San Joaquin
Joint Powers Authority

CAPITOL CORRIDOR
JOINT POWERS AUTHORITY

LOS SAN
MANAGING AGENCY
PACIFIC SURFLINER

VIA-EMAIL

November 7, 2022

California Air Resources Board (CARB)
Board of Directors
1001 I Street
Sacramento, CA 95814
[Submitted via Comments to the Board]

Re: Proposed In-Use Locomotive Regulation – Comment Letter

Dear CARB Board of Directors:

On behalf of the three California State-Supported Intercity Passenger Rail Corridors represented by the Capitol Corridor Joint Powers Authority, San Joaquin Joint Powers Authority, and the Los Angeles – San Diego – San Luis Obispo Rail Corridor Agency (JPAs), we write to you regarding the California Air Resources Board (CARB) proposed In-Use Locomotive Regulation. We support and share CARB's goals to reduce locomotive emissions and have worked with the California Department of Transportation (Caltrans) to take aggressive steps toward achieving these goals including improving operational efficiencies and making significant investments in the cleanest available Tier-4 locomotives.

Regrettably, we have significant concerns regarding the proposed timing, structure and overall compliance requirements presented in the regulation. Despite the recommendation and conclusions made in the 2022 market and technology assessment, Zero-Emission (ZE) technology is still a developing technology in the United States. Per statements from the vehicle manufacturers, the ZE technology that has been implemented in other countries still lacks the necessary range and capacity required for many of the intercity passenger and commuter rail operations in the United States. Further, this technology has not yet been approved for use by the Federal Railroad Administration. While the JPA's support the intent of this proposed regulation, we offer the following precise concerns with the proposed regulation as currently written and we appreciate your attention and consideration of these concerns and look forward to the Board's discussion on alternative solutions that reduce emissions without unintended and potentially serious impacts.

First, we support the request made by other agencies asking that public agencies not be held to a Spending Account or Useful-Life Requirement under any scenario as a means of further emissions reductions. Passenger railroads are committed to reducing locomotive emissions. However, mandatory spending accounts siphon critical operating funds needed by commuter and intercity passenger rail agencies recovering from precipitous ridership declines due to the pandemic. Mandatory diversions of funding from operations and maintenance programs could jeopardize the safety and reliability of railroad operations. A CARB-imposed useful life requirement for locomotives of 23 years is also significantly shorter than federal useful life standards that can last as long as 39 years for some FTA locomotive grant programs and could force agencies to repay federal funds if locomotives are retired early. The simultaneous transitioning away from diesel by all California agencies also limits the number of potential buyers for an in-service locomotive. To help ease the financial burden for intercity passenger and commuter rail agencies, as part of this proposed regulation, we respectfully request that passenger agencies that act in good faith under the ACP but are ultimately unable to meet their reduction goals should be held harmless or be put into a compliance mechanism other than the spending account. The regulation needs to clarify what that alternate mechanism would be.

Specifically, for the JPA's, our operational funding is provided by Caltrans and the regulation is not clear whether the JPAs or Caltrans would be subject to the spending account for in-use locomotives. Further complicating compliance for the JPA's, is that Caltrans is unable to dedicate legislatively appropriated operational funding for capital purchases. Prior to this regulation, Caltrans and the JPAs adopted the Zero-Emission Intercity Passenger Rail Strategy (ZE Strategy) that calls for a complete ZE replacement of the locomotive fleet by 2035 and intermediate reductions during the transition period. Requirements to purchase additional Tier-4 vehicles in the interim and their subsequent use across the vehicle's useful life could represent a net *increase* in emissions over the ZE Strategy and would divert funding away from ZE pilot and procurement projects. This ZE Strategy was discussed with CARB and presented in a final form at meetings listed in Appendix I of the Initial Statement of Reasons.

Second, we ask that CARB provide a consistent 2035 zero-emissions purchase date for both freight and passenger rail operators. As currently proposed, the regulation language imposes a 2030 date for passenger rail operators and affords a 5-year delay for freight rail operators. CARB's outreach to locomotive manufacturers was not sufficient to fully gauge the development and expected timeline of the passenger locomotive market to support this advanced timeline. Passenger rail should not be held to a more stringent timeline than freight rail. By setting a consistent 2035 goal, CARB gives the entire industry the needed time for the technology to develop. Independent industry experts expect commercially viable zero-emissions technologies in this sector to materialize over decades, not years.

