

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF TRANSPORTATION AND AIR QUALITY**

Docket EPA-HQ-OAR-2023-0574

**California State Nonroad Engine Pollution Control Standards; In-Use Locomotive
Regulation; Requests for Authorization**

**COMMENTS OF THE AMERICAN SHORT LINE AND REGIONAL RAILROAD
ASSOCIATION AND THE CALIFORNIA SHORT LINE RAILROAD ASSOCIATION**

Introduction

The American Short Line and Regional Railroad Association (“ASLRRA”) and the California Short Line Railroad Association (“CSLRA”) (jointly, “the Associations”) submit these comments in response to EPA’s notice in connection with California Air Resource Board’s (“CARB”) request for EPA authorization of CARB’s In-Use Locomotive Regulation pursuant to section 209 of the Clean Air Act (“CAA”).¹ CARB has not met the criteria under federal law to warrant the EPA authorization CARB seeks.² Accordingly, CARB’s authorization request should be denied.

I. Short Line Railroad Industry Background

ASLRRA is a non-profit trade association representing the interests of over 600 small railroads in legislative and regulatory matters. Member railroads consist primarily of common carriers classified under Surface Transportation Board regulations as either Class II or Class III

¹ 89 Fed. Reg. 14,484 (Feb. 27, 2024).

² 42 USC § 7543.

railroads (“short lines”).³ CSLRA has, along with other functions, promoted best business practices in the short line industry and has advocated for the interests of smaller railroads in state and federal legislative and regulatory matters since 1993. CSLRA’s members include smaller common carrier railroads, predominantly short lines, and railroad museums that operate historic equipment.

Short lines operate about 50,000 miles of track, or approximately 30% of the national freight network, employing approximately 18,000 people, and connecting thousands of manufacturers, businesses, and farmers in communities and small towns to larger markets, urban centers, and ports. *See* Figure 1. Short line railroads play an essential role in preserving, maintaining, and providing transportation services over tens of thousands of miles of light-density lines throughout the country, serving many regions that depend upon the short line to support critical industry in oftentimes remote communities. Many of these lines would have been lost, as would the rail service provided over them, absent the commitment and entrepreneurial spirit of a typical short line railroad. While short lines operate approximately 30% of the national network, they touch only about 20% of the freight cars moved, and these smaller railroads receive only about 6% of the revenue produced by the national freight rail system. As such, they must do more with less. Short lines also serve a critical role in reducing highway truck miles by keeping various commodities moving by rail. In their absence, this truck traffic generated by freight diversion would inflict substantial economic, safety, congestion, road damage and emissions costs on the public.

³ *See* 49 C.F.R. 1201.1-1(a).



Figure 1: U.S. Small Railroad Footprint

The 2020 National Emissions Inventory estimates that short lines operate a fleet of 3,447 diesel-electric locomotives.⁴ Of these included in the estimate, 39% are believed to be “uncontrolled,” and 48% meet Tier 0 requirements, under the locomotive exhaust emissions standards. Furthermore, the inventory estimates that around 11% of the nationwide short line locomotive fleet meets the requirements of Tiers 1 to 3, and that only around 2% of short line locomotives meet Tier 4 requirements.⁵ ASLRRRA believes that the inventory’s estimates understate the actual size of the U.S. short line locomotive fleet by approximately half. On the other hand, the inventory’s short line locomotive data probably accurately reflects that short lines operate a significant number of uncontrolled and Tier 0 locomotives and very few Tier 4 locomotives.

⁴ Eastern Research Group, Inc., “2020 National Emissions Inventory Locomotive Methodology,” prepared for U.S. Environmental Protection Agency, p. 11, May 19, 2022. Available at: https://gaftp.epa.gov/air/nei/2020/doc/supporting_data/nonpoint/Rail/2020_NEI_Rail_062722.pdf.

⁵ *Id.*

The short line industry’s motive power fleet composition is driven by the hard realities of short line economics, where small capital-intensive operations must be exceedingly cost-conscious to survive. The Associations estimate that, collectively, short lines face a backlog of more than \$10 billion in investment to reach an industry-wide state of good repair, an undertaking that would require the repair or replacement of aging track and structures, such as bridges.⁶ Short lines have in many cases resorted to acquiring and deploying older, used locomotives available on the secondary market. The market for used freight locomotives is driven by the fleet management policies of the six large Class I railroads and, at times, by the profile and carrying capacity of a given short line’s rail network. A locomotive considered toward the end of its economically useful life for long-distance, higher-speed, heavy-haul Class I service can offer many decades more utility to a lower speed, low-density short line operation. Given the smaller volumes of traffic handled, a typical short line is likely to require far fewer locomotive-hours over fewer car-miles per day, compared to the average locomotive deployed in Class I service. As such, the relative share of locomotive costs allocated on a per-carload-handled basis is far higher for short lines than is the case for Class Is.

