



October 17, 2022

Tony Brasil, Branch Chief
Craig Duehring, Manager
Paul Arneja, Engineer
Mobile Source Control Division
California Air Resources Board
1001 I Street
Sacramento, CA 95812
Submitted Via Electronic Comment Log

Subject: Comments on *Proposed Regulation Order Advanced Clean Fleets Regulation, Appendices A-1, A-3, and G* posted on August 30, 2022

Dear Messrs. Brasil, Duehring, and Arneja:

The Port of Oakland (“Port”) appreciates this opportunity to comment on the Proposed Advanced Clean Fleets Regulation (“Proposed Regulation”). The Port is a public enterprise agency, operating a seaport, an airport (Oakland International Airport), and commercial properties along the Oakland waterfront. The Seaport and the Airport are both essential transportation infrastructure serving the San Francisco Bay Area, the State of California, and the nation. The Port is also a public utility, providing electricity to both the Seaport and Airport.

The Port has been participating in the Advanced Clean Fleets rulemaking process by attending workshops, asking questions, making oral comments, and providing written comments in email and letter format. Many of the Port’s concerns today are like those the Port submitted to CARB in a comment letter dated September 27, 2021. The September 27, 2021, letter is attached to today’s letter. The Port incorporates into the formal public record all the concerns previously mentioned in addition to the concerns outlined in today’s letter. The Port respectfully requests responses to all its comments.

Below, the Port offers comments on two sections of the Advanced Clean Fleets Regulation: The State and Local Government Agency Fleet Requirements (Appendix A-1) and the Drayage Fleet Requirements (Appendix A-3), as well as the Total Cost of Ownership analysis provided in Appendix G.

Comments on State and Local Government Agency Fleet Requirements

The Port has a fleet of about 100 trucks that would fall under the Proposed Regulation. The Port supports the goals of the Proposed Regulation and has already purchased two battery-electric work trucks and one battery-electric 12-passenger van (Class 4-6 vehicles). The Port appreciates being able to count those three purchases towards the new purchase requirements of zero emissions and near-zero emissions vehicles (“ZEV/NZEV”). The Port has the following suggestions to improve the Proposed Regulation:

- The term “Commercially Available” needs to be defined. The term “Commercially Available” appears at least ten (10) times in the Proposed Regulation, however it is never defined. A definition is needed for clarity. The Port suggests that the definition include:
 - that the ZEV/NZEV model be produced by at least three manufacturers;
 - that the manufacturers have at least two years’ experience selling vehicles in California;
 - that the manufacturers offer warranties like or better than warranties for similar vehicles with internal combustion engines
 - that repair facilities and spare parts be available locally and in sufficient quantities to service the vehicles as needed in a timely fashion;
 - that the manufacturers have at least 25 copies of the model already placed into service.
- The Port is concerned about its ability to comply with the ZEV/NZEV purchase requirements of the Proposed Regulation while at the same time fulfilling its duty to spend public funds responsibly. Specifically, the Port is concerned that the Proposed Regulation may compel public agencies to purchase equipment that is “Commercially Available” but unable to operate or perform. This would result in a waste of public funds solely to comply with the Proposed Regulation. The Port suggests the following additional exemptions that will allow public agencies to remain in compliance, remain able to conduct essential infrastructure repair and maintenance duties, and not waste public funds:
 - Include an exemption for an agency that makes a demonstrated good faith effort to procure a new ZEV/NZEV but receives no bids or only a single responsive bid. In that instance, allow the agency to purchase internal combustion engine vehicles without having it count against its 50% or 100% purchase requirement.
 - Include an exemption when the manufacturer cannot guarantee vehicle delivery prior to the required replacement date.

Comments on Drayage Fleet Requirements

The Port is very concerned about a foreseeable drayage truck shortage that could occur with the confluence of the potential impacts of new labor and work rules, the ban on pre-2010 engine year trucks in 2023, and the Proposed Regulation's coming into effect in 2024. CARB should consider the proposed requirements in context with other circumstances that are affecting trucking and shipping at the same time. Factors contributing to future truck shortages include:

- Affordability: Electric trucks are not currently affordable for many smaller companies and individuals, even with the incentives being offered. California's Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project ("HVIP") currently offers \$170,000 vouchers for battery-electric vehicles, however they cost anywhere from \$350,000 to \$400,000 leaving a \$180,000 to \$230,000 funding gap. Drayage truck owners typically purchase used diesel vehicles that cost under \$100,000, so this will require drayage truck owners to spend double what they would normally pay for a drayage truck. This cost does not include the additional taxes and insurance premiums that drayage truck owners will need to cover.
- Availability: It is unlikely that there will be enough zero emissions trucks available to backfill the normal attrition that happens every year due to numerous factors and circumstances, such as drivers moving away, shifting their trucks to a different type of hauling industry, inability to afford a ZE truck, inability to make a living using a ZE truck or otherwise leaving the drayage industry.
- Need for CARB Support for Truckers: Given the complexity of compliance with the Proposed Regulation as well as the affordability and availability challenges described above, the Port urges CARB to provide resources to drayage truck owners. The Port urges CARB to play an active role in mitigating the burden of compliance with the Proposed Regulation on drayage truck owners. In CARB's response to today's letter, the Port respectfully requests that CARB describe specific measures it will implement to assist drayage truck owners with compliance with the Proposed Regulation.

