



February 20, 2024

California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812
[submitted electronically]

RE: Comments On Proposed Low Carbon Fuel Standard Amendments

Carbon Ridge, Remora, Seabound, Stax Engineering, and Wärtsilä, jointly as the Mobile Carbon Capture Coalition, appreciate the opportunity to provide comments on the California Air Resources Board's (CARB) Proposed Amendments to the Low Carbon Fuel Standard Regulation (LCFS). The Mobile Carbon Capture Coalition is committed to working with CARB, other state agency partners, and all stakeholders to deliver innovative climate solutions that will provide benefits in California and beyond.

About Mobile Carbon Capture Technology

Carbon capture technologies are an important part of California's toolkit for deep decarbonization. Mobile carbon capture technologies use carbon capture directly on hard-to-decarbonize mobile sources, including Class 8 heavy-duty vehicles (semi-trucks) and marine shipping vessels.

These transportation methods are essential to our economy, but are also difficult to decarbonize. The nation's two million semi-trucks and the global shipping industry emit

approximately 340 and 700 million metric tonnes of CO₂ respectively each year.¹ In addition, these high-emitting vehicles and ships will be in operation for decades to come, given the capital investments made and the need to support supply chains across the nation and world. Importantly, mobile carbon capture technology already works, with Mobile Carbon Capture Coalition members having robust partnerships with Fortune 500 companies and initial deployments.

Mobile carbon capture can also provide air quality benefits, as many mobile carbon capture technologies act as a filter on engine exhaust. Along with capturing CO₂, it demonstrates the potential to drastically improve air quality by reducing toxic air pollutants and other greenhouse gasses (GHGs) like nitrogen oxides.

Mobile carbon capture technologies can *quickly* address the most difficult sectors to decarbonize, including heavy-duty trucking, vessel shipping, and rail. Mobile carbon capture technology is a critical near-term solution that can deliver significant climate benefits and support and complement efforts toward achieving zero-emission transportation in California. When paired with renewable fuels, this innovative technology can **make transportation carbon negative** (in what is known as a bioenergy with carbon capture and storage or “BECCS” carbon removal pathway).

California is also not the only place considering the role of carbon capture, particularly mobile carbon capture, in decarbonization plans. The European Union and International Maritime Organization (IMO), the United Nations specialized agency responsible for regulating shipping, are already evaluating and implementing programs to account for reductions in emissions from mobile carbon capture. The European Union has even gone as far as integrating mobile carbon capture into its Emission Trading Scheme (ETS).

LCFS Proposed Amendment Comments

The Mobile Carbon Capture Coalition supports actions to decarbonize the transportation sector as soon as possible. California’s transportation sector is the State’s largest source of both GHG emissions and air pollution, accounting for more than half of statewide emissions.² Rapidly driving down these emissions is a critical element of California’s strategy to achieve carbon neutrality. As the Governor rightly recognized in his July 22,

¹ <https://www.iea.org/energy-system/transport/international-shipping>

² See Draft 2022 Scoping Plan Update, pg. 147.



2022, letter to CARB Chair Randolph on the 2022 Climate Change Scoping Plan Update, innovative carbon capture and sequestration technologies will be necessary for California to reach its climate goals, including carbon neutrality by 2045. Additionally, SB 905 (Caballero & Skinner, 2022) further underscores the role that carbon capture technologies will need to play as part of these efforts. Solutions that can significantly reduce—and even fully eliminate—greenhouse gas emissions from California’s transportation sector will be key. CARB should ensure that, as new carbon capture and removal technologies emerge, they can be quickly incorporated into the LCFS to decarbonize the transportation sector.

For these reasons, the Mobile Carbon Capture Coalition supports CARB’s proposal to establish a strong carbon intensity reduction target of 30 percent by 2030 with increasing stringency in subsequent years, as the emission reductions driven by the LCFS program will be critical to ensure California remains on track to meet its climate goals. LCFS CI targets can be made more ambitious by the inclusion of a suite of transportation decarbonization technologies, including mobile carbon capture technologies that can be rapidly scaled to deliver significant climate, air quality, and public health benefits in California.

Additionally, the Mobile Carbon Capture Coalition supports the incorporation of a compliance target acceleration mechanism that can automatically adjust based on clear criteria to increase programmatic stringency. This type of mechanism will help provide critically needed emissions reductions and provide market certainty for ongoing investment in low- and zero-carbon technologies.

The Mobile Carbon Capture Coalition appreciates the opportunity to submit comments, and we look forward to continuing to work with you and all stakeholders in California on this critically important effort.

Sincerely,

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