



American Short Line and Regional Railroad Association

TESTIMONY OF
CHUCK BAKER, PRESIDENT, AMERICAN SHORT LINE AND REGIONAL RAILROAD ASSOCIATION (ASLRRRA)
BEFORE THE U.S. HOUSE COMMITTEE ON SCIENCE, SPACE AND TECHNOLOGY
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
HEARING ON “ENVIRONMENTALISM OFF THE RAILS: HOW CARB WILL CRIPPLE THE NATIONAL RAIL NETWORK”
JUNE 13, 2024

INTRODUCTION

As president of the American Short Line and Regional Railroad Association (ASLRRRA), the trade association that represents the more than 600 Class II and III freight railroads (commonly known as short line railroads or short lines) and hundreds of suppliers that support the country’s short line freight railroads, I appreciate the opportunity to appear before you today.

We may not be household names, but short lines are critical in your communities and pivotal in making sure that goods and freight that your constituents rely upon can get to their homes and businesses in a safe, efficient and reliable manner. Smart regulatory action by Congress in the early 1980s helped make this possible, sparking the rebirth of our industry and facilitating the first and last-mile freight service we proudly provide today. Now a new rule in California threatens four decades of economic progress. The rule is rooted in good intentions—reducing greenhouse gas emissions—but it is policy malpractice in its application, a fundamental violation of federalism and interstate commerce, and awash in unrealistic assumptions. Moreover, it takes direct aim at our industry and the critical link in the supply chain we represent. The California Air Resources Board (CARB), the agency issuing the rule, gets one thing right when it predicts the demise of our industry due to the costs of its measure, noting “*it is possible some of these businesses would be eliminated.*”¹ (Emphasis added.)

On behalf of “these businesses”—and the families and communities and thousands of other businesses that rely on them—I am here to sound the alarm. When they go bankrupt, because they cannot afford to comply with the rule, a cascade of effects will ripple across our supply chain, starting in California and stretching to North Carolina, affecting states from Texas to Ohio to Georgia and every other state reliant on the rail network. These effects will be felt in the form of higher costs for shippers and consumers and will be witnessed in the form of more trucks on our roads, greater congestion on our highways, more

¹ Proposed In-Use Locomotive Regulation: Standard Regulatory Impact Assessment (SRIA) at 143 (“Some smaller 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 some of these businesses would be eliminated.”)

particulate matter in our environment—and, ironically, more greenhouse gas emissions in California and elsewhere.

We appreciate the subcommittee’s interest in this matter and in providing an opportunity for our industry to speak about CARB’s misguided measure. We also appreciate the leadership that Chairman Obernolte, many on this panel, and others in Congress have shown in giving voice to our concerns and urging a thoughtful approach to policymaking by the federal actors who have a rightful say in these matters. This includes the Environmental Protection Agency (EPA), which is currently deliberating over CARB’s authorization request. While CARB fails to recognize the competing interests that must be balanced to achieve good policy outcomes, we remain confident that Congress and the federal government can be reasonable and level-headed in working with our industry to ensure that our shared goals—clean air, a thriving freight economy, and a world class supply chain system—are all achieved.

THE SHORT LINE FREIGHT RAIL INDUSTRY

The short line origin story

I recognize some members of the panel may be unfamiliar with our industry, so I am pleased to discuss our contribution to the country’s economy.

Our industry is a great American success story. It was spurred to new life in the early 1980s when smart partial deregulatory action by Congress—the Staggers Act—allowed larger Class I railroads to spin off moribund, outdated rail lines no longer deemed business-worthy. Short line railroads acquired and revived these marginal lines, which were often in very poor condition. They invested mightily, ran scrappy and smart, knocked on every door they could find, and managed to turn them into thriving enterprises while preserving freight rail service for thousands of customers, all while working closely with Class I railroads to ensure the network’s success. Our railroads can be seen here:



Short lines serve communities in every corner of the country

Today, short lines provide first-mile and last-mile freight rail service and are responsible for handling one in five railcars on the national rail system. They ensure that businesses in dense urban centers and isolated rural communities in 49 states that would otherwise be cut off from the North American freight rail network have the access they need to domestic and global markets. We typically serve as the first and final link between suppliers and customers, providing a critical connection in the manufacturing, industrial, agricultural, mining, energy and chemical sectors. For areas of rural and small-town America, we are typically the only connection to the national rail network. Indeed, our presence can be the tipping point for businesses to locate or expand in a region, driving new family-supporting jobs throughout the country in places that otherwise may struggle to attract investment.

Large, mega-corporations we are not. Most of our members are small businesses.² The typical short line employs about 30 people, operates about 80 route miles, and for those in California, makes about \$1.3 million in revenue per year. As a whole, while we operate approximately 30% of the national network (or 50,000 miles of the total system) and handle about 20% of the freight cars in service, our members earn only about 6% of the revenue earned in total by the country's freight railroads.

