

**BEFORE THE
CALIFORNIA AIR RESOURCES BOARD**

**COMMENTS ON THE PROPOSED IN-USE LOCOMOTIVE
REGULATION**

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

The American Short Line and Regional Railroad Association (“ASLRRA”), on behalf of itself and its member railroads, respectfully submits the following comments on the California Air Resources Board’s (“CARB”) Proposed In-Use Locomotive Regulation (“Proposed Rule”).

ASLRRA is an incorporated, nonprofit trade association representing the owners and operators of short line and regional freight railroads throughout North America. Short line railroads play a vital role in the transportation network, often providing the first-mile and/or last-mile connection between farmers, energy producers, manufacturers, industrial shippers of all stripes, and the national freight rail network. They operate in nearly every U.S. state, literally serving every region of the country, playing a particularly large role in connecting rural and small-town America to the larger freight transportation network. Approximately 25 short line railroads own (or lease) and operate locomotives within the state of California as part of the

national freight rail network, giving ASLRRRA and its members a significant interest in these proceedings.

ASLRRRA has filed joint comments with the Association of American Railroads (“AAR”) and the California Short Line Railroad Association (“CSLRA”) previously in this rulemaking proceeding.¹ ASLRRRA incorporates those comments herein as well as the additional comments filed by AAR, CSLRA, and the Modesto and Empire Traction Company (“MET”).² ASLRRRA will not restate AAR’s extensive discussion of preemption so incorporated here, but states that short line railroads are an integral part of the national freight rail network and also benefit from federal preemption.³

I. Introduction: Short Line Railroads in the United States.

Short lines are proud to be part of the U.S. freight rail network – the most environmentally-friendly way to move freight over land. Railroads account for roughly 40 percent of U.S. long-distance freight volume but account for only approximately 1.9 percent of transportation-related emissions according to the U.S. Environmental Protection Agency.⁴

¹ See, Attachment 1, Association Comments on CARB NOP (Feb. 11, 2021) and Attachment 2, Association Comments on Draft In-Use Locomotive Regulations (April 23, 2021).

² The Modesto and Empire Traction Company is an ASLRRRA member railroad.

³ Congress has enacted multiple statutes that preempt attempts by state and local authorities to regulate railroad operations, including the Interstate Commerce Act, as amended by the ICC Termination Act of 1995 (“ICCTA”), the Railroad Revitalization and Regulatory Reform Act of 1976 (“the 4-R Act”), the Locomotive Inspection Act (“LIA”), and section 209(e) of the Clean Air Act (“CAA”). 49 U.S.C. § 10501(b); 49 U.S.C. § 11501; 49 U.S.C. § 20701.

⁴ U.S. EPA, *Fast Facts on Transportation Greenhouse Gas Emissions*, <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions> (last updated July 14, 2022).

Additionally, railroads can move one ton of freight nearly 500 miles per gallon of fuel and are 3-4 times more fuel efficient than trucks.⁵

Short line railroads are a critical part of the U.S. freight network. The nation's approximately 600 short line carriers provide the first and last mile service for one in every five rail cars moving each year.⁶ Operating 47,500 route miles, or twenty-nine (29) percent of the freight rail mileage in the U.S., they play a vital role in the transportation network.⁷ Short line rail service provides safe, efficient, competitive, and environmentally responsible access to transportation for nearly 10,000 rail customers.⁸

While almost all are considered small businesses, short line railroads come in many shapes and sizes.⁹ Some short lines are small but have some centralized functions as part of larger short line holding companies, some are larger regional railroads with hundreds of miles of track, and many are small, independent family-owned businesses. Together they represent a diverse, dynamic and entrepreneurial collection of small businesses that make wise use of the limited resources available to them. These small businesses operate the most vulnerable segments of the railroad system and, in many cases, are the only connection for rural businesses to the domestic and global marketplace. They maintain their viability by competing aggressively for business from existing and new customers, investing a significant percentage of their

⁵ Association of American Railroads, *Freight Rail and Preserving the Environment*, <https://www.aar.org/wp-content/uploads/2020/06/AAR-Sustainability-Fact-Sheet.pdf> (October 2022).

⁶ Short Line and Regional Railroad Facts and Figures. American Short Line and Regional Railroad Association, 2017; reprint Dec. 2019. Page 1.

⁷ *Id.*

⁸ *See Id.*; and Webber, Michael. *Freight trains are our future*. Popular Science, May 9, 2019. <https://www.popsci.com/power-trip-excerpt/>. (last visited July 28 2022)

⁹ *See* 13 C.F.R. § 121.201 and North American Industry Classification System code 482112, "Short Line Railroad."

revenues, often 25 percent or more, into their rail infrastructure.¹⁰ They frequently partner with their customers to offer rail transportation alternatives that would otherwise be unavailable to those customers, and they pride themselves on custom, “white glove” service to allow their customers to succeed. The majority of railroads operating across America’s rail network are privately owned and pay for their own infrastructure – a point of departure from other transportation modes that utilize publicly funded roads and waterways.¹¹

Short line railroads are further divided into Class II and Class III railroads.¹² Class II railroads have an average revenue of \$79 million and employ an average of 204 people.¹³ The average Class II railroad operates 48 locomotives and serves 73 customers.¹⁴ Class III railroads, the smallest, represent 84 percent of short line and regional railroad miles. Class III railroads have the widest range of operations. Half of Class III railroads operate fewer than 47 track miles.¹⁵ Class III railroads serve an average of 15 customers per railroad and have an annual total freight revenue of only \$4.7 million. They employ an average of 22 people per railroad.

¹⁰ Facts and Figures, *supra*, at 3.

¹¹ McGurk, Russ. *Five Reasons Freight Rail is an Infrastructure Leader*. GoRail, May 14, 2018. <https://gorail.org/infrastructure/five-reasons-freight-rail-is-an-infrastructure-leader>.

¹² See 49 C.F.R. part 1201, General Instructions § 1-1(a). The Surface Transportation Board groups railroads into one of three classes for purposes of accounting and reporting. The class to which any rail carrier belongs is determined by its annual operating revenues after application of a revenue deflator adjustment. 49 C.F.R. pt. 1201, § 1-1(b)(1). Currently, Class I carriers have annual operating revenues of over \$900 million, Class II railroads have annual operating revenues of less than \$900 million but in excess of \$40.4 million, and Class III railroads have annual operating revenues of \$40.4 million or less.

¹³ Facts and Figures, *supra*, at 13.

¹⁴ *Id.*

¹⁵ Facts and Figures, *supra*, at 9.

Class III railroads have a median of only six locomotives per railroad.¹⁶ All California short line railroads are classified as Class III railroads, and therefore all are considered small businesses.¹⁷

II. Short Line Railroads are Environmentally Friendly.

Short line railroads are an efficient and environmentally sustainable mode of freight transportation. ASLRRRA and its member railroads share CARB's goal of improving the air quality. In fact, the association is currently engaged in a project funded by the Federal Railroad Administration ("FRA") to evaluate non-traditional methods of reducing emissions in short line railroad operations.¹⁸ This project will develop an inventory of the short line locomotive fleet and test a methodology to evaluate short line railroad emissions through field testing of non-traditional fuel technologies, including but not limited to additives and injectors. A greater understanding of the efficacy of these technologies will encourage short line railroads to employ these alternative methods of curbing emissions, which will improve locomotive fuel economy and reduce locomotive emissions. Additionally, ASLRRRA plans to use the results for discussions with the U.S. Environmental Protection Agency ("EPA") SmartWay program for their potential integration into its Rail Carrier Tool Kit.¹⁹

¹⁶ Facts and Figures, *supra*, at 12.

¹⁷ See 13 C.F.R. § 121.201 and North American Industry Classification System code 482112, "Short Line Railroad."

¹⁸ Broad Agency Announcement 2021 FRA-RS-003, Energy and Environmental Sustainability.

¹⁹ See U.S. EPA, *SmartWay Rail Carrier Tools and Resources*. Available at: <https://www.epa.gov/smartway/smartway-rail-carrier-tools-and-resources> (last updated April 6, 2022).

While there is currently no accurate inventory of their locomotives nationwide, the over 600 short line and regional railroads in the U.S. are estimated to operate more than 6,000 switching and line haul locomotives throughout the continental United States and Alaska. Short line locomotive fleets typically use older units in their operations, including many very old EPA unregulated units. Studies underway by individual short lines and ASLRRA's FRA-supported project above to measure the emissions and fuel economy benefits from the application of various technologies will provide the data that short lines need to evaluate the impact of investment in emission-reducing technologies. Based on discussions with short lines and industry suppliers, support for fuel technology testing, data collection, and possible integration into the SmartWay program will encourage much greater adoption of these efficiency-improving and emissions-reducing technologies in the short line locomotive fleet, as well as an improved capability of emissions estimation from the older units and short line locomotive fleet in general.

There are numerous additional examples of current efforts within the short line railroad industry to reduce locomotive emissions. For example, railroads have acquired and retrofitted thousands of new, more fuel-efficient locomotives that emit fewer criteria pollutants and GHGs over the past decade. A few of these newer locomotives are zero emission locomotives, but that is currently only viable for short lines at a pilot program scale and with public entities paying close to 100% of the costs.²⁰ Railroads have implemented operational improvements to reduce unnecessary train and railcar movements, which reduces fuel use. Advances in lubrication techniques have resulted in a reduction in friction, ultimately decreasing drag and saving fuel.

²⁰ See Baker, Chuck. *Short Lines: Part of the 'Green' Solution*. Railway Age, March 23, 2021. Available at: <https://www.railwayage.com/freight/short-lines-regionals/short-lines-part-of-the-green-solution/>. This article describes, inter alia, California's Pacific Harbor Line railroad's EMD Joule battery electric locomotive demonstration.

The installation of idling-reduction technologies, such as stop-start systems that shut down a locomotive when it is not in use and restart it as needed, have resulted in a further reduction of fuel consumption. Railroads throughout the country, and in particular in California, are testing and utilizing biodiesel and renewable diesel in lieu of traditional diesel fuel.²¹ Finally, short line railroads have expanded their use of distributed power, which reduces the total horsepower required for train movements and thus the fuel consumption and emissions.²²

III. Compliance with the Proposed Rule will Eliminate a Number of Short Line Railroads in California.

Despite our shared environmental goals, the short line railroad industry strongly disagrees with the means proposed in CARB's Proposed Rule to purportedly achieve a reduction in locomotive emissions. The cost to comply with the proposed regulatory requirements would cripple and threaten to render a number of short line railroads financially insolvent. As discussed in comments provided by both the AAR and the CSLRA, CARB has dramatically underestimated the cost of the Proposed Rule. While the rule proposes extremely onerous recordkeeping and anti-idling requirements, the spending account provision provides the most severe burden to small businesses.