The practice of “cascading” locomotives from Class Is to short lines, as older Class I locomotive models are replaced with newer motive power, has been an essential element of railroad operating economics essentially from the advent of interstate railroading. Departing from that economic model and requiring smaller railroads to spread the costs of substantially more expensive locomotives over the fewer cars that short lines typically handle on a per-mile basis

⁶ ASLRRRA White Paper, “Estimate of State of Good Repair Backlog for Class II and III Freight Railroads (Short Lines),” p. 4, 25 June 2021. Available at: https://www.aslrra.org/aslrra/document-server/?cfp=aslrra/assets/File/public/news/2021/2021_06_25%20ASLRRRA%20Estimate%20of%20SOGR%20Backlog%20for%20Class%20II%20and%20III%20Freight%20RRs.pdf.

would lead to the ruin of many short lines, if not most. It is a railroad economic model that benefits all concerned – the short lines, the customers of those short lines, whose traffic typically also traverses one or more Class I railroad, and the shippers that depend upon efficient, cost-effective, and safe rail transportation as an alternative to higher-cost truck transportation. Very simply, the older locomotives that CARB is ruthlessly targeting, entirely and indisputably without regard to its impact on interstate commerce, are the backbone of the economy of many smaller businesses and smaller communities that have come to depend upon short line service.

II. Background of the Authorization Request

CARB finalized its In-Use Locomotive Regulation on October 27, 2023, and the regulation became effective on January 1, 2024.⁷ The regulation has four major components applying to all locomotive operators in California, including the 25 short line railroads within the state. The regulation includes a spending account provision that requires locomotive operators to deposit funds into a restricted trust dedicated to prescribed purposes, all geared toward the acquisition of lower or zero-emission locomotives.⁸ The regulation’s “operational requirement” prohibits locomotives older than 23 years old, beginning in 2030, excepting equipment that meets state-specified emissions criteria, notwithstanding the fact that there are many short lines in California and elsewhere that only have locomotives older than 23 years old.⁹ The idling requirement component of the regulation restricts idling to 30 minutes for Automatic Engine Stop Start equipped locomotives with specific exceptions that must be documented for each instance of

⁷ CARB, Final Regulation Order, *In-Use Locomotive Regulation*. 13 C.C.R. §§ 2478-2478.17.

⁸ 13 C.C.R. § 2478.4.

⁹ 13 C.C.R. § 2478.5.

idling over the threshold.¹⁰ Finally, the regulation imposes registration, reporting and recordkeeping obligations for all locomotive operations within the state.¹¹

The Associations actively participated in CARB's rulemaking process from its inception in 2022, tendering numerous comments and in-person testimony along the way. In so doing, ASLRRA presented profound concerns about the proposed regulation, its legality, its impact on interstate commerce, and the extraordinary costs of the proposed regulation's unfunded mandate, pointing out in the process that the regulations CARB had in mind would doubtlessly force many short lines in California out of business. CSLRA also registered its deep concern about CARB's draconian, anti-railroad perspective through the same comment processes, as did numerous individual short lines, shippers and shipper organizations, Class I railroads, and the Association of American Railroads.

For all this effort and engagement in the process, CARB essentially ignored the well-founded concerns of the industry and its stakeholders. CARB did so not because it disputed the factual basis for those concerns, but rather because it dismissed those concerns as irrelevant to CARB's effort to reduce emissions regardless of economic impact, and notwithstanding the harm the regulation presents to an essential, but oftentimes overlooked, driver of the national economy.

III. CARB's request conflicts with the requirements of the Clean Air Act.

Section 209(e)(1) of the CAA prohibits states from adopting or attempting to enforce any standard or other requirement relating to the control of emissions from certain types of new nonroad engines or nonroad vehicles, including locomotives. Section 209(e)(2)(A) of the CAA requires EPA, following notice and public hearing, to authorize California to adopt and enforce

¹⁰ 13 C.C.R. § 2478.9.