Nonetheless, our members have a big impact on economic outcomes. Short lines are critical links in the nation's freight supply chain, and are vital engines of economic activity, tied to 478,000 jobs nationwide, \$26 billion in labor income and \$56 billion in economic value-add.³ Altogether, short lines ensure more than 10,000 critical businesses can get their goods and products to market.⁴

Our members provide these customers with a low-carbon freight logistics option that is more environmentally friendly than competing forms of transportation over land, preventing costly damage to pavement that would be borne by often cash-strapped state and local agencies. We are proud of how we relieve traffic congestion, cutting emissions of harmful pollutants while reducing deadly crashes. And we are proud of our reputation for providing attentive, tailored, "white glove" service to a variety of shippers, making the extra effort to ensure that rail service for any shipment size is the right logistics choice and our customers' critical goods get where they are going on time.

Short lines are still investing limited resources to rebuild and revitalize outdated track

Even after decades of investment by short lines—often a third to 40% of their annual revenue, making short line railroading one of the most capital-intensive businesses in the country—the backlog of repairs still looms large. We estimate more than \$12 billion is still needed to allow short lines to fully modernize and meet the country's freight needs. This estimate unfortunately is subject to rise due to the hard-hitting impact of inflation on construction costs and looming new mandates like CARB's.

Short lines in California are critical to their state and symbolize short lines' key role in other states

California, as the nation's largest economy—and one of the world's as well—is no stranger to short lines and typifies our profile in many places. There are 25 short lines in the state. All are Class III operations, but some of these run (either by owning or leasing) over lengthy routes, including the San Joaquin Valley

² While some short lines are owned by larger companies, all must stand on their own financially, and properties that become permanently cash flow-negative are not viable.

³ The Section 45G Tax Credit and the Economic Contribution of the Short Line Railroad Industry, prepared by PWC for ASLRRRA (2018) (PWC report).

⁴ PWC report.

Railroad at around 400 miles. The average California short line operates about 57 route miles. Short lines like Sierra Northern Railway and Mendocino Railway each have a few dozen employees. These small railroads move agricultural products, petroleum products, minerals, chemicals, plastics, lumber and forest products—all critical to the well-being of residents in California and millions beyond the state’s borders. Indeed, some short lines, like the Arizona & California Railroad, operate in both states represented in the railroad’s name, or in the case of Central Oregon and Pacific Railroad, in California and its northern neighbor. These examples emphasize the interstate, integral nature of the short line freight rail economy.

Even short line railroads that operate solely in the state are part of the interstate freight rail network, connecting shippers with customers across the entire country through their Class I railroad connections.

CURRENT SHORT LINE EFFORTS TO ACHIEVE SUSTAINABILITY AND REDUCE EMISSIONS

Rail is already the most environmental way to move goods and freight over land

The nation’s freight rail network is already an environmental achievement. According to EPA data, the nation’s freight railroads account for less than two percent of total transportation-related greenhouse emissions.⁵ Our trucking competitors account for *more than eleven times* what rail produces, or 23% of transportation-related greenhouse gas emissions.⁶ We provide a green way to move critical goods and freight, and we are proud of it. We are strong supporters of EPA’s SmartWay program. We are affiliate members of this undertaking and actively promote participation by shippers and freight stakeholders; through SmartWay, shippers learn about ways to improve their carbon footprint.

Short line service alone keeps 31.8 million heavy trucks off highways and public roads. But there is more to the story for short lines; our railroads are operated by individuals who are part of the fabric of their local communities. Because short lines run short distances and stay local, employees live, work—and *breathe*—in the communities they serve. Many short lines are family-run businesses—the health of their communities is personal to them as is the air in their own homes. Short line freight industry employees and their spouses commute to work, and their children travel to school, using local roads. They are as concerned about congestion and large trucks sharing the lanes as any other member of the traveling public.

Short lines are already all-in on reducing their carbon footprint

While rail is already an environmentally attractive way to move freight, we have no plans to rest on our laurels. We are moving forward aggressively in reducing our carbon footprint even further, pursuing a purpose we share with CARB: improved air quality in California—and for our members outside California, where they operate as well. We do this because it is the right thing for the health of the communities we serve, and also because it is good business sense: there can be efficiencies gained by some emerging technologies that we can harness to improve service for our customers. Our members are currently deeply engaged in several studies and demonstration projects that will help move our industry closer to a zero-emission reality, including transitions to battery-electric locomotives and use of alternative fuels. These efforts are largely limited to yard activities and short haul efforts, as at-scale efforts are not yet feasible. Our current efforts include:

⁵ U.S. EPA: Fast Facts: U.S. Transportation Greenhouse Gas Emissions 1990-2022 (available at <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions>).