²¹ See, e.g., Leathley, Aaron. New railroad terminal in Stockton to bring renewable fuels to NorCal. The Record, Aug. 5, 2021. <https://www.recordnet.com/story/news/local/2021/08/05/stockton-railroad-terminal-transport-renewable-fuels-california/5492574001/>

²² ASLRRRA, *Environmental Impact*. Available at: <https://www.aslrra.org/environmental-impact/>.

According to CARB, as of 2020 the average age of short line locomotives in California was 43 years old, with two-thirds of locomotives on short line railroads operating as pre-Tier 0 units, responsible for a combined estimated 1.4 tons of NOx emissions annually.²³ With a Tier 4 locomotive costing up to \$5 million and new zero-emission “Tier 5” battery-hydrogen prototype locomotives costing at least \$7 million each, these new regulations would significantly impact the financial health and sustainability of California’s short line railroads.²⁴ Combined with necessary infrastructure upgrades needed for things like hydrogen fueling or battery recharging, other regulations from local air districts in some parts of the state mandating additional improvements such as exhaust scrubbers in shop facilities, and new indirect emission source rules, these new regulations would significantly destabilize the state’s short line railroad industry, which already operates on relatively small profit margins.²⁵ The result of such a destabilization would be California shippers cut off from rail service, impacting their cost structure and ability to compete effectively in the U.S. and world economies.

CARB estimates that the average small business short line has three Pre-Tier 0 locomotives, uses approximately 10,000 gallons of diesel per locomotive per year, and has annual revenue of approximately \$1.3 million.²⁶ The agency further states that the annual amortized cost for a small business short line to comply with the Proposed Regulation from 2023 to 2050 ranges from -\$26,045 to \$543,806. At maximum, this is approximately 42 percent of their annual revenue. The maximum annual unamortized cost is \$2,700,000, representing 208 percent of their annual revenue. The average unamortized cost is \$122,679, representing 9.4

²³ Standard Regulatory Impact Assessment (“SRIA”) at 28.

²⁴ Caltrans, *Short Line Rail Improvement Plan*, page 11. August 2021. Available at: <https://dot.ca.gov/programs/rail-and-mass-transportation/2022-california-state-rail-plan>.

²⁵ Id.

²⁶ SRIA at 95.

percent of their annual revenue.²⁷ These are staggering numbers and percentages for any small business to absorb for regulatory compliance and unsustainable.

CARB states 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 some of these businesses would be eliminated.*”²⁸ (Emphasis added). While CARB allows that it may issue an extension in the time required to set aside funds into the Spending Account, reduce the Spending Account contribution requirement, or provide an extension of eligibility to operate a locomotive by up to three years, there is no guarantee to any small business in California that CARB will exercise any discretion to avoid its elimination.

CARB erroneously suggests that short line railroads will be able to “pass on the costs” of the Proposed Rule to their customers. Short line railroads compete directly and aggressively with trucks for freight transportation and are also subject to product and geographic competition as their customers react to proposed increased transportation rates - given this reality, regulatory costs cannot reliably be passed on to the customer. If any short line railroad is eliminated because of its inability to comply with CARB’s Proposed Rule, it will be to the detriment of the safety of the motoring public and the citizens and businesses of California, as discussed further below.

During the March 30, 2021, In-Use Locomotive Regulation Workshop, short line railroad representatives expressed concern to CARB staff regarding the extreme potential cost to a small business to comply with the spending account provision of the Proposed Rule. CARB staff

²⁷ Id.

²⁸ SRIA, page 143.

would not accept industry statistics or aggregated data, and instead suggested that individual railroads provide CARB with their confidential financial records so that CARB could determine what a short line railroad could afford to comply with the Proposed Rule, specifically with the spending account component. Absent any promises from CARB regarding the ability of the agency to protect a private company's highly sensitive financial information from public disclosure, not to mention the complete audacity of such a request, it is not surprising that short line railroads in California have not offered their private and specific financial information to CARB.

In lieu of the private finances of a short line railroad in California, ASLRRRA submits for consideration in this proceeding Tacoma Rail's 2021 Annual Financial Report.²⁹ A Class III railroad in Washington State, Tacoma Rail is wholly owned and operated by Tacoma Public Utilities.³⁰ With 16 locomotives, more than 100 employees, and 140 miles of track, this Class III railroad is significantly larger than some of the short line railroads in California, half of which have less than 10 locomotives and operate less than 25 miles of track.³¹ Despite its larger size, Tacoma Rail operates within very modest margins. In 2021, Tacoma Rail reported a change in net position of \$0.9 million, compared to \$4.8 million in 2020, a decrease of \$3.9 million.³²

²⁹ Tacoma Rail, Tacoma Public Utilities, 2021 *Tacoma Rail Annual Financial Report*. May 19, 2022. Available at: https://www.cityoftacoma.org/UserFiles/Servers/Server_6/File/cms/Finance/Financial_Reports/Annals/RailAnn21.pdf

³⁰ See Tacoma Rail, "Our History." Available at: <https://www.tacomarail.com/about/history/>. Tacoma Rail is an ASLRRRA member railroad.

³¹ See Short Line Improvement Plan, *supra*, at 14-17; and see AAR, "Freight Railroads in California," January 2021. Available at: <https://www.aar.org/wp-content/uploads/2021/02/AAR-California-State-Fact-Sheet.pdf>.

³² Tacoma Rail Annual Financial Report, *supra*, at 5.

If a railroad with Tacoma Rail's reported financials were located in California, assuming its 16 locomotives were pre-Tier 0 and each utilized 10,000 gallons of diesel annually, this railroad would be forced to place approximately \$3.4 million annually into its spending account.³³ Given the fact that the example railroad only had a change in net position of \$0.9 million in the previous year, the railroad would be short \$2.5 million for regulatory compliance, not including any recordkeeping or other compliance costs. This seems somewhat absurd on its face and should give even the most aggressive regulator serious pause. Even if the railroad qualified for CARB's three-year small business hardship exemption, after three years, this railroad would still be short \$700,000 to comply with the spending account contribution for the first year. As MET states in its comments, "our railroad, along with others will have to make a choice to invest in normal safety and infrastructure maintenance and improvements or add these funds to the savings account. *We simply cannot afford to do both.*" (Emphasis added).

IV. This Proposed Rule Will Dramatically Decrease Highway Safety in California.

Should CARB's Proposed Rule become final, much of the freight carried by short line railroads will continue to be shipped through California even as the short lines themselves are forced to cease operations given their inability to meet the financial burdens imposed by the rule. This will inevitably result in a modal shift of freight traffic from rail to its competing mode of truck transportation. The freight that had previously moved by rail will move to truck and the

³³ Assuming pre-Tier 0 locomotives that use 10,000 gallons of diesel annually, as speculated by CARB for the "average small business" in California. SRIA at 95.

highways leading to an increase in accidents, injuries, and fatalities, not to mention an increase in cost to the public to maintain the road network.³⁴

The most recent data from the U.S. Department of Transportation with a direct comparison of fatalities per billion ton-miles is incorporated in the Federal Railroad Administration’s 2010 National Rail Plan Progress Report to Congress and as shown below – it is illustrative of the vast difference in safety between shipping by rail vs. truck.³⁵ This difference has only grown over the past twelve years as rail safety has consistently improved and truck safety has declined.

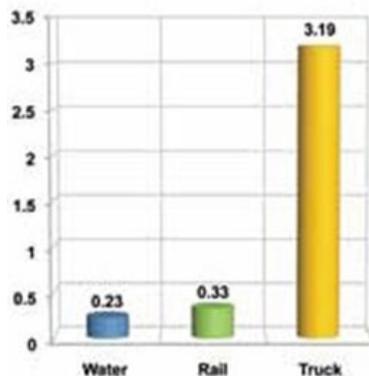


Figure 1: Fatalities (per billion ton-miles) in 2008³⁶

A study of FRA safety data shows that train accidents per million train-miles have dropped 33 percent since 2000 and five percent since 2020.³⁷ On the other hand, the total estimated fatalities in crashes involving at least one large truck, increased by 13 percent from

³⁴ See, e.g., AAR, *Oppose Longer & Heavier Trucks on Our Nation’s Roads*. October 2022. Available at: <https://www.aar.org/wp-content/uploads/2020/08/AAR-Truck-Size-Weight-Fact-Sheet.pdf>.

³⁵ Federal Railroad Administration (2010). *National Rail Plan, Moving Forward: A Progress Report*. Available at: https://railroads.dot.gov/sites/fra.dot.gov/files/fra_net/1336/NRP_Sept2010_WEB.pdf

³⁶ Id. at 7.

³⁷ Sources: <http://safetydata.fra.dot.gov/officeofsafety/publicsite/summary.aspx>. Note: Excludes grade crossing accidents. Data for 2021 is preliminary, as of March 2022.

2020 to 2021. This estimate is based on involvement of large trucks, both in commercial and non-commercial use at the time of the crash. Nationwide, in 2008 there were 4,245 truck-involved fatalities, and in 2021, there were 5,601 fatalities, an increase of nearly 32 percent.³⁸ On the other hand, freight trains incur 14 percent of the fatalities that large trucks do per trillion ton-miles.³⁹ Additionally, freight trains incur about 3 percent of the injuries that large trucks do per trillion ton-miles.⁴⁰ The freight railroad rate of hazmat incidents per billion ton-miles is about 7 percent that of trucks, and railroads incurred no fatalities from 2012 through 2020 due to hazmat while trucks incurred 81.⁴¹

Eliminating short line freight rail service in California will decrease safety to the motoring public on California roadways by substantially increasing a substantial the number of trucks on the roadways. In fact, it would have taken approximately 9.3 million additional trucks

³⁸ National Highway Traffic Safety Administration, *Early Estimates of Motor Vehicle Traffic Fatalities and Fatality rate by Sub-Categories in 2021*. DOT HS 813 298. May 2022. Available at: <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813298>.

³⁹ Sources: Freight rail-related fatalities from FRA website <https://safetydata.fra.dot.gov/OfficeofSafety/publicsite/Query/TenYearFreightPassengerOperationsOverview.aspx> 2018. Large truck-related fatalities from NHTSA Traffic Safety Facts, <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813021>. Both rail and large truck ton-miles in 2018 from Table 1-50 USDOT BTS National Transportation Statistics at <https://www.bts.gov/topics/national-transportation-statistics> (Truck ton-miles unavailable for 2019-2020.) Large trucks are trucks with a gross vehicle weight rating (GVWR) greater than 10,000 pounds.