¹¹ 13 C.C.R. § 2478.11.

standards relating to the control of emissions from nonroad engines and vehicles otherwise not prohibited under section 209(e)(1) if California determines that its standards will be at least as protective of public health and welfare as applicable Federal standards. Critically, however, EPA shall not authorize CARB's standards if EPA finds that they are – (1) arbitrary and capricious; (2) unnecessary to meet compelling and extraordinary conditions; or (3) inconsistent with CAA section 209.¹² As is discussed below, CARB's proposed standards satisfies none of these three criteria.

A. CARB's proposed standards are arbitrary and capricious. 42 USC § 7543(e)(2)(A)(i).

For all intents and purposes, CARB is attempting to eliminate diesel-powered railroad locomotives through discriminatory emissions charges, artificial and completely contrived maximum locomotive lifespans that ignore a railroad locomotives true economic life. CARB also disregards the limited technology and availability of zero-emissions locomotives. Zero-emissions locomotive technology is far from any industry-wide rollout and is currently limited to pilot trials in selected low-intensity switching applications. It is not a fully formed, off-the-shelf technology, and CARB seems to believe that simply mandating that such locomotive *should* exist and *should* be economical for railroads will magically cause such locomotives to appear in numbers sufficient to meet short line needs at prices that short lines could afford. CARB's blithe disregard for the practical realities of technology readiness is patently capricious.

CARB's regulation also reflects its failure genuinely to consider, much less show any concern for, the downstream impacts of the rulemaking on small railroads, including counter-intuitive modal diversion of rail freight to trucks, or, in at least some cases, the shuttering of rail

¹² 42 USC § 7543(e)(2)(A)(i)-(iii).

service-dependent industry. During the rulemaking process, CARB stated that some “Class III locomotive operators in California may face significant compliance costs. If these businesses are unable to pass on the costs of the Proposed Regulation to customers or if there is a significant change in demand for services, *it is possible that some of these businesses would be eliminated.*”¹³ (Emphasis added). EPA must account for CARB’s deeply flawed assumptions about the importance of, and its callous disregard for, interstate commerce, and consider CARB’s related failure to undertake anything approaching the kind of interest-balancing that the CAA requires. Because of these deep flaws in CARB’s proffered regulation, the absence of interest-balancing in the regulation, and because of their profound impracticality, EPA should recognize CARB’s regulation, again, as being quintessentially capricious.

Additionally, CARB’s emissions restrictions in the regulation for railroad operating museums – the so-called Historic Railroad Low Use Exemption – arbitrarily imposes a limit of 10,000 gallons of locomotive diesel fuel consumption per museum per year.¹⁴ This is nothing more than a nice-sounding round number that CARB pulled out of nowhere with no technical foundation. It is a standard that begs any plausible rationale and reveals complete disregard for operating museums and the history and experiences they offer. The president of the Pacific Southwest Railway Museum – one of CSLRA’s operating museum members – recently stated that with the museum growth that they forecast, annual fuel consumption would easily exceed 10,000 gallons, concluding that a cap on fuel consumption would seriously harm its organization and its ability to survive and grow. Similarly, fellow CSLRA member, the California State Railroad Museum Foundation, explained that the 10,000-gallon limit would block otherwise-planned-for

¹³ Standard Regulatory Impact Assessment (“SRIA”) at 28.

¹⁴ 13 C.C.R. § 2478.13(a)(2).

growth in passenger train excursions using historic equipment, including for school groups from under-served communities. Constraining museum revenue, and growth, thereby imperiling the survival of such museum operations, makes no sense when these museums contribute so very little to California's air quality issues. CARB's Historic Railroad Low Use Exemption is simultaneously arbitrary and discriminatory, considering that there are no similar fuel consumption constraints on classic automobile museums or private owners of classic cars, and, in fact, CARB-recognized smog check requirement exemptions for motor vehicles in California that were manufactured in or before 1975.

B. CARB's regulation is unwarranted and unnecessary to address assertedly compelling and extraordinary conditions. 42 USC § 7543(e)(2)(A)(ii).

Section 7543(e)(2)(A)(ii) is not some sort of blank check that entitles a state regulator to implement whatever ruinous emissions standards it chooses under the cloak of "extraordinary conditions." No one can reasonably deny the air quality issues that exist in parts of California, and in other states. Indeed, the CAA exemption enabling California to promulgate stricter-than-federal standards, subject to EPA approval, reflects Congress' recognition of this unique challenge within the state.¹⁵ But Congress also carefully crafted the EPA exemption standards at issue here to ensure that proposed state measures are reasonable, carefully crafted, and deal fairly and proportionately with the specific emissions sources that a state's heightened standards would target.