⁶ *Id.*

- **Locomotive upgrades.** The USDOT’s Consolidated Rail Infrastructure and Safety Improvements grant program (CRISI) can fund a wide array of rail project types including investments that will drive down the carbon footprint of railroading. Class II and III railroads are among those entities directly eligible to apply for funds. This program is authorized at up to \$1 billion in discretionary appropriations per year on top of the guaranteed funds from 2021 Infrastructure Investment and Jobs Act (IIJA), and we appreciate all who have urged the Appropriations Committee to fund the program at its full authorized amount. The IIJA emphasized eligibility for short lines to upgrade locomotives for emissions purposes and the Federal Railroad Administration (FRA) has done outreach and provided guidance materials encouraging locomotive project funding applications. Short lines are leveraging this program to upgrade locomotives to cleaner technologies or a higher emissions tier. In Fiscal Year 2022, the USDOT awarded funds for four projects that will allow short lines to retire older diesel engines and replace them with new battery powered engines. These include:
 - \$4.1 million to the South Carolina Department of Commerce to help Class III railroad **Palmetto Railways** procure and retro-fit two zero-emission lithium battery electric-powered locomotives and associated charging technology installation;
 - \$4 million to **Tacoma Rail** in Washington to help the Class III railroad replace two diesel-electric switcher locomotives with two zero-emission battery-electric switcher locomotives; and
 - \$8 million to the Kansas DOT to help **Watco** (a short line holding company) convert eight (8) non-regulated (or Tier 0 locomotives) into fully battery powered units.

Beyond CRISI, state agencies in California have been supportive of research and development in the short line industry. Class III railroad **Sierra Northern Railway** is receiving funding from the California State Transportation Agency through a public-private partnership with the Sacramento Metropolitan Air Quality Management District to convert three diesel switching locomotives to hydrogen fuel. The estimated cost for this initiative is more than \$6 million per locomotive for each locomotive. Testing is expected to be completed by the fourth quarter of 2027.

Another California short line, **Pacific Harbor Line**, which operates in the Ports of LA and Long Beach, was the first in the nation to test and procure Progress Rail’s battery electric Joule locomotive, which can perform long haul moves. This is a zero-emission and zero-idle technology and the first of its kind in the United States. It is currently in a 12-month testing program. Technology like this is nowhere near at the scale, affordability or viability necessary for the industry.

In the current combined Fiscal Year 2023-24 CRISI funding cycle, which is in the application review stage at USDOT, the state of California has been supportive of short line locomotive projects. They deployed non-federal match commitments for CRISI applications for several short line locomotive repowering and replacement projects using resources from their Volkswagen Environmental Mitigation Trust through the Combustion Freight and Marine Category.

- **Alternative fuels and fuel economy.** In 2022, our association began research on emissions-reducing technologies like fuel injectors and fuel additives, which short lines have been using for

decades to increase fuel economy. This research initiative has been made possible through a more than \$700,000 Broad Agency Announcement grant with the FRA. This three-year project will gather data and analyze the effectiveness of these technologies on older locomotive models typically used by short lines. Michigan Technological University (Michigan Tech) is performing baseline field testing on a variety of products using locomotives donated by **Lake State Railway** in Michigan and the **Chicago South Shore & South Bend Railroad** in Illinois. The FRA will be donating the use of a government-owned test locomotive to perform more rigorous testing based on the results derived from the baseline data. If a reduction in emissions is verified through the use of alternative technologies like fuel injectors and fuel additives, ASLRRRA will work to promote further use as a cost-effective and small business friendly way to begin reducing emissions on existing equipment currently in use by the railroad.

- **Other demonstration projects.** In Georgia, two short lines, the **Heart of Georgia Railroad** and the **Georgia Central Railway** are applying for waivers to test autonomous battery-electric freight containers developed by Parallel Systems.

Short lines also deploy technologies that can significantly reduce their locomotive emissions profile, such as automatic engine stop/start devices and “shore power” connections, enabling the reduction of time spent idling.

CARB’s IN-USE LOCOMOTIVE REGULATION

The new rule and its four key provisions

For many years, CARB recognized implicitly and explicitly that federal law prevented it from regulating the national freight rail network. But in 2022, the agency formally bucked what was a sound, reasonable and legally grounded position and launched the current regulatory regime. The short line industry and our stakeholders presented unassailable economic concerns while CARB put together the measure. But our points were largely dismissed as irrelevant in the face of CARB’s single-minded aim of forcing an abrupt transition to zero emissions. In 2023, CARB formally promulgated the in-use locomotive regulation, and the new rule came into effect on January 1, 2024. Some compliance dates have already come due and many more will come due in the months and years ahead.