Further, the Port of Oakland anticipates that most of the electric trucks being built in the early years will go to Southern California. The smaller ports in the State cannot reasonably compete with much larger ports for the same small pool of electric trucks.

- Lack of charging/fueling infrastructure: There is not currently a regional or state-wide charging station network to support electric truck duty cycles, and multiple analyses on how best to design and implement this network are still underway. And, as seen during recent Extreme Heat Events, the state-wide electrical grid may not have the resiliency and capacity to provide the amount of electricity needed for battery-electric truck charging. The Port is currently partnering on hydrogen fuel cell truck demonstration projects, but neither the fuel cell technology nor the hydrogen fueling station network will be available in time for this regulation.

Truck shortages are expected to lead to more supply chain disruptions and more coast-wide congestion at seaports. As seen recently, these disruptions can create delays in getting imports to customers, delays getting exports out resulting in spoilage and business loss, cargo diversion resulting in increased emissions as goods are transported back into California, and congested marine terminals leading to increased anchorage and longer equipment running times. The

Proposed Regulation could have the unintended consequence of creating congestion and could lead to more emissions, not less.

The Port is fully committed to promoting and implementing zero emissions programs and projects throughout the Seaport. However, the Port respectfully requests that the Drayage Truck provisions of the Advanced Clean Fleets regulation timelines be extended until more zero emissions trucks are commercially available and the reliability and availability of fueling stations across the state's trade corridors are advanced.

Comments on Total Cost of Ownership Analysis

The total cost of ownership ("TCO") analysis provided by CARB should be reexamined due to faulty assumptions regarding the Low Carbon Fuel Standard (LCFS) program. The analysis concludes on page G-5 that "Revenue from LCFS credits significantly improves the TCO for battery-electric and fuel cell electric vehicles. LCFS credits can completely offset the cost of charging a battery-electric vehicle and significantly reduce the costs of refueling fuel cell electric vehicles." The Port offers the following considerations regarding the TCO analysis:

- The analysis projects an LCFS credit price of \$200/credit until 2030. LCFS prices have been in decline since early 2021. Credits are currently selling at \$78/credit
- The analysis assumes that drayage drivers will own day cab style trucks and will own their own charging/fueling infrastructure, enabling them to generate LCFS credits. The Port does not agree with this assumption. Some of the largest fleets may install and own their own charging infrastructure and/or hydrogen fueling station, but this may not be the case for smaller or mid-size fleets. Therefore, it is faulty to assume that LCFS benefits will flow with certainty to drayage truck owners.
- The analysis assumes that drayage truck owners will have the capacity and resources to participate in the LCFS program in the first place. The Port knows firsthand that it is time consuming and challenging to participate in LCFS. It takes a lot of dedicated time and effort to register in the program, register every single charger, take monthly meter readings, produce quarterly and annual reports, to sell the credits, and to document usage of funds. LCFS reporting requirements will be more complex for hydrogen, and CARB has announced they intend to require expensive third-party verification for large generators of electric credits. Again, perhaps the largest of fleets might have the resources to dedicate to this program, but it is not realistic to assume that smaller or mid-size fleets will be able to participate.

The Port requests that CARB staff revise its TCO analysis, taking these comments on LCFS into account. The Port also requests a TCO analysis conclusion for Class 8 trucks that does not include any benefit from LCFS. This is the most likely scenario for Port drayage truck owners.

Closing

The Port of Oakland is fully engaged and committed to reducing truck emissions, both within our own fleet and with the fleet of trucks serving cargo operations at the Seaport. The Port is proud to note that its most recent emissions inventory (Year 2020) shows diesel particulate matter (DPM) emissions from trucks decreased 99% between 2005 and 2020, and oxides of nitrogen (NOx) decreased 73% in the same period, despite cargo growth.

The Port is fully committed to advancing the State of California's emissions reduction goals through its Seaport Air Quality 2020 and Beyond Plan, which the Board of Port Commissioners approved in 2019. The Port urges CARB to consider the Port's comments carefully.

We look forward to seeing our suggested improvements to the Proposed Regulation.

Please contact Ms. Tracy Fidell, P.E., Port Associate Environmental Planner/Scientist at tfidell@portoakland.com with any follow-up questions and responses.