CARB's locomotive emissions regulation fails to consider the extraordinarily small relative contribution to air pollution in California by railroads generally, and short line railroads

¹⁵ See, e.g., U.S. Government Accountability Office. GAO-09-249R, *Clean Air Act: Historical Information on EPA's Process for Reviewing California Waiver Requests and Making Waiver Determinations* (Jan. 16, 2009). Available at: <https://www.gao.gov/assets/gao-09-249r.pdf>.

specifically. The regulation also exaggerates the likely emissions reductions to come from other emissions-generating sectors of the economy. Railroads, *including* Class Is, only contribute about 2% of criteria pollutants and 1.9% of GHGs in the transportation sector.¹⁶ Given their percentage of freight rail operations, short line railroads alone produce only a small fraction of 1% of criteria pollutants and GHGs. CARB's aggressive assumptions around the future adoption of zero emissions technology in the trucking sector depend upon fantastical adoption curves that ignore the readiness, affordability, and availability of zero emissions technology. The result is that the regulation, and its application to railroads, including small railroads, depends upon flawed projections of future relative contributions to emissions by the different sectors of the state economy.

C. CARB's regulation does not conform with CAA section 209. 42 USC § 7543(e)(2)(A)(iii).

Short lines are small businesses operating in a capital-intensive industry in which typically 80% of gross income must be allocated to operating expenses and basic upkeep of rolling equipment, track, and structures. A typical California short line grosses between roughly \$8M to \$10M annually and operates a fleet of around eight locomotives. In fact, using such a hypothetical eight-locomotive short line for purposes of perspective and context, consider the following:

After accounting for operations and physical plant upkeep costs, roughly \$1.6M to \$2M per year will be available to a hypothetical short line for profit and capital reinvestment. If the eight short line locomotives are Tier 1 and use 18,000 gallons of fuel annually, CARB's regulation would require that, in year 2026, that short line would need to pay a \$292,562 per locomotive

¹⁶ U.S. Department of Energy, U.S. Department of Transportation, U.S. Environmental Protection Agency and U.S. Department of Housing and Urban Development, DOE/EE-2674, *The U.S. National Blueprint for Transportation Decarbonization: A Joint Strategy to Transform Transportation* 66 (Jan. 2023).

Spending Account deposit; over \$2.3M annually for the fleet of eight. CARB's regulation would clearly put such a short line out of business.

CARB's compliance alternatives – the Alternative Compliance Plan and the Alternative Fleet Milestone Option – also would force numerous California short line out of business, even under a regime where that short line might have access to a locomotive grant program with a 50% match requirement.¹⁷ Both require massive, financially untenable short line expenditures of at least \$3M to \$4M per Tier 4 locomotive. Simple math and basic economics demonstrate that CARB's proposed solution for short lines is to toss them an incentive proposal that is far beyond their fiscal reach. It is, for CARB and the short lines it is targeting, a hollow gesture.

CARB's other alternative, the euphemistically termed Small Business Hardship Extension for companies making \$5M or less per year, would merely postpone the proverbial end of the line for most California short lines for a few years, but offers no real feasible path to emissions reductions beyond short line liquidation.¹⁸ Adding insult to injury, the Hardship Extension, more plausibly, a stay of execution for most California short lines, would require an applicant to provide commercially sensitive financial data subject to the well-known risks of public disclosure under porous "freedom of information" laws.¹⁹

IV. CARB's Petition Has National Implications for Short Line Railroads.

Under the Clean Air Act section 177, states may, after two years, adopt and enforce standards that are identical to California's standards if EPA approves of CARB's authorization request.²⁰ Provisions pertaining to the adoption of California nonroad standards by other states

¹⁷ See 13 C.C.R. §§ 2478.7 and 2478.8.

¹⁸ 13 C.C.R. § 2478.14.

¹⁹ 13 C.C.R. § 2478.14(d)(1).

²⁰ 42 U.S.C. § 7507.

can be found at 40 CFR § 1074.110. Since Section 1074.110’s promulgation, 17 other states have followed California a total of 81 separate times. *See* Figure 2. Where California goes, whether wisely or unwisely, other states may follow, especially if EPA paves the way for that to happen.