- **A mandate to spend millions on new locomotives.** The rule’s first key tenet requires railroads to set aside funds annually into a forced spending account that can only be used to acquire, lease or rent certain new technologies approved by CARB, largely limited to low-emission and zero-emission locomotives. The amount of funds is related to the operators’ emissions levels. Some short line operators might have to spend several millions of dollars annually to comply with this mandate, likely exceeding the annual revenue of these companies, not to mention any profit. The fees levied on locomotive emissions are deliberately scaled to make operation of locomotives that are fully compliant with EPA’s emissions tiers up to Tier 3 prohibitively expensive and the operation of Tier 4 compliant locomotives very expensive—all locomotives that are compliant with federal law.
- **A requirement that currently useful locomotives stop operating in California.** The rule’s second key tenet is operational in focus, mandating that by 2030, no locomotives for switcher, industrial and passenger use cannot operate in California unless they are less than 23 years old and meet the newest emissions criteria or are zero-emission. By 2035, all locomotives in line-haul use must meet these criteria. This means that locomotives purchased before 2007, which could have

many decades of valuable, useful life left, will be banned in the state. Short line fleets largely consist of used locomotives acquired on the secondary market. It is rare to find a locomotive under a decade old on a short line property. Most are over 23 years old, some far over. Many short lines have only locomotives that are over 23 years old.

- **A prohibition on allowing locomotives to idle for more than thirty minutes.** A third tenet prevents railroads from allowing their locomotives to sit stationary for more than 30 minutes. Railroads must track idling for durations over 30 minutes and document and report the cause for each instance, a substantial administrative burden.
- **A mandate for new recordkeeping.** The fourth and final element requires railroads to report annually to the state specific emissions information and operating practices.

THE CLEAR FLAWS IN CARB'S NEW RULE

I am eager to discuss the cascade of problems awaiting California and the nation's freight economy due to CARB's rule. But first, there are patently offensive problems with the rule as written.

The rule is preempted by federal law

The nation's rail industry has been around 200 years, and it is the poster child for interstate commerce. California's actions effectively regulate the national network and the interstate commerce it supports. It is pure logic that no state should be able to regulate the national rail network any more than it can regulate the national airspace and the interstate commerce that relies on our aviation system. Two centuries of jurisprudence interpreting the Commerce Clause as well as several federal statutes, among them the Interstate Commerce Commission Termination Act (ICCTA), the Clean Air Act and the Locomotive Inspection Act, all clearly render CARB's rule illegal. One does not need a law degree or a deep understanding of rail operations—just a basic understanding of civics from elementary school coupled with a general awareness that freight trains constantly are moving between states on an integrated network—to see the inherent error of CARB's rule.

We understand the proper venue for our legal arguments is in court, and we are engaged in ongoing litigation with CARB alongside our friends at the Association of American Railroads (AAR), who are also alongside me today on this panel. We are confident in those proceedings, but we regret that litigation is necessary to stem regulatory activity that never should have been seriously contemplated in the first place. We also remain eager to work with you to advance legislative efforts and support federal administrative activity that asserts the rightful federal primacy over our country's freight rail network.

The rule mandates adoption of technology that does not exist now in a viable form at a viable scale and may not for years to come

CARB's rule is replete with faulty assumptions about current technological capabilities, the direction they are going, and the scale and timing of new developments.

The rule requires that over the next decade, railroads acquire and use locomotive technology that is low-emission, and eventually, zero-emission. While an admirable goal, this requires the locomotive manufacturing industry to make massive leaps in development in just a few short years. To go from the current situation, in which there are not commercially viable zero-emission freight locomotives in North America, to one in which there are thousands running throughout California and many other states from

which goods and freight might move into and out of California is impossible based on realistic commercial testing and manufacturing timelines.

Locomotives are massive, complex machines designed to haul heavy, voluminous amounts of freight. These are not Tesla EVs moving a few bags of groceries around the neighborhood. The locomotives in use today must be capable of hauling hundreds if not thousands of tons (i.e., trains frequently weigh more than one million pounds) of stone, grain, chemicals and other heavy goods and commodities in demanding weather conditions such as the high heat in the San Joaquin Valley, or through California's Sierra Nevada mountains in the depths of winter, for hours on end. As impressive as advances have been in battery technology in recent years, they pale in comparison to the advances that would be necessary to outfit a locomotive to ensure it can reliably move strings of massive railcars. The most efficient batteries in use today would need to demonstrate a greater than tenfold increase in capacity to achieve CARB's aims—and a swift ability to recharge that is not possible with today's technology. As much as our industry would like to see that happen, there is no path forward yet for that technology to be achieved—just writing it into a state regulation does not make it so.