⁴⁰ Sources: Freight rail-related injuries from FRA website, at <https://safetydata.fra.dot.gov/OfficeofSafety/publicsite/Query/TenYearFreightPassengerOperationsOverview.aspx> 2018. Large truck-related injuries from USDOT, FMCSA, Large Truck and Bus Crash Facts, 2018 Trends Table 7, at <https://www.fmcsa.dot.gov/safety/data-and-statistics/large-truck-and-bus-crash-facts-2017#A5> Both rail and large truck ton-miles in 2018 from Table 1-50 USDOT BTS National Transportation Statistics at <https://www.bts.gov/topics/national-transportation-statistics> (Truck ton-miles unavailable for 2019-2020.).

⁴¹ Source: USDOT, Pipeline & Hazardous Materials Safety Administration, Hazardous Materials Incident Fatalities By Year & Mode, from: <https://hip.phmsa.dot.gov/analyticsSOAP/saw.dll?Dashboard> for 2012 through 2020, as of March 2022. PHMSA is experiencing a backlog in processing 2021 data as of March 2022.

to handle the 167.4 million tons of freight that moved by rail in California in 2019.⁴² While much smaller than their Class I partners, short line railroads contribute to a significant portion of this movement. According to the 2018 California State Rail Plan, California’s short line railroads operate 1,296 route miles, or nearly 33 percent of the California railroad network.⁴³

As an example, in its comments, Class III railroad MET states, “our largest customer in this segment ships approximately 265 cars per week, Monday - Friday. Converting these shipments to truckloads, equates to approximately 1,100 truckloads per week.” If the Proposed Rule is passed, threatening the economic viability of short line railroads, the elimination of this single short line railroad would add 57,200 trucks annually to the California highway system, leading to additional fatalities, injuries, and property damage. Given the large percentage of miles of short line freight operation, the multiplier effect of a modal shift could potentially be catastrophic to the safety of California highways. It would also increase maintenance costs and reduce the expected lifetime of the roadbed on the California Highway system, putting a higher burden on the California taxpayer.⁴⁴

V. CARB Should Exclude Short Line Railroads from This Proposed Rule.

Given the negative effects of the Proposed Rule raised here and in the comments so incorporated, and as better options exist to make meaningful environmental progress, CARB

⁴² Association of American Railroads, *Freight Rail in Your State*. aar.org/data-center/railroads-states/ (last visited November 6, 2022).

⁴³ Caltrans, *California State Rail Plan: Connecting California*, page 85. Available at: <https://dot.ca.gov/programs/rail-and-mass-transportation/california-state-rail-plan> (last accessed November 6, 2022).

⁴⁴ Oppose Longer & Heavier Trucks on Our Nation’s Roads, *supra*.

should withdraw this rulemaking. If CARB continues to pursue regulating the emissions from locomotives, it should completely exclude short line railroads. Instead of eliminating Class III railroads in California, as CARB has predicted could occur, given their inability to pass on the high costs of the Proposed Rule onto their customers, the agency should encourage short line railroads to voluntarily adopt strategies to reduce locomotive emissions, including investing in new locomotives when economically feasible and participating with industry efforts to test and invest in methods to reduce emissions.

A great example of a successful California effort to reduce locomotive emissions is the Carl Moyer Memorial Air Quality Standards Attainment (Carl Moyer) Program, which has been one of the primary tools to enable smaller railroads to upgrade their locomotive fleet.

Unfortunately, this program will be unavailable if the Proposed Rule is finalized as drafted.⁴⁵

Instead of compelling short line railroads to comply with the Proposed Rule, CARB should promote the Carl Moyer Program, and other state and federal funding opportunities for small businesses to improve their locomotive fleets. Short line railroads qualify for a number of federal grant programs that could cover improvements their locomotive fleets, including FRA's Consolidated Rail Infrastructure and Safety Improvements Program and EPA's Diesel Emission Reduction Act Funding, both of which have already benefitted short lines in California.⁴⁶

⁴⁵ See Carl Moyer Program Guide, Section 2: General Criteria ("Covered emissions reductions obtained through Moyer Program projects must not be required by any federal, State, or local rule or regulation, memorandum of agreement, memorandum of understanding, settlement agreement, mitigation requirement, or other legal mandate.").

⁴⁶ See, e.g., FRA, Consolidate Rail Infrastructure and Safety Improvements (CRISI) Program FY2021 Selections, pages 6-7. Last updated June 2, 2022. Available at: <https://railroads.dot.gov/elibrary/consolidated-rail-infrastructure-and-safety-improvements-crisi-program-fy2021-selections>. See also EPA, *EPA Awards over \$8 Million for Diesel Emissions Reduction Projects in California*. Last updated December 27, 2021. Available at: <https://www.epa.gov/newsreleases/epa-awards-over-8-million-diesel-emissions-reduction-projects-california>.

As aptly stated by Caltrans in its own “Short Line Rail Improvement Plan, which is being integrated into Caltrans’ 2022 California State Rail Plan, “while environmental stewardship and sustainability is justifiably a top priority for the state of California, it is essential to ensure that short line railroads have access to the resources needed to not only survive but to be an active partner in reducing the emissions of the larger transportation sector as a whole.”⁴⁷

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ASLRRA appreciates the opportunity to provide comments on the Proposed Rule and urges CARB to either withdraw its Proposed Rule or completely exempt short line railroads from its requirements.

Respectfully submitted,



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⁴⁷ Short Line Rail Improvement Plan, *supra*, at 11.

ATTACHMENT 1

BEFORE THE
CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PREPARATION OF A DRAFT SUBSTITUTE
ENVIRONMENTAL DOCUMENT: IN-USE LOCOMOTIVE
REGULATION

COMMENTS OF THE ASSOCIATION OF AMERICAN RAILROADS, THE
AMERICAN SHORT LINE AND REGIONAL RAILROAD ASSOCIATION,
AND THE CALIFORNIA SHORT LINE RAILROAD ASSOCIATION

The Association of American Railroads (“AAR”), the American Short Line and Regional Railroad Association (“ASLRRA”), and the California Short Line Railroad Association (“CSLRA”) (jointly, “the Associations”), on behalf of themselves and their member railroads, respectfully submit the following comments on the California Air Resources Board’s (“CARB”) October 27, 2020 Notice of Preparation of a Draft Substitute Environmental Document (“Locomotive NOP”) for its proposed In-Use Locomotive Regulation (“Proposed Rules”).¹

AAR is a non-profit trade association whose membership includes freight railroads that operate 83 percent of the line haul mileage, employ 95 percent of the workers, and account for 97 percent of the freight revenues of all railroads in the United States. AAR also represents passenger railroads that operate intercity passenger trains and provide commuter rail service.

¹ Notwithstanding Governor Newsom’s Executive Orders N-54-20 and N-80-20, the Associations have not been able to find any evidence that CARB timely posted the Locomotive NOP on its “public facing website,” nor did it conduct outreach to the Associations and their members, which are interested parties under California law. Accordingly, the Associations did not receive timely notice of the NOP and were not able to submit comments before November 26, 2020 deadline set by CARB. The Associations appreciate CARB’s willingness to review and consider these comments as timely, as confirmed by Ms. Cari Anderson. See email from Cari Anderson, CARB, to Peter Okurowski, CEA, Jan. 14, 2021 11:13 AM .

ASLRRA is a non-profit trade association representing the interests of approximately 500 short line and regional railroad members and railroad supply company members in legislative and regulatory matters. Short lines operate 50,000 miles of track in 49 states, or approximately 30% of the national freight network. CSLRA is a non-profit trade association promoting best business practices and providing legislative and regulatory advocacy and public outreach for 25 California short lines. The Associations' members own (or lease) and operate locomotives within the state of California and are part of the national freight rail network. The Associations and their members therefore have a significant interest in this proceeding.²

I. CARB'S CEQA ANALYSIS MUST CONSIDER EACH ELEMENT OF THE PROPOSED RULES INDEPENDENTLY.

California's Environmental Quality Act ("CEQA") requires the preparation of an environmental impact report ("EIR") in order "to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided." Cal. Pub. Res. Code ("PRC"), § 21002.1; *see also* 14 Cal. Code Regs. ("CEQA Guidelines") §§ 15000-15387. The California Air Resources Board ("CARB") implements this requirement through the preparation of an Environmental Analysis ("EA") under its certified equivalent program. *See* 17 CCR §§ 60000-

² The Associations and their members submit these comments without prejudice to their position that CARB lacks legal authority to impose these regulations, which are preempted by federal law. The Associations also renew their objection to this Locomotive NOP on the basis that CARB has not provided the public with the draft language it intends to include in the Proposed Rules. As a result, the Associations (and all other interested parties) lack detail with respect to these Proposed Rules that is necessary to fully provide CARB with informed and specific comments. The Associations reserve the right to supplement these comments when draft regulatory language is made available by CARB.

60008. Nonetheless, the underlying substantive requirements of CEQA must be met by CARB's EA. 17 CCR 60004(b).

CEQA defines a "Project" as "any activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect change in the environment" and a "project-specific effect" as "all the direct or indirect environmental effects of a project other than cumulative and growth-inducing effects." PRC §§ 21065, 21065.3; *see also* 17 CCR 60004(c) (incorporating CEQA definition of "project"). CARB must include in its EA a description of the project, including a "statement of the objectives sought by the proposed project" as well as a "general description of the project's technical, economic, and environmental characteristics[.]" CEQA Guidelines § 15124(b), (c). CARB must reject a proposed project "if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." PRC § 21002; *see also* CEQA Guidelines § 15126.6; 17 CCR § 60004.2(a)(5). Further, CARB must consider "qualitative factors as well as economic and technical factors and long-term benefits and costs, in addition to short-term benefits and costs[.]" *Id.* § 21001(g); *see also* 17 CCR § 60004.2(a)(3).

Here, CARB has prepared a single NOP for four separate and independent elements that it includes under the umbrella of "In-Use Locomotive Regulation." Each of these four elements would apply to persons or entities operating locomotives in California:

- a locomotive emissions tax (referred to in the public workshops as a "spending account");³

³ CARB continually attempts to characterize its proposed tax on locomotives as a "spending account." *See* CARB Workshop Slides Day 2 (10/28/2020), *available at* <https://ww2.arb.ca.gov/sites/default/files/2020-12/2020.10.28%20841AM%20Workshop%20Slides%20Day%202%20-%20Remediated.pdf>. This characterization is wholly inconsistent with the reality of what CARB is proposing – to "require mitigation to

- a ban on the operation of federally certified locomotives that have been in operation for more than two useful lives (approximately 23 years);
- the adoption of a new “30-minute limit on unnecessary idling;” and
- extensive new reporting requirements.