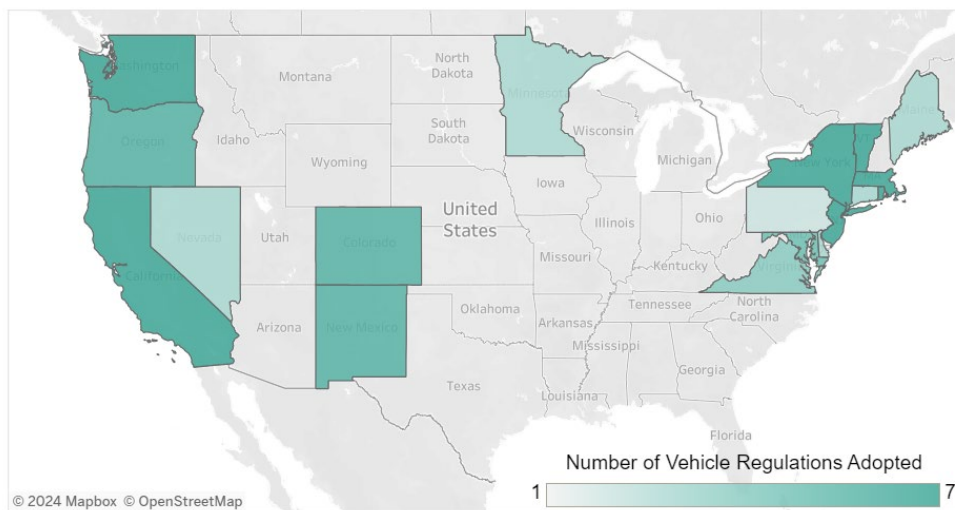


Figure 2: CAA Section 177 states that have adopted CA emissions regulations.

Were EPA to authorize CARB’s locomotive emissions regulation, this agency would enable, and tacitly encourage, other states to follow suit, at the same time that other states will resist such measures out of recognition of the serious commercial impacts that would flow from them. The foregoing map offers a visual sense of the potential “patchwork” regulation of railroad operations that would arise from an EPA endorsement of CARB’s reckless proposal. In actual practice, the conflicting array of locomotive emissions standards wrought by EPA authorization would render the efficient management and deployment of locomotives to be virtually impossible. Many short lines are owned by a short line holding company that owns several separate short lines across the U.S., and, in such cases, the short line holding companies deploy and re-deploy locomotives from one state to another to respond to sometimes seasonal shifts in traffic flows from one commonly controlled short line to the next. And, in such cases, CARB’s proposition that a short line operating in a single state in the furtherance of interstate commerce need not be

concerned about “patchwork” compliance reflects the distressing lengths to which CARB has gone to *not* understand the industry it hopes to regulate or the economics of that industry.

CARB’s attempted foray into matters of railroad common carriage clash unacceptably with other federal mandates under which two competing mandates cannot plausibly be harmonized if CARB’s draconian regulation were EPA authorized. Under the ICC Termination Act (“ICCTA”), Congress has granted the Surface Transportation Board (“STB”) exclusive jurisdiction over “transportation by rail carriers, and the remedies provided. . . with respect to rates, classifications, rules . . . practices, routes, services, and facilities of such carriers.”²¹ This provision expressly “preempt[s] the remedies provided under Federal or State law.”²² The ICCTA preempts all state and local laws and regulations impacting railroad operations “unless” they are (1) “rules of general applicability,” and (2) “do not unreasonably burden railroad activity.”²³ CARB’s regulation is preempted because it directly targets locomotives and it has the intent and effect of managing or governing rail transportation. In light of that consideration, CARB’s resort to the EPA should be recognized as CARB’s attempt to do through misguided federal fiat that which CARB cannot do directly and on its own.

In the end, CARB’s authorization request would force many California short lines into financial ruin, ushering in a domino effect of such short line failures elsewhere if and when other states opted to implement California’s measures as their own. Perhaps those other states would see the wisdom of not following CARB’s lead, but that would only be the case if the California short line industry were permitted to serve as the virtual “canary in a coal mine.” In no way do the

²¹ 49 U.S.C. § 10501(b).

²² *Id.*

²³ *Association of American Railroads v. South Coast Air Quality Management District*, 622 F.3d 1094 at 1098 (2010).

Associations advocate here for scuttling efforts to improve air quality in California. The Associations have been engaged in past dialogue with CARB, and are ready, willing, and able to do so again in a constructive manner. But the measures currently under EPA consideration fail to even remotely accommodate the competing interests that do, indeed, need to work in harmony to reach an air quality solution that fairly and reasonably considers and accounts for all constituencies.

For the foregoing reasons, EPA should deny CARB's request.

Respectfully submitted,



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April 22, 2024