The same applies to other new technologies, like alternative fuels, hydrogen and hydrogen fuel cells. These efforts, while moving quickly and with our full support and participation, are still in a nascent stage—nowhere near the place necessary to justify scrapping years of investments in diesel engines and stranding thousands of perfectly functional locomotives.

The rule ignores how short lines acquire and use locomotives and serve their customer base

Just as CARB-mandated technology remains many years away from the market, it is farther still from any secondary market where our members could realistically afford to acquire the technology and incorporate it into their operations.

The rail industry engages in a practice known as “cascading,” wherein used locomotives from Class I railroads are sold to short lines, as older Class I locomotive models are replaced with newer motive power. A locomotive that has reached its practical end of life in Class I service can have decades of use left in the less punishing short line operating environment. This has been a bedrock principle of railroad operating economics from the advent of interstate railroading. It is an economic win-win that benefits all involved in rail: the Class Is, the short lines, and the shippers that depend upon efficient, cost-effective, and safe rail transportation as an alternative to higher-cost truck transportation.

California's ban on any locomotive older than 23 years old beginning in 2030 is a completely unworkable proposal for short line railroads that regularly rely on these 40- and 50-year-old locomotives, which are fully compliant with federal law, to keep sometimes barely marginal railroads viable. Departing from that economic model and requiring smaller railroads to purchase dramatically more expensive locomotives would lead to the ruin of many short lines. The difference in capital costs for short lines between acquiring new versus used locomotives is not a few percentage points, it is an order of magnitude. The nature of short lines, that these costs could only be spread over the fewer cars that short lines typically handle on a per mile basis, renders this path completely non-viable.

The rule ignores the operational complexities created by mandating new technology

CARB's approach fails to recognize the levels of complexity that come with upgrading locomotives to progressive tiers. With each tier, maintenance intervals are shorter, maintenance activities are more

elaborate, repairs become more costly and are borne by operators who are still building familiarity with their new technology.

The latest Tier 4 compliant locomotives—also the newest on the market—are dramatically more complex machines than the lower tier locomotives commonly found at short lines, in terms of the engines, electronic controls and monitoring systems. The step from Tier 3 to Tier 4 is notable for these impacts. Locomotive maintenance personnel require substantial additional training, more consumables and spares must be kept on hand, and fleets may even have to be sized differently to address lower-than-expected availability levels. CARB does not seem to have fully considered the effect of this dynamic—it will disproportionately impact smaller operators of locomotives with small maintenance shops.

The rule evades any effort to recognize how it will uniquely affect small businesses

A longstanding body of law, including the Regulatory Flexibility Act of 1980 (RFA), as modified by the Small Business Regulatory Enforcement and Fairness Act of 1996 (SBREFA), requires that federal agencies exercise utmost care and discretion in evaluating how regulations they promulgate affect small businesses. While not bound by these laws, CARB has clearly ignored their wisdom in creating a prescriptive, costly and complex new regulatory framework. Many small railroads are unable to comply with “one size fits all” requirements that are written with larger entities in mind. Each small railroad has a unique operating environment that can differ dramatically from others in terms of scale, market, operating characteristics, capital needs, and price sensitivity of shippers served. It is no wonder that the U.S. Small Business Administration’s (SBA) Office of Advocacy has formally weighed in on CARB’s authorization request to EPA, noting its harms and how it “will disproportionately impact small businesses in the locomotive sector as well as small entities who depend on the locomotive sector.”⁷

THE HARM THE REGULATION WILL BRING

California short lines will face massive new costs with some forced to shutter

As noted above, CARB’s rule imposes new costs that come in the form of massive, mandated capital expenditures on locomotive fleet replacements and upgrades, and on an infeasible timetable.

An average Class III railroad in California, as CARB notes, has yearly revenue of approximately \$1.3 million, with cost of compliance with their new regulation as high as 42% of annual revenue for a short line.⁸ For more than a decade, the spread in cost between an older, lower-tier used locomotive in good condition and a brand-new unit has been dramatic—from a few hundred thousand dollars for used equipment contrasted with over \$4 million for a small-order purchase of a new Tier 4-compliant locomotive. The long-term financial planning of short lines has been constructed around the former; but with whiplash speed, to comply with CARB’s rule, short lines must jettison their time-tested economic model and focus on new, lavishly more expensive machinery than they need.