Locomotive NOP at 3.

While all are part of CARB’s proposed “In-Use Locomotive Regulation” project, each of the four different elements in the Proposed Rules regulates different activities, with different alternatives and different impacts and different technical and economic characteristics. The analysis required by CEQA cannot be effectively accomplished unless CARB considers the impacts of each element of the Proposed Rules independently in the EA. The Associations remain concerned that CARB is proposing a scope of review that risks improperly lumping each distinct element of the Proposed Rules together and assuming their impacts are similar, when the real-world impacts can be disparate and each significant in its own right.

II. CARB MUST CONSIDER ALL REASONABLY FORESEEABLE IMPACTS OF ITS PROPOSED RULES.

CEQA mandates that an NOP must provide responsible, trustee and other public agencies “with sufficient information describing the project and the potential environmental effects to enable the responsible agencies to make a meaningful response,” including a description of the project and its probable environmental effects. CEQA Guidelines 15082(a)(1). CEQA further requires that CARB include in its ultimate environmental analysis any significant environmental benefits, irreversible environmental changes, and growth-

be paid for locomotive emissions” and to “convert mitigation funds to cleaner locomotives.” *Id.* at 41. CARB’s proposal amounts to a discriminatory tax being levied against the locomotive industry.

inducing impacts of the project. 17 CCR § 60004.2(a)(4); *see also* CEQA Guidelines § 15126.

Here, the NOP's project description is so general and conclusory that reviewing agencies and the public have insufficient information to allow a meaningful analysis of all potential impacts of the project.

A. The Locomotive NOP's Descriptions of the Four Elements are Sufficiently Vague so as to Prevent Meaningful Analysis of the Impacts.

CEQA requires that a project description include enough information so that the impact analysis contains a meaningful assessment of the project's impacts. Specifically, Section 15124 of California's CEQA Guidelines defines the types of information that must be included in a project description, including "a statement of objectives sought by the proposed project" that will allow CARB to "develop a reasonable range of alternatives to evaluate the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations." CEQA Guidelines § 15124. The statement of objectives must include the underlying purpose of the project. Moreover, the project description must reflect the specifics of the proposed project, conveying "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." *Id.* § 15378(a) (definition of "project").

Here, CARB has simply stated that it is:

proposing a regulatory strategy to reduce in-use emissions of all locomotives – Class 1, Class 3, Military and Industrial, and Passenger – and to encourage the adoption of Tier 4 or higher emission standard technology to meet air quality, climate, and public health protection goals.

Locomotive NOP at 3. The NOP then provides only a cursory overview of several proposed regulatory concepts, leaving reviewing agencies unable to discern how each concept is to be

implemented in proposed regulatory language. Locomotive operators would be required to “annually report and mitigate their locomotive emissions,” which CARB proposes will occur through taxing regulated entities and then “placing funds into a spending account.” Regulated entities would be required to use this “spending account” to purchase new locomotives meeting “the current cleanest emissions standard” or, alternatively, “cleaner near-zero or zero emission technologies in the demonstration/pilot phases of development.” Which entities would be required to buy new locomotives, and what the full costs of that purchase might be under an ever-changing “current cleanest emissions standard” target, are examples of important pieces of information not provided in the NOP, but needed by reviewing agencies and the public. CARB proposes to ban certain remanufactured locomotives from California but provides no explanation of how this ban could be structured to avoid preemption under applicable federal locomotive regulations. CARB plans to “adopt the federal requirements” on locomotive idling with certain exceptions “based on the exceptions in the federal idling limit rule,” but does not explain which federal exceptions would and would not be adopted, leaving the reader unable to tell what significant impacts may flow from the adoption of some of the federal exceptions but not others. Further, CARB’s description of this proposed regulation changes on a regular basis – from adopting EPA’s existing regulation to going beyond the scope of EPA’s regulations (and beyond CARB’s authority under federal law).

This is insufficient information upon which to base the selection of alternatives, gauge potential impacts, or otherwise understand each disparate element of the Proposed Rules. For example, selected alternatives for passenger locomotives are unlikely to be applicable in the military or freight context. Similarly, simply providing a high-level description of the regulatory

concepts is insufficient to evaluate costs and impacts without specific requirements. Draft regulatory language is required for this type of analysis. But as it stands, CARB's Locomotive NOP is so vague that it does not allow stakeholders to determine the appropriate scope of CARB's CEQA analysis.

B. CARB Must Ensure that a Robust Analysis of All Impacts Associated with Each Element of the Proposed Rules is Conducted.

CARB must consider the impacts associated with each of the four individual elements of the proposed regulation: the locomotive emissions tax, a ban on the operation of federally certified locomotives that comply with all federal requirements and that have been in operation for more than approximately 23 years, the adoption of a new California-only "idling limit," and extensive new reporting requirements. These impacts must include transparent calculations, with supporting documentation, showing the assumptions used by CARB to estimate the anticipated emission benefits for each rule element. For example, CARB must demonstrate the expected emissions benefits for the locomotive tax given that CARB has not proposed, and cannot legally require, that an interstate railroad simply purchase new locomotives because CARB commands them to (or even that, if such locomotives are purchased, that they must be operated within California). As such, even if such a locomotive tax were legal, it would not lead to any foreseeable emissions reductions but would simply impose a significant cost on the rail industry.

CARB must also include an assessment of the environmental impacts of a modal shift from rail to truck in response to this increased cost of freight transportation by rail. The Associations are unaware of a similarly comprehensive CARB strategy to regulate the trucking industry through a bundle of taxes, reporting requirements, and new idling limits distinct from

those imposed at a federal level. As such, costs to the railroad industry will increase significantly while no parallel costs are imposed on the trucking industry. This may result in a modal shift by shippers from rail to truck and may cause increased congestion on California highways and roads, increased wear and tear to highway infrastructure, increased traffic accidents, and other reasonably foreseeable costs that must be considered as part of CARB's impacts analysis.

In this assessment, CARB must include an accounting of all emissions associated with truck traffic that may reasonably be expected to increase due to modal shifts attributable to the costs of complying with each individual element of the Proposed Rules and to the aggregate cost increases resulting from compliance. Therefore, the assessment must include emissions of greenhouse gases and all sources of on-road vehicle emissions (including particulate emissions attributable to brake and tire wear). In conducting this assessment, CARB should update its previously published analysis regarding the relative emissions between freight rail and truck to reflect the obvious omission of particulate emissions from brake and tire wear on trucks and the startling omission of greenhouse gases from the "Truck versus Train" analysis posted on CARB's website and presented during the public workshops.⁴ AAR has previously provided comments on these omissions and suggested corrections to this analysis.⁵

Finally, CARB's project description in the NOP does not fairly convey to the public the likely effect in neighboring states (and corresponding impacts in California) because of an

⁴ DRAFT Truck vs. Train Emissions Analysis | California Air Resources Board, *available at* <https://ww2.arb.ca.gov/resources/fact-sheets/draft-truck-vs-train-emissions-analysis>, last accessed Jan. 25, 2021.

⁵ See email from Peter Okurowski, CEA to Cari Anderson, CARB, Sep. 23, 2020 11:08 AM.

interruption of the free flow of interstate rail traffic as a result of its proposed ban on operating certain federally certified locomotives in California. These locomotives will not be retired – rather, if the ban is successfully implemented, it will interfere with interstate rail traffic because it will require locomotive switching at or near the California border. Locomotives banned from operating in California will increasingly operate in other areas of the United States, Canada, and Mexico. These impacts are clearly foreseeable and should be quantified in the EA.

As CARB forecasts the expected impacts of its Proposed Rules, the Associations recommend that it utilize at least three different freight growth rates for each of its impact scenarios. For example, CARB should include a low, moderate, and high growth rate to provide a more accurate understanding of the potential impacts of its Proposed Rules. Including only a single forecasted growth rate may result in gross under- or overestimation of impacts and will lessen the usefulness of the document. The Railroads have previously provided CARB with comments regarding alternative growth forecasts for locomotive freight traffic. To date, these comments have been largely ignored. However, the Associations continue to recommend that CARB look at sources such as the U.S. Department of Energy’s 2020 Annual Energy Outlook. The Associations and their members renew their offer to work with CARB on setting realistic growth rates for CARB’s CEQA analysis.

III. CARB MUST CONSIDER A RANGE OF REASONABLE AND FEASIBLE ALTERNATIVES.

Under CEQA, CARB must provide sufficient information in the NOP about the project and its potential environmental effects to allow responsible and other reviewing agencies “to make a meaningful response.” CEQA Guidelines § 15082(a)(1). Among other things, reviewing

agencies must be provided enough information in the NOP to allow them to identify “significant environmental issues and reasonable alternatives and mitigation measures” for the proposed project. *Id.*; *see also id.* § 15082(b)(1). CEQA further requires that CARB include in its ultimate environmental analysis “a range of reasonable alternatives” to the proposed project. CEQA Guidelines § 15126.6. Alternatives “shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects.” *Id.* § 15126.6(g). This analysis must include the “no project” alternative. *Id.* Here, the NOP improperly suggests to the reader that CARB will consider certain alternatives that are not legal or feasible and exclude from its review other potentially feasible alternatives.

A. In Considering the Feasibility of Alternatives, CARB Must Address Technological and Legal Infeasibility.

The U.S. Environmental Protection Agency [“EPA”] is the federal agency responsible for establishing emissions standards for new locomotives and new engines. 42 U.S.C. § 7547(a)(5). EPA has codified the definition of “new” locomotives to include both those newly manufactured *and* those existing locomotives that are remanufactured or rebuilt. CARB’s NOP suggests that it will attempt to ban the use of locomotives that comply with all EPA regulations and standards. *See* 40 C.F.R. Parts 85, 89, and 92. The Clean Air Act does not delegate this authority to CARB and, indeed, EPA has already occupied the field in this area with no room for CARB to pass its own rules and standards on a national rail network. Should CARB opt to proceed with its attempts to impose a new definition of a locomotive’s “useful life” at odds with the federal definition, it must first seek a waiver from EPA.

CARB’s certified CEQA program requires it to include in its ultimate EIR or EA an analysis of “feasible” alternatives to the proposed project. *See* 17 CCR § 60004.2(a)(5). CEQA defines

“feasible” as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.” See PRC § 21061.1; CEQA Guidelines § 15364. Here, CARB’s CEQA analysis must consider the feasibility of a waiver being granted and, if granted, whether the waiver would be granted within the timeframes outlined by CARB for its Proposed Rules.⁶

In addition, CARB has failed to provide any basis for its conclusion that it is technologically feasible to remanufacture all locomotives (both line haul and low-horsepower locomotives) to a Tier 4 standard or higher. In cases such as this, where the technology does not exist to accomplish CARB’s proposal to ban locomotives after the end of CARB’s own definition of “useful life,” CARB must evaluate the full extent of costs to be incurred by the entire rail network (including Canadian and Mexican rail lines, which own locomotives sometimes operating in California) associated with terminating the ability to use a locomotive decades before appropriate.