Third, CARB needs to consider extending the time frame for an Alternative Compliance Plan (ACP) – preferably for no less than 15 years. Five years provides insufficient time for most agencies to plan, fund, procure, and roll out new locomotives and it will be difficult for any agency to make significant equipment-based reductions as quickly as the ACP requires. To be most effective, the ACP should also account for early emissions-reduction actions, technology adoptions, and provide credit for reductions in Vehicle Miles Travelled (VMT) and emissions that are facilitated through public rail service. A longer-term ACP and accounting for VMT/emissions reductions through passenger rail service will provide greater certainty for operators and appropriately capture the environmental benefits accrued through the very benefit of their service.

Fourth, that the current standard of using absolute emissions, rather than emissions relative to the passengers served, complicates compliance for agencies. We encourage CARB to restructure the emissions formula for passenger rail agencies to weight emissions by passenger. Under both the spending account and ACP scenarios, an agency that has increased service, even with Tier-4 vehicles, would show as increasing overall emissions. In some cases, an agency may be required to reduce their emissions to comply with the regulation by reducing service. This could have the unfortunate effect of *increasing* overall emissions as travelers use private automobiles for travel in lieu of the reduced train service. By contrast, measuring emissions per passenger will allow passenger agencies to earn credits for increasing ridership within existing service and emissions levels. It would better achieve CARB's overall goals to allow an agency's emissions to remain stable if the agency's service decreases emissions overall.

Lastly, we ask that the reporting requirements being proposed be revised for public agencies. Much of the data requested, such as idling, the use of ground power and engine shutdowns are not and cannot be automated for the existing equipment and infrastructure. These data points would need to be primarily collected in a labor-intensive manual system that goes beyond the capacity of existing staff and technical resources, particularly us as the JPA's overseeing the state-supported intercity passenger rail where Caltrans owns the equipment, the JPAs manage the service, and Amtrak operates and maintains the vehicles.

Caltrans and the JPAs continue to work on a number of programs to reduce locomotive emissions as part of the ZE Strategy, including moving to renewable diesel on the entire statewide Intercity Rail Fleet, identifying operational changes to increase vehicle efficiency, procuring Tier-4 locomotives to replace older lower tier units, completing a Request For Proposal (RFP) to overhaul the existing State owned Tier-2 locomotives to Tier-4, and ensuring ground power is provided at all layover facilities to reduce locomotive idling. Caltrans is also collaborating with the California State Transportation Agency on procuring Zero-Emission Multiple Units (ZEMUs) for Intercity service where applicable, as well as, completing a study to determine the energy needs required to operate zero-emission locomotives in revenue service on all three (3) of the State Supported Intercity Corridors. This Study will require funding for the research and development of a locomotive with the selected technology and construction of a prototype locomotive to test the functionality of the unit. The demonstration and research and development projects will enable good decisions to be made about the best way to transition to a ZE fleet, and procurements to do so will begin to roll out around the end of the decade in an effort to achieve the 2035 goal of the ZE Strategy.

In conclusion, and as a proposal to CARB, we ask that a neutral and independent market analysis be completed by an informed third party, before a rule is adopted by the CARB Board of Directors. WE feel the Standardized Regulatory Impact Assessment (SRIA) omitted and misrepresented critical information relating to the cost and availability of zero-emissions technology and does not coincide with information known from prior engagements with leading passenger rail equipment manufacturers. This analysis will inform the timeline, incentives, and technologies necessary to meet the needs of operators across the state. A funded pilot phase should be implemented before penalties or purchase requirements are imposed. Such pilots will accelerate the development of technologies faster than will be possible with operators pursuing independently. A purchase requirement and fleet management framework with the appropriate timelines would better align shared zero-emissions goals with the realities of market availability, public procurements, and complex transition plans.

We also encourage CARB to provide a commensurate level of incentive funding required for the development of locomotive technologies as was provided to other public transit modes. There are mature commercial markets for hybrid and zero-emissions buses and personal vehicles in part because of decades of significant public investment at the federal and state levels in alternative technologies in these sectors, in partnership with private industry. Rail will require, and deserves, the time and incentive pilot funding afforded to the development of other zero-emissions technologies.

Passenger rail operators are united in their shared goal to accelerate and deploy zero-emissions technologies as soon as feasible. CARB's regulatory framework should account for the lessons learned and best practices from converting other sectors in a manner that is safe and appropriate. Unintended impacts from the regulation as current written, risks the everyday use of rail service at a time when the state is encouraging the use of public transportation to reduce emissions and congestion in local communities.

We appreciate your attention to these important concerns as the CARB Board of Directors seeks to reduce emissions from the rail sector. Please contact Brian Schmidt at brian@acerail.com if we may be of any assistance in your efforts.

Thank you,

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