We estimate that between \$335 to \$427 million overall will be required to upgrade the short line freight locomotive fleet currently operating in California. We estimate short lines operate 172 locomotives that would need to be replaced. This cost over and above the normal cost is due to the difference in cost

⁷ See April 22, 2024 letter from U.S. Small Business Administration to U.S. EPA (available at file:///C:/Users/zradford/Downloads/EPA-HQ-OAR-2023-0574-0149_attachment_1%20(2).pdf)

⁸ SRIA at 95; ASLRRRA also notes CARB’s estimate may be woefully low.

between repowering locomotives versus purchasing completely new locomotives. The cost would be even higher if zero-emission locomotives were required, because, for battery-electric powered locomotives, there is a high probability that small rail operations now using one or two diesel locomotives would require two or three battery locomotives, due to the recharging periods for the batteries requiring more time than simply refueling a diesel-electric locomotive. A small railroad would be required to provide back-up locomotives in case of an issue with the new zero-emission technology that takes it out of service. Unlike a larger railroad that to a degree may be able to reshuffle its locomotive assignments to cover for individual locomotive failures, small railroads do not have that ability and will be required to build in a back-up plan to provide service continuity to their customers.

CARB makes unrealistic assumptions that short lines can pass on these new, mandated compliance costs to their customers. Many short line shippers are small to medium sized businesses themselves and most operate in sectors with razor-thin profit margins; there is nothing to “pass on” to customers that customers will not feel acutely as well. (And some handling carriers like Modesto and Empire Traction Company (MET) do not even have an option to increase rates.) When short line customers are met with new sky-high rail shipping costs, they will be forced to turn to other means, like trucking, to stay afloat. And so a downward spiral can commence, with many short lines seeing costs soar, customers flee or be forced to shutter, revenue nosedive, and bankruptcy or abandonment as the end state.

CARB has included two provisions in the rule ostensibly to reduce the burden on small businesses: the Alternative Compliance Plan and the Small Business Hardship Extension. Both measures enable regulated railroads to delay compliance with some elements of the rule for periods of time, but they entail substantial reporting burdens and neither addresses the basic challenge, that under the rule, inevitably, and on approximately the same terminal timeline, short line railroads will be forced to make a massive investment in Tier 4 locomotives—or zero-emission locomotives, if ever practical and available—that will be many times the motive power investments that would have been expected to support their operations under the legal framework prior to the ruling. The costs imposed by the regulation will remain as insurmountable for small businesses under the Alternative Compliance Plan and with the Small Business Hardship Extensions structure as they would under normal compliance.

For those railroads that do remain in business, safety will suffer, as they will be forced to shelve critical upgrades and maintenance, investing less in addressing the leading cause of derailments on short lines: outdated rail and track. CARB’s mandates will supplant those needs, jeopardizing the efficiency of the railroads’ operations. Sensible environmental upgrades will be halted, too, as intermediate EPA tier improvements that could result in significant reductions in emissions would effectively be disincentivized by CARB in favor of maximalist targets.

With short lines gone, the state’s supply chain and economy will see new struggles, and its residents will encounter new health and safety hazards

Short lines represent about a third of California’s rail network. With the new rule placing those businesses on the brink and pushing some into bankruptcy, California’s supply chain is in for a torrent of trouble.

Businesses will still have goods and freight to ship to market, but with fewer options available, customers will have to increasingly move products via large trucks and commercial motor vehicles. This can be four to five times more expensive than shipping by rail. With the trucking industry able to angle

in on short lines' market, the death spiral for short lines could continue further through what is known as "modal diversion." Even short lines that initially weather CARB's rule will find a freight marketplace where they are slowly supplanted by trucking. With few short lines left, California could see companies flee the state in search of locations with better rail and shipping options.

Aware of this cascade of new costs and dearth of options for shipping their products, it is not surprising that 25 national and 50 state agriculture groups—from California and throughout the country—have come out against this rule, deeming it a "significant danger to U.S. agriculture and the broader U.S. supply chain."⁹ The agriculture industry is joined by hundreds of other business groups, manufacturers, energy firms, defense groups and even the National Association of Counties. Like us, these groups all rightly predict the elimination of shipping options and the increased costs that will come with whatever shipping options remain—costs that will be passed on eventually to consumers, your constituents.

If the sticker shock of higher shipping costs were not enough, Californians could quickly see a staggering number of additional trucks on their roads. We estimate short lines ship about 260,000 carloads per year that could in large measure be forced onto roadways in California, and each rail carload is the equivalent of 3 to 4 trucks. One short line predicts the loss of just its rail traffic will put as many as 100,000 more trucks on California's roads per year.

With more trucks dominating California's public roadways, the state's residents will be greeted with more greenhouse gas emissions in the near term, as even CARB's ambitious regulatory timeline only suggests that the truck fleet will reach zero emissions in 2045. Moreover, Californians will breathe in particulate matter, also known as particle pollution, generated from billions of microscopic pieces of shredded tires that will be generated from all the trucks newly traversing their towns and communities, on roadways they share with big trucks. This pollution may not be as visible to the naked eye as exhaust from trucks, but it is just as real a threat to human health. For a state that already annually spends months choking on wildfire fumes, it seems unwise to invite another form of toxic haze into the mix.