B. CARB Must Consider A Variety of Feasible Alternatives, Including Incentive Programs.

CARB’s assessment of project alternatives must include an assessment of the potential use of incentive programs designed to encourage the early retirement and/or replacement of older locomotives in California’s nonattainment areas. California has a long history of using incentive programs to reduce emissions from mobile sources, and EPA has accepted these programs with appropriate backstop measures to provide emission reductions in California’s

⁶ CARB petitioned EPA to implement revised standards for locomotives in April 2017, yet EPA has chosen not to act on this petition. Accordingly, it seems unlikely that CARB could successfully obtain the EPA waiver required for application of its Proposed Rules in a timely manner, and this uncertainty must be considered when determining whether the elements of the Proposed Rules are feasible.

State Implementation Plan. *See, e.g.,* Guidelines for Locomotive Project Funding Under Carl Moyer Program Cal. Health & Safety Code 44275-44299.2)⁷; Proposition 1B Goods Movement Emission Reduction Program.⁸ This type of program has been successful in the past and would save both CARB and locomotive operators in California compliance and administrative costs. Further, because demand for new locomotives in the United States is extremely low, an incentive program may be more effective at modernizing the locomotive fleet than taxes and labor-intensive reporting requirements.

With respect to the element of the Proposed Rule seeking to impose additional burdensome reporting requirements, the rail industry currently provides CARB with a wealth of data on its operations, and CARB may be able to utilize this data in new or different ways to accomplish its goals without imposing significant new costs on the rail industry. Thus, CARB must include in its analysis a description of information currently received by CARB from railroads pursuant to existing MOUs and informal agreements, and an explanation as to why this information cannot be used in lieu of the proposed additional reporting requirements to meet specific CARB regulatory needs. In considering the “No Action” alternative, CARB should take into account the current effectiveness of such requirements under existing law and regulations.

⁷ See Carl Moyer Program Guidelines for Locomotive Incentives, located at https://ww3.arb.ca.gov/msprog/moyer/guidelines/2011gl/2011cmp_ch11_07_11_14.pdf?_ga=2.155898171.1613319591.1612219105-926251368.1601062431.

⁸ See https://ww2.arb.ca.gov/sites/default/files/classic//bonds/gmbond/docs/prop_1b_goods_movement_2015_program_guidelines_for_implementation.pdf?_ga=2.248033415.1613319591.1612219105-926251368.1601062431.

IV. THE PROPOSED RULES' ECONOMIC IMPACT ASSESSMENT MUST BE COMPLETE.

Although CEQA's main goal is the protection of the environment and of California's resources, it requires agencies "to consider qualitative factors as well as economic and technical factors and long-term benefits and costs, in addition to short-term benefits and costs." § 21001(g). As such, CARB must consider the costs to the rail industry of each portion of its Proposed Regulations. As discussed above, these costs result in environmental impacts associated with increased truck traffic in regions current served by freight railroads. This economic analysis must include, at a minimum, the following:

- Actual costs incurred as part of complying with new proposed reporting requirements. The new proposed reporting requirements are substantively and significantly different from those contained in existing MOUs; as a result, the extrapolation of estimated costs for compliance with existing MOUs is not defensible.
- The full extent of costs associated with terminating the operational life of a locomotive decades before appropriate for the entire rail industry with locomotives operating in California.

V. CONCLUSION

The Associations appreciate this opportunity to comment on CARB's Notice of Preparation and look forward to continued cooperation and communication between CARB Staff, the Associations, and their members.

Sincerely,

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February 11, 2021

ATTACHMENT 2

**BEFORE THE
CALIFORNIA AIR RESOURCES BOARD**

**COMMENTS ON DRAFT TEXT AND PRELIMINARY COST
DOCUMENT FOR PROPOSED IN-USE LOCOMOTIVE REGULATION**

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

The Association of American Railroads (“AAR”), the American Short Line and Regional Railroad Association (“ASLRRA”), and the California Short Line Railroad Association (“CSLRA”) (jointly, “the Associations”), on behalf of themselves and their member railroads, respectfully submit the following comments on the California Air Resources Board’s (“CARB”) Draft Regulatory Language and Preliminary Cost Document for its proposed In-Use Locomotive Regulation (“Proposed Rules”).

AAR is a non-profit trade association whose membership includes freight railroads that operate 83 percent of the line-haul mileage, employ 95 percent of the workers, and account for 97 percent of the freight revenues of all railroads in the United States. AAR also represents passenger railroads that operate intercity passenger trains and provide commuter rail service. ASLRRA is a non-profit trade association representing the interests of approximately 500 short line and regional railroad members and 500 railroad supply company members in legislative and regulatory matters. Short lines operate 50,000 miles of track in 49 states, or approximately 30% of the national freight network. CSLRA is a non-profit trade association promoting best

business practices and providing legislative and regulatory advocacy and public outreach for 25 California short lines. The Associations' members own (or lease) and operate locomotives within the state of California and are part of the national freight rail network. The Associations and their members therefore have a significant interest in this proceeding.

These comments are preliminary and based on the information about the Proposed Rules disclosed to date, and the Associations reserve the right to supplement them as more information on CARB's intent, analysis, and data with respect to the Proposed Rules, as well as draft regulatory language, is provided to the Associations and the public.

I. INTRODUCTION

In this regulatory initiative, CARB has articulated a desire to pursue an undeniably important objective: improving air quality. But the mechanisms that CARB has proposed to pursue this objective by singling out railroads for expensive new regulatory burdens and charges are both unlawful—because they would be preempted by federal law—and counterproductive. Rail is already the most environmentally efficient and safe way to move people and freight over land. One train can carry the freight of hundreds of trucks, making freight railroads 3-4 times more fuel efficient on average than trucks. Further, although railroads account for 40% of U.S. freight transportation, they contribute only 2.1% of the U.S. transportation-related greenhouse gas emissions.

Railroads have demonstrated their commitment to partnering with federal and state regulators in improving air quality. For decades, railroads have undertaken initiatives to address air quality in California—both on their own initiative and through collaborations with CARB and local air districts. Railroads have pursued pioneering technology investments,

changed rail yard operations to limit emissions impacts, and voluntarily entered into two enforceable agreements with CARB. As CARB has verified, the railroads have fully complied with both agreements.

Railroad initiatives to address air quality continue today. For example, this year, BNSF is partnering with Wabtec (a major locomotive manufacturer) and the San Joaquin Valley Air Pollution Control District, in coordination with CARB, to test a battery-powered line-haul locomotive between Barstow and Stockton, CA. In addition, Pacific Harbor Lines and Progress Rail are demonstrating a battery-powered switch locomotive at the Ports of Los Angeles and Long Beach.

Elsewhere, the railroad industry is exploring the possible future feasibility and commercial viability of hydrogen fuel cell locomotives. Canadian Pacific has launched a Hydrogen Locomotive Program to test a line-haul locomotive powered by hydrogen fuel cells and batteries. Similarly, Sierra Northern Railway has launched a program to build and test a hydrogen-powered switcher locomotive. Earlier this month, Genesee & Wyoming, Wabtec, and Carnegie Mellon University proposed the Freight Rail Innovation Institute, a public-private partnership, to research hydrogen-powered and battery-powered locomotives and to develop that technology.

Railroads have also devoted resources to significantly reducing emissions in rail yards. Based on recently updated emission inventories for major yards in California, rail yard emissions of criteria pollutants have been reduced more than 70% compared to 2005. Union Pacific has coordinated with CARB to partner with two air districts to bring Tier 4 switcher locomotives into operation and Pacific Harbor Lines operates an entirely Tier 3 or 4 fleet that

was purchased in partnership with the South Coast Air Quality Management District (“SCAQMD”) through Carl Moyer Grants.

With these initiatives that can and truly have made a difference in air quality as background, the Associations and their member railroads are disappointed at the regulatory proposals unilaterally unveiled by CARB. Discarding the cooperative relationship of the past, CARB has proposed a rulemaking in an area where it clearly lacks legal authority and is unequivocally preempted from rulemaking by federal law. Furthermore, the Proposed Rules will not result in any creditable emissions reductions in California’s State Implementation Plan (“SIP”), meaning they cannot be relied on to achieve attainment as required by the Clean Air Act (“CAA”). The proposals are impractical, would significantly burden both intrastate and interstate railroad operations, and would impose tremendous costs on California railroads and their customers with little or no measurable improvements in air quality or reductions in greenhouse gas emissions.

In that regard, CARB is proposing to arbitrarily impose stringent requirements on one mode of goods movement (rail) that it does not impose on other more emissive and less efficient modes (e.g., trucking). We are unaware of a similarly comprehensive CARB strategy to regulate the trucking industry—a much larger source of criteria pollutants and greenhouse gases compared to railroads. Yet CARB unfairly singles out locomotives for such drastic restrictions. As a result, the Proposed Rules will significantly increase costs to the railroads and cost burdens to railroad customers, without parallel costs on the trucking industry or other

modes of goods movement—potentially increasing criteria, toxic, and climate pollutants by driving freight to transport modes with far worse impacts on air quality.¹

To those knowledgeable about the law, the industry, and the science, the Proposed Rules are not a practical way to further reduce locomotive emissions in a manner that is consistent with the law. Instead, it proposes arbitrary and capricious targeting of the railroad industry.

The Associations respectfully offer the following comments on specific elements of the Proposed Rules.

II. CARB’S DRAFT IN-USE LOCOMOTIVE REGULATORY SCHEME EXCEEDS THE AGENCY’S LEGAL AUTHORITY.

As AAR (and others) have briefed CARB repeatedly in the past, CARB does not have the legal authority to regulate locomotive emissions. Indeed, based on the Ninth Circuit Court of Appeals decision in the SCAQMD case, CARB’s efforts to impose state-specific regulations on rail operators are preempted by multiple federal regulatory programs. CARB’s Proposed Rules are unlawful.

