network, *Letter Regarding Proposed Locomotive Action at the United States Environmental Protection Agency*, (March 15, 2022), https://www.movingforwardnetwork.com/wp-content/uploads/2023/04/MFN-Zero-Emission-Locomotive-Letter-March-14-2023.pdf.
[61] *See, e.g.*, Jill W. Moraski, Natalie D. Popovich & Amol A. Phadke, *Leveraging rail-based mobile energy storage to increase grid reliability in the face of climate uncertainty* (May 16, 2023), https://www.nature.com/articles/s41560-023-01276-x.

5. Use the authority in section 108(f)(1)(C) of the Clean Air Act to identify strategies to clean up the toxic hot spots associated with rail and railyard activities to "protect the health of sensitive or susceptible individuals or groups."

6. 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, which are often located in environmental justice communities.

VI. Conclusion

Our members have been forced to live in a system that does not serve–and in fact, opposes–their basic needs of health and safety. Environmental justice communities continue to bear the public health and environmental consequences of the global freight system. For decades, the rail industry has poisoned families, workers, and communities with a barrage of pollution from outdated locomotives. We support EPA in taking this critical action to clarify that states and local authorities are not preempted from adopting life-saving emission control measures for non-new locomotives. States and local governments have the duty to meet the federal air quality standards and to reduce pollution for their communities.

At the same time, EPA has the duty and the responsibility to further reduce emissions from the railroad industry. We urge EPA to take affirmative actions to reduce locomotive pollution by adopting a Tier 5 zero-emission locomotive standard by the end of 2023, requiring all locomotives and engines used in locomotives to meet a Tier 5 zero-emission locomotive standard by 2045, and working with our organizations to create a strategy to eliminate pollution burdens from concentrated railyard operations that pose significant health and safety risks.

Thank you for the opportunity to provide input on this important rulemaking. If there are any follow-up questions, please contact Molly Greenberg, MFN Campaign Manager, at greenberm@oxy.edu.

Sincerely,

The Moving Forward Network (MFN)

The listed members submit the following comments as individual/organizational comments and MFN comments:

Air Alliance Houston, Backbone Campaign, Center for Community Action and Environmental Justice (CCAEJ), Central California Asthma Collaborative, Citizen for a Sustainable Future, CleanAirNow, Clean Water Action NJ, Coalition for a Safe Environment (CFASE), Comite Civico Del Valle, Inc., Duwamish River Community Coalition, EarthJustice, East Yard Communities for Environmental Justice (EYCEJ), Environmental Health Coalition, Greater Frenchtown Revitalization Council, GreenLatinos, Groundwork Northeast Revitalization Group (Groundwork NRG), Harambee House/Citizen for Environmental Justice, Ironbound Community Corporation

(ICC), Little Village Environmental Justice Organization (LVEJO), Lowcountry Alliance for Model Communities (LAMC), Mobile Environmental Justice Action Coalition (MEJAC), Natural Resources Defense Council (NRDC), New Jersey Environmental Justice Alliance (NJEJA), People's Collective for Environmental Justice, Regional Asthma Management and Prevention (RAMP), Respiratory Health Association (RHA), Rethink Energy Florida, Robert Laumbach M.D., Solutionary Rail, Southeast CARE Coalition Angela Harris, Raquel García - Southwest Detroit Environmental Vision (SDEV), South Ward Environmental Alliance (SWEA), Sustainability Action Network, Tallahassee Food Network (TFN), Warehouse Workers for Justice (WWJ), West Long Beach Neighborhood Association, Union of Concerned Scientists.

In addition, the following organizations sign on in support of The Moving Forward Network comment letter:

Center for Biological Diversity - Scott Hochberg, Environmental Defense Fund, Public Citizen, Sierra Club.