Beyond shredded tires and invisible debris and detritus, the armada of trucks soon to dominate California's roads will undoubtedly impose another cost on Californians: more potholes and worn-out roadways. Heavier trucks—many weighing in at 80,000 pounds—will shorten the lifespan of public roads and bridges throughout the state and shortchange the millions of Californians who will have to shell out ever more in state and local taxes to cover the rising cost of maintenance—these 80,000-pound trucks do exponentially more damage to the roadway than the typical 5,000-pound family SUV.

Finally, the greatest concern is the immediate and direct threat to human life. More trucks on roadways invite the risk of more crashes and collisions with passenger vehicles. According to the most recent data from the National Highway Traffic Safety Administration (NHTSA), in 2022 there were 5,936 deaths on U.S. roadways involving trucks over 10,000 pounds.¹⁰ This was an increase of two percent from the previous year, and a growing share of the more than 42,000 deaths that occur on America's roads. The trend of deaths from large trucks is going in the wrong direction, it should not be made worse still by

⁹ See, e.g., letters from U.S. Chamber of Commerce, National Association of Manufacturers and hundreds of agriculture and industrial groups (docket available at <https://www.regulations.gov/document/EPA-HQ-OAR-2023-0574-0001/comment>).

¹⁰ See National Highway Traffic Safety Administration, Traffic Safety Facts Research Note (April 2024) (available at: <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813560#:~:text=In%202022%20an%20estimated%2038,injured%20from%202020%20to%202021>)

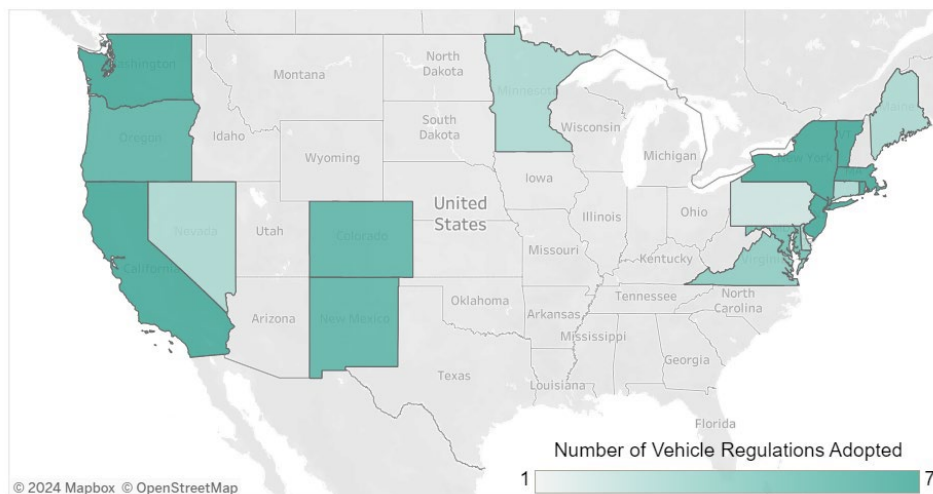
CARB's new directive. While we recognize this may not be CARB's purview, it is literally a matter of life and death for all users of our roadways.

Even a completely electrified trucking industry would still produce many of these new harms. Regardless of any possible rapid adoption of electric trucks in California, these vehicles still generate emissions in the form of substantial particulate matter from tire wear, and trucks (whether diesel, electric or otherwise) still impose wear and tear on pavement and bridges. Their safety threat is not mitigated in any way by their fuel source, rather, it may only be compounded as trucks grow heavier in order to accommodate massive battery packs.

The shockwaves will ripple out nationwide

What will happen in California is just the beginning. Due to the integrated, interconnected nature of the freight economy, other states will feel the pinch of sky-high shipping costs, increased truck traffic, worn-out roads, and more endangered motorists.

But there is more. There are other states that could move quickly to replicate California's new rule, which would catalyze the demise of their short line industries there as well. The map below illustrates states that have adopted some or all of California's criteria pollutant vehicle emissions standards under section 177 of the Clean Air Act. The dark shaded states adopted the standards between 1990 and 2023, the light shaded states have committed to do so by 2026.



Considering this demonstrated past propagation of California requirements for emissions standards, it is reasonable to expect numerous other states to consider enacting new regulations on locomotive emissions modeled on the CARB rule. States that are favorable to additional emissions mandates could be willing to take the California defense of this regulation at face value and proceed promptly with adopting carbon copies of the CARB template.

As we speak, EPA is considering CARB's authorization request. If the EPA approves this request, which we hope and recommend that they don't, it could begin the falling of dominoes.