¹ Indeed, in its *Transitioning to a Zero or Near-Zero Emission Line-Haul Freight Rail System in California: Operational and Economic Considerations*, also known as the “Exchange Point study,” with the University of Illinois, CARB has reached the same conclusion. See https://ww2.arb.ca.gov/sites/default/files/classic/railyard/docs/uoi_rpt_06222016.pdf (“Exchange Point Study”) at xii (“The North American Class 1 railroads have continually worked to remove barriers that prevent the seamless movement of freight. Operation with exchange points and a captive fleet in the South Coast reintroduces those barriers. Based on experience with captive fleets and lack of interoperability in Europe, operation with exchange points in the South Coast is likely to result in: increased operating costs, delays and network disruption due to locomotive exchange; decreased locomotive utilization, increased locomotive fleet size and the capital cost of establishing extra regional alternative-technology locomotive maintenance, servicing and fueling facilities. According to the European experience, the net result of these outcomes will likely be a decrease in freight rail market share.”).

A. Railroad Operations are Exclusively Regulated by the Federal Government.

Rail operations are not a discrete activity which may be confined within the boundaries of a single state. Rather, the nation's rail transportation system is an integrated network in which over 500 railroad companies participate, operating nearly 140,000 miles of track in 49 states.² Given these characteristics, "the Federal Government has determined that a uniform regulatory scheme is necessary to the operation of the national rail system." *United Transp. Union v. Long Island R.R. Co.*, 455 U.S. 678, 688 (1982). In recognition of this need for uniformity, Congress has enacted multiple statutes that preclude CARB from promulgating its Proposed Rules, including the Interstate Commerce Act, 49 U.S.C. § 10501(b), as amended by the ICC Termination Act of 1995 ("ICCTA"), the Railroad Revitalization and Regulatory Reform Act of 1976 ("the 4-R Act"), 49 U.S.C. § 11501, and the Locomotive Inspection Act ("LIA"), 49 U.S.C. § 20701.

Pursuant to Article VI of the United States Constitution, Congress can preempt state law so that it is "without effect." *Maryland v. Louisiana*, 451 U.S. 725, 746 (1981) (citing *McCulloch v. Maryland*, 17 U.S. 316, 427 (1819)). The "purpose of Congress is the ultimate touchstone of pre-emption analysis." *Cipollone v. Liggett Grp., Inc.*, 505 U.S. 504, 516 (1992) (internal quotation marks and citations omitted). Congress's purpose can be "explicitly stated in the statute's language or implicitly contained in its structure and purpose." *Jones v. Rath Packing Co.*, 430 U.S. 519, 525 (1977) (citing *City of Burbank v. Lockheed Air Terminal, Inc.*, 411 U.S. 624, 633 (1973); *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947)).

² In addition to covering all lower 48 states, the U.S. rail systems links up with the major railroads of Canada and Mexico.

As explained in more detail below, several key elements of CARB'S Proposed Rules are expressly preempted under federal law.

ICCTA "preempts all state laws that may reasonably be said to have the effect of managing or governing rail transportation." *Assoc. of Am. R.R. v. S. Coast Air Quality Mgmt. Dist.*, 622 F.3d 1094, 1098 (9th Cir. 2010) (internal quotation omitted); *see also BNSF Ry. Co. v. California Dept. of Tax and Fee Admin.*, 904 F.3d. 755, 760 (9th Cir. 2018) (state laws that specifically "target" the railroad industry by definition have "the effect of managing or governing rail transportation"). ICCTA provides that the Surface Transportation Board ("STB") holds "exclusive" jurisdiction over "transportation by rail carriers." "Transportation" is defined broadly to encompass "a locomotive, car,...yard, property, facility, instrumentality, or equipment of any kind related to the movement of...property...by rail" as well as "services related to that movement." 49 U.S.C. § 10102(9)(A-B). Various courts have stated that the core purpose of this provision is to ensure the free flow of interstate commerce, particularly by preventing a patchwork of differing regulations across states. *See, e.g., Elam v. Kan. City S. Ry.*, 635 F.3d 796, 804 (5th Cir. 2011) (a purpose of ICCTA was to create a "[f]ederal scheme of minimal regulation for this intrinsically interstate form of transportation.") (quoting H.R. Rep. No. 104-311, at 93 (1995), reprinted in 1995 U.S.C.C.A.N. 793, 805); *Fla. E. Coast. Ry. v City of West Palm Beach*, 266 F.3d 1324, 1338 (11th Cir. 2001) (stating that a desire to prevent a "patchwork of regulation...motivated the passage of the ICCTA" and that "[i]n reducing the regulation to which railroads are subject at state and federal levels, the ICCTA concerns itself with the efficiency of the industry as a whole across the nation."). State laws and regulations that specifically target the operation of railroads, like the Proposed Rules here, are subject to

categorical preemption without any need to evaluate the extent of their burdens because state or local efforts to manage or govern rail transportation are *per se* improper. *See, e.g., Delaware v. Surface Transp. Bd.*, 859 F.3d 16, 19 (D.C. Cir. 2017) (describing “categorical” preemption under ICCTA).

Other statutes also preempt or prohibit state regulation of railroad operations. For example, the Supreme Court has held that the LIA preempts state laws purporting to regulate “the design, the construction, and the material of every part of the locomotive and tender and of all appurtenances.” *Napier v. Atlantic C. L. R. Co.*, 272 U.S. 605, 611 (1926). Following *Napier*, lower courts consistently have held that attempts by states, through either common law or enactment of positive law, to impose requirements for equipping locomotives are preempted. *See, e.g., Ogelsby v. Delaware & Hudson Ry. Co.*, 180 F.3d 458, 461 (2d Cir. 1999) (holding that to allow states to regulate instructional labels on locomotives would “undermine the goal of the [Locomotive Boiler and Inspection Act], which is to prevent ‘the paralyzing effect on railroads from prescription by each state of the safety devices obligatory on locomotives that would pass through many of them.’”) (internal citation omitted).

A law can also be expressly preempted when Congress directs that state laws are preempted unless a federal agency issues an appropriate waiver. In this case, the CAA and regulations promulgated under it expressly preempt state regulation of locomotives and locomotive engines, with few exceptions not directly relevant here.

B. CARB’s Proposed Ban on Otherwise Compliant Federally Certified Locomotives is Preempted by ICCTA and the CAA.

There is no question that CARB’s Proposed Rule is not a generally applicable air quality rule with only an indirect impact on rail; it *directly* and *expressly* targets rail transportation.

Section 2478.5 of CARB's Proposed Rule would ban the operation of federally certified locomotives that comply with all federal requirements but that have been in operation for more than 23 years. The proposed ban is preempted by both ICCTA and the CAA. With respect to ICCTA, the proposed ban would improperly attempt to govern rail transportation and interfere with the free flow of interstate commerce by creating a complicated and expensive patchwork of regulation requiring railroads to switch out otherwise compliant locomotives at the California State lines.³ This is precisely the type of state regulation of railroads that Congress sought to disallow in ICCTA because it would have "the effect of unreasonably burdening or interfering with rail transportation." *EPA Declaratory Order*, FD 35803, slip op. at 8 ("2014 STB Report"). Because ICCTA "preempts all state laws that may reasonably be said to have the effect of managing or governing rail transportation," ICCTA preempts regulations such as CARB's Proposed Rules. 622 F.3d at 1098 (internal quotation omitted).

Further, the United States Environmental Protection Agency ("EPA") has already promulgated nationwide regulations governing the lifespan and remanufacture of locomotives and has expressly prohibited states from promulgating their own conflicting regulations. In CAA section 209(e), Congress preempted state and local governments from adopting or enforcing "any standard or other requirement relating to the control of emissions from...new locomotives

³ Again, notably, CARB's own Exchange Point study, conducted with the University of Illinois, reached this conclusion. See Exchange Point Study at xx ("For the [South Coast Air Basin] deployment scenario, with potential train delays and mode shifts, the above findings emphasize the importance of examining operational factors when evaluating new locomotive technology to reduce the emissions of line-haul freight rail in California. For several of the technologies, it is not the equipment capital cost and potential fuel savings that control the economic feasibility of the technology, but instead other factors that arise from the difficulty of integrating new locomotive technology in captive service within a highly interoperable rail network.")

or new engines used in locomotives.” 42 U.S.C. § 7543(e)(1)(B). EPA defines “new locomotive” as a “locomotive or locomotive engine which has been remanufactured” built after January 1, 1973. 40 C.F.R. § 92.2 (emphasis added). Because EPA’s regulations address not only newly built, but also remanufactured engines, they establish the national standards with respect to the lifecycle and emissions requirements for locomotives operating in the United States. CARB may not promulgate regulations that directly conflict with these federal rules, as is the case with the Proposed Rules.

By inventing a its own definition of “useful life” and other provisions that differ from EPA regulations, the Proposed Rule would create a separate California certification system for all U.S., Canadian, and Mexican locomotives that happen to cross California’s state lines. Such an outcome is unacceptable – and undermines the objectives of Congress to create a uniform system of railroad regulation – given the interconnected nature of the U.S. and North American rail network and the federal regulatory framework that exclusively governs it. *See CSX Transp. Inc.—Pet. For Declaratory Order (CSX Transp. May 2005)*, FD 34662, slip op. at 3 (finding that state and local permitting or preclearance requirements that could be used to deny a railroad the ability to conduct some part of its operations or proceed with activities that the Board has authorized are categorically preempted “regardless of the context or rationale for the action.”).

C. CARB’s Proposed Rules Regarding Locomotive Idling are Preempted by ICCTA, the LIA, and Federal Law.

Similarly, CARB’s Proposed Rule to impose upon railroads an obligation to shut off an Automatic Engine Stop/Start (“AESS”) equipped main locomotive engine within 30 minutes of the locomotive becoming stationary (Draft Regulatory Language, § 2478.6) is preempted by ICCTA, the LIA, and EPA’s regulations under the Clean Air Act. EPA currently mandates all new

locomotives (as explained above, the term “new locomotive” is defined to include locomotives with remanufactured engines) “be equipped with automatic engine stop/start” devices that “shut off the main locomotive engine(s) after 30 minutes of idling (or less).” 40 C.F.R. 1033.115(g).

Although CARB staff continually assert that they are simply “adopting” EPA’s existing regulations, there are significant differences between what federal law requires and what CARB has proposed. CARB’s Proposed Rule places onerous burdens on locomotive operators. For example, the existing Federal rule obligates the original equipment manufacturer (“OEM”) or remanufacturer of the locomotive to install an anti-idling device on a locomotive. The federal rules prohibit the owner or operator of the locomotive from installing a “defeat device” to circumvent the manufacture’s anti-idling technology, with certain exemptions provided. 40 C.F.R. 1033.115(f). In contrast, CARB’s Proposed Rule ignores the federal regulations and would seek to impose additional requirements on the locomotive owner or operator, disregarding the exceptions to the general idling prohibition that are provided under the federal rules.

CARB’s Proposed Rule seeks to simply bypass portions of the federal idling regulation that it deems undesirable, while purporting to simply parallel the federal rules and jurisdictional limitations. Circumventing federal laws and jurisdictional limits is not so easily accomplished. As the STB has previously stated with respect to this type of regulation, CARB does not have authority to “decide for the railroads what constitutes unnecessary idling.” 2014 STB Decision at 9. Indeed, a federal district court held, and the Ninth Circuit affirmed, that similar rules proposed by the SCAQMD related to idling were preempted by ICCTA. *Ass’n of Am. R.R. v. South Coast Air Quality Mgmt. Dist.*, 2007 WL 2439499 (C.D. Ca., April 30, 2007), *aff’d* 622 F.3d

1094 (9th Cir. 2010). The Ninth Circuit specifically stated that because the “rules apply exclusively and directly to railroad activity, requiring the railroads to reduce emissions and to provide, under threat of penalties, specific reports on its emissions and inventory,” they were preempted. 622 F.3d at 1098. The D.C. Circuit reached the same conclusion when considering an anti-idling rule proposed in Delaware. *Delaware*, 859 F.3d at 21 (holding that the proposed anti-idling law “directly regulates rail transportation by prohibiting locomotives from idling in certain places at certain times, in essence requiring that at night, in residential neighborhoods, they either shut down or keep moving[.]. This is a regulation of rail transportation under the ICCTA [and] is categorically preempted[.]”)

Further, to the extent that CARB seeks to prohibit the use of a locomotive with a non-functioning AESS device, *see* Draft Regulatory Language, § 2478.6(c), this rule directly conflicts with EPA’s regulations and is prohibited by the LIA. *See* 40 C.F.R. § 1033.815(b) (providing rail operators with a minimum period in which to conduct unscheduled maintenance and repairs); *Springston v. Consolidated Rail Corp.*, 863 F. Supp. 535, 541 (N.D. Ohio 1994), *aff’d*, 130 F.3d 241 (6th Cir. 1997) (“It is clear that Congress intended to provide a nationally uniform standard of regulating locomotive equipment.”); *Gen. Motors Corp. v. Kilgore*, 853 So.2d 171, 178 (Ala. 2002) (“Because...the [LIA] occupies the entire field, there is no area within which the states may regulate.”).

CARB has offered no rationale or justification for attempting to promulgate idling regulations that are materially indistinguishable from regulations that federal courts held were preempted by federal law just a few years ago. Under binding legal precedent, the idling

requirements contained in the Proposed Rules continue to be preempted by ICCTA, the LIA, and EPA's rulemaking in this field. As a result, CARB's Proposed Rule is unlawful.

D. CARB's Proposed Charges and Fees on Locomotives and their Operators are Also Preempted by ICCTA, the Proposed Charges are Likely Prohibited by the 4-R Act, and Are Wholly Impractical.

In its Proposed Rules, CARB is proposing both a locomotive charge (referred to by the agency as a "Spending Account"), which imposes charges on federally certified locomotives based on the operation of a locomotive within California and its emissions tier, and a yearly administrative fee that must be paid by the operator of a locomotive. Both elements of the Proposed Rules are preempted.

Section 2478.4 of the Draft Regulatory Language lays out CARB's convoluted system of charges based on the tier of the locomotive operated within the state. As an initial matter, regardless of whether they are considered "taxes" or "fees," such charges levied directly and exclusively against the railroads for their rail operations within California are unquestionably preempted under ICCTA as state laws that directly target rail transportation. *BNSF Ry. Co.*, 904 F.3d. at 760-761, 767-768.

Moreover, charging the railroads for operating even the cleanest possible locomotive available on the market—Tier 4 locomotives—does not make sense as a matter of public policy. *See* 40 C.F.R. 1033.101 (identifying EPA's promulgated emissions standards, by Tier, for locomotives with Tier 4 being the highest tier with the lowest emissions). Although CARB has asked EPA to establish a new locomotive emission standard, which CARB calls "Tier 5" (a request that EPA has declined to address), such a standard arguably makes limited sense given CARB's expressed desire for industry to transition to non-diesel engines in the coming decades.

Driving the railroads towards purchasing the next generation of long-lived diesel locomotives, if or when they are available, as opposed to focusing on developing alternative zero-emission technologies, is directly contrary to CARB's stated objective of transitioning to "zero-emission" technologies and would result in significant stranded diesel assets. These resources could better be applied to development of zero-emission technologies.

Based on preliminary calculations, the Associations estimate that a railroad operating a Tier 4 locomotive would be forced to deposit tens of thousands of dollars *per year, per locomotive*, for operating the best available technology with the lowest possible emissions available on the commercial market. Setting aside the perversity of a regulatory system that would punish a regulated entity by imposing excessive charges for successfully adopting the best available technology, this is precisely the type of local regulation that the STB has ruled is preempted because "allowing states and localities to create a variety of complex regulations governing how an instrument of interstate commerce is operated, equipped, or kept track of (even if federalized under the CAA) would directly conflict with the goal of uniform national regulation of rail transportation." 2014 STB Decision at 10.

From a legal perspective, CARB's proposed locomotive charge structure (requiring funds to be set aside and then requiring that it be spent only for defined expenses) is a direct economic regulation of the railroads and, as such, it is categorically preempted by ICCTA. *CSX Transportation, Inc.—Petition for Declaratory Ord.*, No. FD 34662, 2005 WL 1024490, at *2 (May 3, 2005) ("there can be no state or local regulation of matters directly regulated by the Board").

Moreover, CARB's Proposed Rule applies to the rail industry but does not apply to the trucking industry even though both industries transport goods in interstate commerce and may impact air quality and emit greenhouse gases. ICCTA categorically preempts laws that "discriminate against rail carriers." *Valero Ref. Company—Petition for Declaratory Ord.*, No. FD 36036, 2016 WL 5904757, at *4 (Sept. 20, 2016); see *Adrian & Blissfield R. Co. v. Village of Blissfield*, 550 F.3d 533 (6th Cir. 2008) (upholding requirement that railroad pay for pedestrian crossings installed across the railroad's tracks and sidewalks near the railroad's property, but only because the court found the requirement was not discriminatory). Other federal laws also prohibit discriminating against rail carriers including Section 306 of the 4-R Act. 49 U.S.C. § 11501. The 4-R Act prohibits states from imposing taxes, defined broadly to include any tax, that "discriminate[] against" rail carriers. *Id.* § 11501(b)(4).

Further, the sheer costs of these proposed fees and charges would "unreasonably burden []interstate commerce," and are therefore prohibited by ICCTA. *New Orleans & Gulf Coast Ry. Co. v. Barrois*, 533 F.3d 321, 332 (5th Cir. 2008) (internal quotations omitted). Indeed, when CARB completes its small business impact analysis prior to obtaining any of the necessary waivers from EPA, it will be clear that CARB's proposed locomotive charge also places an unacceptable burden on the smallest rail carriers. The average California short line locomotive fleet is 8 units and, based on information provided by CARB in the Proposed Rules, the expected annual payment into that short line's locomotive charge account would be amount to as much as \$1.6M each year, while many smaller short lines in California make less than \$1.6M in annual profit. This is an extreme financial demand on a small business and would likely prevent smaller short lines from operating in California at all.

Finally, from a practical perspective, CARB’s proposed yearly “administrative fee” of \$220 per locomotive, paid by the locomotive operator, fails to address how CARB would avoid charging the same locomotive multiple times. For example, one railroad may own and operate a locomotive for part of the year, but that same locomotive (while still owned by the same railroad) may also be operated in California by several different railroads for different portions of the year. It would be unreasonable to suggest that the administrative fee should be paid multiple times for the same locomotive every year by different railroads. In the example provided this would multiply the total fee, likely providing revenue to CARB but failing to fairly apportion the fee between operators.

Similarly, CARB’s locomotive charge (a.k.a. “Spending Account”) would require railroads to place hundreds of millions of dollars into a trust account to be used only as dictated by CARB to purchase the cleanest available locomotive.⁴ There is no market for new locomotives at this time and thousands of locomotives are in storage due to increased productivity and reduced demand for specific commodities. Indeed, new locomotive sales peaked in 2014, at about 1,450 units, and dropped off to near zero by 2020. Moreover, as discussed above, even if a railroad purchased the cleanest available locomotive (a Tier 4), it would still be subjected to CARB’s locomotive charge on that new locomotive on a yearly basis. Thus, in addition to being

⁴ CARB continually attempts to characterize its proposed charge on locomotives as a “spending account.” See CARB Workshop Slides Day 2 (10/30/2020), available at <https://ww2.arb.ca.gov/sites/default/files/2020-12/2020.10.28%20841AM%20Workshop%20Slides%20Day%202%20-%20Remediated.pdf>. This characterization is wholly inconsistent with the reality of what CARB is proposing—to “[r]equire mitigation to be paid for locomotive emissions” and to “convert mitigation funds to cleaner locomotives.” *Id.* at 41. CARB’s proposal amounts to a discriminatory charge being levied against the locomotive industry.

preempted by federal law, CARB's locomotive charge is both counterproductive and unreasonable.

E. CARB's Proposed Rules Mandating Extensive Reporting Obligations are Preempted.

Previous rules adopted by the SCAQMD purporting to impose recordkeeping and reporting requirements on locomotives operating in the district were held to be preempted by ICCTA. Upon review of those reporting rules, the STB found that "allowing states and localities to create a variety of complex regulations governing how an instrument of interstate commerce is operated, equipped, or kept track of (even if federalized under the CAA) would directly conflict with the goal of uniform national regulation of rail transportation." 2014 STB Decision at 10 (emphasis added). In response to claims from SCAQMD that the proposed reporting requirement was "merely a record-keeping requirement and thus does not impede the flow of transportation," the STB found that the requirement "would potentially create a patchwork of localized, operational recordkeeping requirements that would likely affect railroad operations." 2014 STB Decision at 9. The STB noted multiple times that because more than 100 CAA nonattainment districts exist in the United States, if the recordkeeping rule were implemented, "other nonattainment districts across the country could, and likely would, implement their own, unique recordkeeping requirements," resulting in "an unworkable variety of regulations." 2014 STB Decision at 9, 10.

CARB's Proposed Rules are strikingly similar to the reporting provisions adopted by the SCAQMD that the STB found were preempted by federal law. The same preemption analysis will thus apply to CARB's proposed reporting requirements, in which CARB is proposing to require railroads to record and report, among other things, total megawatt-hours operated or

total fuel used throughout the year in California (broken down by air district) and the total engine hours throughout the year in California (again broken down by air district). The administrative effort involved for all railroads to track this information based on which of the 35 California air districts the locomotives operate in is immense and would require significant investment in geofencing and other technologies. This level of reporting is both burdensome and unworkable and would greatly interfere with the operation of the nation's rail network. As such, the Proposed Regulations are preempted by ICCTA.