The effect of the spread of the CARB rule would be to build a disconnected patchwork of state regimes for locomotive emissions that would prevent the movement of locomotives across state borders, even when on the same railroad, creating geographically captive fleets. This would impact Class I railroad operations fundamentally, but also Class II and III railroads as many small railroads also have lines that cross state borders, and regardless all railroads and rail customers depend on the smooth flow of interstate commerce. Such a potential propagation of the CARB rule, following the scale and pattern illustrated above, would dramatically multiply the financial burden projected for California short lines across hundreds of small railroads and thousands of locomotives in other states.

WHAT CONGRESS CAN DO

Call on EPA to deny CARB's request

As noted above, the Clean Air Act requires EPA, following certain administrative procedures, to authorize California to adopt and enforce standards relating to the control of emissions from non-road engines and vehicles otherwise not prohibited under the Clean Air Act if California determines that its standards will be at least as protective of public health and welfare as applicable federal standards. EPA is required to reject such standards, however, if they are (1) arbitrary and capricious; (2) unnecessary to meet compelling and extraordinary conditions; or (3) inconsistent with certain provisions in the Clean Air Act.

We firmly believe the rule fails this standard, and, along with the Class I railroads and thousands of affected stakeholders, we are actively engaged with EPA conveying the clarity of our case and urging the agency to reject California's request. We are appreciative of all on this panel and in Congress who have formally asked for a denial of the request. Your efforts could help sideline this new regulatory effort. EPA's review is ongoing. By calling on the EPA to deny CARB's request, you are asserting proper federal primacy over the national freight network, in general rejecting an unworkable and inefficient patchwork of state-by-state rail rules, and in particular stopping this infeasible counter-productive California rule from becoming the de facto new national rule.

Continue to partner with our industry to advance emissions-reducing technology

An additional problem with CARB's mandate is that there is nowhere near enough public or private sector funding to allow short line railroads to quickly and comprehensively adopt even currently existing technology that could lead to lower emissions. CARB has also drastically overstated federal and state funding opportunities that short lines could avail themselves of in efforts to comply; by our estimate, federal and state programs are hundreds of millions of dollars short of what would be necessary.

Nonetheless, there are important resources that can continue to help our industry move in the direction we all want to go—a rail network that has an even smaller emissions footprint than it has today and is an even more attractive option for the surface transportation of freight. These efforts include the USDOT's CRISI program (noted above), which can provide funding for short lines to upgrade locomotives for emissions purposes, and the other R&D efforts and demonstration projects noted above. Full funding will help further that aim, as well as other safety and reliability goals. We also urge staunch support for the EPA's Clean Ports program and its Diesel Emissions Reduction Act program. And we continue to support varied R&D efforts with federal agencies with jurisdiction of these matters, including efforts with the Departments of Transportation and Energy to research alternative fuels, battery electric locomotives and hydrogen fuel cells. For example, we support DOE's Decarbonization of Off-Road, Rail,

Marine, and Aviation Technologies (DORMA) program. We urge Congress to strongly support this and similar efforts in Fiscal Year 2025.

Railroads, however, cannot be held responsible for ensuring dramatic advances in industries far outside of our control, such as those manufacturing battery power solutions. We support efforts, and urge Congress to support efforts at the DOE and the USDOT, aimed at the basic research and development necessary to advance the industries and technologies that will be necessary for rail and other hard-to-decarbonize industries to use to dramatically reduce our environmental footprint, such as batteries, hydrogen, and renewable diesel fuels.

Support the rail industry

As noted throughout this testimony, compared to the other options, rail is the smarter, more sustainable way to move goods and freight over land, a more cost-effective option for all manner of businesses, and a proven way to reduce mounting deaths on public roads. By supporting this industry, you do great service to your constituents—and simultaneously help advance the goals we all share with CARB: achieving cleaner air. There are a multitude of ways we encourage you to support freight rail: advancing efforts like CRISI to ensure short lines can stay safe, reliable and efficient; avoiding excessive subsidization of less-environmentally friendly shipping alternatives like trucking by allowing heavier trucks or allowing the trucking industry to avoid paying its fair share for use of the highway system; and ensuring that regulations that go forward at the federal or state level make real sense and demonstrate a requisite need.

CONCLUSION

The CARB rule is unlawful, impractical and would impose a terrible burden on small businesses and the shippers they serve—in California immediately, potentially across up to fourteen states in the short term, and it would ultimately impact consumers and shippers across the nation. Our industry greatly appreciates the subcommittee’s close attention to our concerns, and we welcome any opportunity to work together to craft good public policy around emissions that is measured, reasonable, and takes into careful account real and potential impacts on key stakeholders. We look forward to continuing to build on rail’s enormous environmental benefits and working with you, EPA, CARB, and any party interested in advancing realistic and reasonable ways to further reduce emissions in the rail sector.