III. CARB CANNOT REQUIRE COMPLIANCE WITH A REGULATION THAT HAS NOT YET BEEN LAWFULLY PROMULGATED.

CARB's regulatory timeline does not anticipate presenting the final In-Use Locomotive regulation to the Board until mid-2022, with final adoption of the rule unlikely until 2023. Yet CARB indicates in its Draft Regulatory Language that the proposed recordkeeping requirements will be effective starting in January 2022 with reporting obligations and calculations of the locomotive charges based on that data beginning in 2023. *See Proposed 13 C.C.R. § 2478.4(a).*

California statutes do not "operate retrospectively unless the Legislature plainly intended them to do so." *Western Sec. Bank v. Super. Ct.*, 15 Cal. 4th 232, 243 (Cal. 1997); *see also Myers v. Philip Morris Cos., Inc.*, 28 Cal. 4th 828, 841 (2002) ("unless there is an express retroactivity provision, a statute will *not* be applied retroactively unless it is *very clear* from extrinsic sources that the Legislature...must have intended a retroactive application") (citations and quotation marks omitted; emphases in original); Cal. Health & Safety Code 43013(b). Similarly, "a statutory grant of legislative rulemaking authority will not, as a general matter, be understood to encompass the power to promulgate retroactive rules unless that power is

conveyed by [the legislature] in express terms.” *Bowen v. Georgetown Hosp.*, 488 U.S. 204, 208 (1988).

Nowhere in California law has the Legislature bestowed upon CARB the power to adopt recordkeeping regulations requiring *retroactive* maintenance of records from periods before the recordkeeping obligation was created. Section 43013(b) of the Health and Safety Code only provides that CARB “shall, consistent with subdivision (a) [which prohibits CARB regulations preempted by federal law], adopt standards and regulations for...off-road or nonvehicle engine categories, including, but not limited to,...locomotives.” Thus, even for locomotive regulations arguably *not* preempted by federal law, nowhere is CARB expressly granted the power to adopt regulations with retroactive effect.

There should be no dispute that CARB has no legal authority to compel an entire industry to comply with a draft regulation before it has been lawfully promulgated and finalized, or to force businesses to undertake actions on the bare *assumption* that a draft regulation will be adopted in its proposed form. CARB cannot require the rail industry to invest in the development and implementation of the extensive technological framework required for compliance with CARB’s proposed regime prior to the enactment of the final rule.⁵

IV. THE GOALS OF CARB’S PROPOSED RULES ARE PRESENTLY INFEASIBLE.

CARB has stated that the “goal of the [Proposed Rulemaking] is to accelerate immediate adoption of advanced cleaner technologies for all locomotive operations.”⁶ Yet CARB concedes

⁵ See https://oal.ca.gov/underground_regulations/ (describing the prohibition of ‘underground regulations’ under California law).

⁶ <https://ww2.arb.ca.gov/our-work/programs/reducing-rail-emissions-california/concepts-reduce-emissions-locomotives-and>.

in its Preliminary Cost Document that zero-emission locomotives are not commercially available. Railroads may be unlikely to invest capital funds in a multi-million-dollar state-of-the-art ultra-low emission diesel locomotive when diesel engines themselves may be replaced in the future with newer technology. It is impossible for CARB (or any other state agency) to predict which technology (either in development today or yet to be developed) will be adopted by the national transportation sector generally and the rail industry specifically.

Moreover, the infrastructure to support zero-emission line-haul locomotives must be constructed across the North American continent due to the interconnected nature of the rail network. For example, the current rail network cannot support the use of hydrogen-fuel cell locomotives or battery-electric locomotives. In its attempt to force a transition to an as-yet unidentified new technology, CARB has failed to acknowledge that it is not feasible to have one rail network used in California and another used in the rest of North America.⁷

Finally, CARB fails to account for several other factors regarding its Proposed Rules (all previously communicated to staff):

- CARB has not proposed, and has no legal authority to require, a railroad participating in interstate commerce to purchase new locomotives simply because CARB commands the operator to do so;
- There is no demand for new locomotives at this time and AAR does not anticipate demand to grow significantly in the coming years;⁸
- Even if a locomotive owner were to purchase a new locomotive with funds from the locomotive charge account, CARB cannot require that that the higher tier locomotive be operated within California; and
- Under CARB's paradigm, lower-tier locomotives would not be retired—instead, locomotives banned from operating in California would increasingly operate in

⁷ See CARB's Exchange Point Study, which reaches this conclusion.

⁸ Today there are approximately 7500 locomotives in storage throughout the United States. AAR does not anticipate demand for new locomotives to change for the foreseeable future.

other areas of the United States, Canada, and Mexico; as such significant greenhouse gas emissions reductions would not result from CARB's Proposed Rules.

Even if such a locomotive charge were legal, it is not technologically feasible or commercially viable for railroads to transition to zero-emission locomotives, either at present or by calendar year 2035. CARB's Proposed Rules will simply impose a significant cost on the rail industry and its customers, for little or no measurable benefit to the environment. CARB does not appear to have adequately evaluated whether its Proposed Rules would lead to a modal shift from rail to truck, resulting in increased toxic, greenhouse gas, and criteria pollutant emissions from truck exhaust and brake and tire wear; increased congestion on California highways and roads; increased wear and tear to highway infrastructure; and increased traffic-related accidents.⁹ As part of its CEQA analysis, CARB must include an accounting of all emissions associated with truck traffic (including emissions of greenhouse gases and all sources of on-road vehicle emissions such as particulate emissions attributable to brake and tire wear) that may reasonably be expected to increase due to modal shifts attributable to the costs of complying with the Proposed Rules, including the cost to the state and federal taxpayers to maintain its highway infrastructure.¹⁰

⁹ According to the U.S. EPA, while freight rail accounts for 40% of long-distance freight ton-miles, it only accounts for 2.1% of U.S. transportation emissions. In fact, moving freight by rail instead of truck lowers greenhouse gas (GHG) emissions by up to 75%, on average.

¹⁰ In contrast to taxpayer-supported highways, private freight railroads—not taxpayers—pay for the nation's 140,000-mile freight network, pumping billions of dollars annually into their infrastructure to directly benefit businesses, consumers, and the passenger rail systems that use freight rail tracks.

V. CARB’S PRELIMINARY COST DOCUMENT IS VAGUE BUT APPEARS TO RELY ON FLAWED ASSUMPTIONS AND INCOMPLETE INFORMATION.

Several aspects of CARB’s Preliminary Cost Document for its Proposed Rules are vague, incorrect, or rely on a flawed understanding of the rail industry. The following observations are made with the hope that CARB can clarify and revise these assumptions prior to the more formal rulemaking process.

A. The Cost Assumptions are Ambiguous in Important Respects.

Numerous ambiguities in the cost assumption document make it difficult for the Associations to comment on the document in a meaningful way. For example, CARB assumes that “[l]ocomotive operators will use [locomotive charge] funds to purchase the cleanest available locomotives at any point where funds are sufficient for purchase” and that “funds will not be held unnecessarily.” *Preliminary Cost Document, Assumption 1*. But CARB fails to explain what it means by “held unnecessarily.” For example, if there are sufficient funds in the account, but there is no business need to purchase a new locomotive, are those funds being “unnecessarily held?” Moreover, at this point, the “cleanest available locomotive” is a Tier 4 locomotive. However, even with the purchase of a Tier 4 locomotive, CARB intends to charge the operator for using that technology. Would CARB consider holding funds in anticipation of newer technology in the form of a non-diesel engine “unnecessary?”

B. Several of CARB’s Assumptions are Inaccurate and Unsupported.

CARB’s Preliminary Cost Document incorporates several assumptions that are either inaccurate, unsupported, or both. Specifically, CARB asserts that “[t]o comply with the reporting requirements, applicable entities will not be required to install new hardware on the locomotive, but may need to establish or redesign reporting protocols and software.” *Id.* at

Assumption 2. This assumption is incorrect. Many, if not most, locomotive owners will be required to install new hardware on many, if not most, locomotives to comply with the proposed reporting requirements. Moreover, the effort involved in updating software and geofence technology is neither insignificant nor inexpensive and may be outside of the current capabilities of some railroads.

C. Several Assumptions Rely on Information that Cannot Be Provided by the Railroads.

CARB has crafted assumptions based on information that cannot be provided by the Associations or their members. For example, CARB claims without supporting evidence that “[z]ero-emission (ZE) locomotives will be commercially available starting by no later than 2035. ZE locomotive costs within this document reflect estimates of commercial pricing.” *Id.* at Assumption 7. CARB offers no support for this assumption. Proven zero-emission locomotive technologies do not yet exist and, due to the interrelated nature of the North American rail network, it is likely not possible to support multiple zero-emission locomotive technologies because the infrastructure required for each technology differs so widely. Similarly, the estimated commercial pricing of zero-emission locomotives does not appear to be supported by public OEM input. The Associations believe that CARB’s estimated costs significantly underestimate what the overall costs will prove to be for these new technologies and find no support in the available real-world evidence in the market.

The Associations also submit that assumptions regarding zero-emission locomotive infrastructure capacities must be explored further by multiple interested parties. Specifically, CARB must consider the infrastructure requirements and resiliency needed (both supply and transmission) for the electric grid to support additional demands associated with some forms of

potential zero-emission locomotives, particularly when combined with rising demand from other sectors of the economy and increasing demands resulting from climate change. Moreover, if CARB anticipates entire railyards will convert to battery/electric locomotive technology, it must consider whether a particular charging station is sufficient to ensure uninterrupted supply to those yards and whether California's electric grid will be capable of meeting this demand during brownouts or blackouts. At present, it is not uncommon for a railyard to refuel 5-10 locomotives at one time within a period of one hour or less. CARB's cost assumptions need to reflect current practices, and if CARB cannot point to evidence that those practices cannot be duplicated with zero-emission infrastructure, CARB's economic and environmental analyses must reflect the impacts of additional locomotive downtime for extended refueling periods.

Finally, the Associations ask CARB to consider whether it is prematurely anticipating the ideal zero-emission locomotive technology—i.e., whether CARB is attempting an uninformed selection of “winning” and “losing” technologies. For their parts, the Associations are not aware of any consensus among industry or researchers regarding how best to reduce emissions from freight shipping.

VI. CONCLUSION

The Associations appreciate this opportunity to comment on CARB's Draft In-Use Locomotive Regulations and Preliminary Cost Document and hope to return to our previous history of meaningful cooperation and communication between CARB Staff, the Associations, and their members.

Sincerely,

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