Sincerely,



Richard Sinkoff
Director of Environmental Programs and Planning

CC:

Danny Wan, Executive Director
Kristi McKenney, Chief Operating Officer
Mary Richardson, Port Attorney
Bryan Brandes, Maritime Director
Matthew Davis, Director of Governmental Affairs
Tracy Fidell, Associate Port Environmental Planner/Scientist

Attachment: Port's comment letter dated September 27, 2021.

Attachment A

Port of Oakland comment letter dated September 27, 2021 on Advanced Clean Fleet Regulations as presented during public workshop on September 9, 2021



September 27, 2021

Mr. Craig Duehring, Manager
Mobile Source Control Division
California Air Resources Board
1001 I Street
Sacramento, CA 95814
Submitted Via Electronic Comment Log

Subject: Comments on *Draft Regulatory Language and Updated Cost Assumptions for the Advanced Clean Fleets Regulation* Presented at Public Workshop on September 9, 2021

Dear Mr. Duehring:

The Port of Oakland (“Port”) appreciates this opportunity to comment on the Proposed Advanced Clean Fleets Regulation (“Proposed Regulation”). The Port is a public enterprise agency, operating a seaport, an airport (Oakland International Airport), and a commercial district extending from Jack London Square to the airport. The seaport and the airport are both essential transportation infrastructure serving the San Francisco Bay Area and the State of California. The Port is also a public utility, providing electricity to both the seaport and airport. The Port is responsible for maintaining its facilities in good condition for the benefit of the entire region.

The Port offers comments on two different components of the Advanced Clean Fleets Regulation: the Public Fleet Requirements and the Drayage Fleet Requirements.

Comments on Public Fleet Requirements

The Port currently has a fleet of about 100 trucks that would fall under the Proposed Regulation (Class 2B or higher). In a typical year, the Port purchases about 20 on-road trucks of various sizes and body types. The Port supports the goals of the Proposed Regulation, and in fact has already purchased two battery-electric work trucks and one battery-electric 12-passenger van (Class 4-6 vehicles).

- A. The aggressive timeline for this Proposed Regulation and the lack of commercial availability of zero-emissions trucks will lead to actions that defeat the purpose of the Proposed Regulation.

The Port routinely explores alternative fuel options during its procurement processes, but unfortunately there are no feasible zero-emissions options available for the heavier duty trucks. The Port expects a shortage or lack of zero-emissions vehicles (“ZEV”) and near zero-emissions vehicles (“NZEV”) in the early years of the Proposed Regulation when every city, county, airport, and utility in California (including Caltrans and PG&E) is competing for the same limited supply. As a result of the anticipated shortage, agencies may accelerate purchases of new internal combustion engines prior to 2024. Alternatively, Agencies will likely maintain older gasoline and diesel equipment longer than typical instead of purchasing new equipment.

Consequently, the Port recommends delaying the Proposed Regulation’s commencement date until zero-emissions trucks are commercially available and proven effective for the duties required.

- B. The Port strongly urges CARB to consider including additional exemptions in the Proposed Regulation.

The Port offers the following suggestions for additional exemptions that will allow agencies to remain in compliance in situations beyond their control:

1. Include an exemption for an agency that tries to procure a new ZEV/NZEV but receives no bids. In that instance, allow the agency to purchase internal combustion engine vehicles.
2. Include an exemption when ZEV and NZEV options are not capable of performing the duty cycles required by a specific truck.
3. Include an exemption when only a single manufacturer sells a certain truck type or only a single responsive bid is received during public purchase process.
4. Include an exemption for low usage vehicles.
5. Include an exemption when the manufacturer cannot guarantee vehicle delivery prior to the required replacement date.
6. Include an affordability component. For example, if two bids are received for a given vehicle, but the ZEV version costs substantially more than the NZEV, allow agencies to purchase the lower cost vehicle.
7. Expand the list of emergency vehicles to include vehicles needed to repair critical utility and transportation infrastructure.
 - a. In a major earthquake, terrorist attack, or other catastrophe, it will be imperative for the airport and seaport to return to operations quickly to transport goods and people and respond to the emergency. In all likelihood, electric power will be disrupted during such a crisis leaving the Port unable to charge its vehicles or accomplish critical work.
 - b. The proposed exemption for fleets where 75% of a body type is already ZEV can never be met if the agency only has one, two, or three of a given body type. For

example, if the Port has only three bucket trucks, it cannot receive an exemption for one of them. Bucket trucks are essential for repairing electric transmission lines and transformers. Without electricity, the cargo cranes at the seaport cannot discharge or load ships. Similarly, sweeper trucks are essential to keep runways clear and safe for airplanes. If the power were out and the trucks were all battery-electric, the airport runways could be shut down until power is restored. But the power cannot be restored without the work trucks and bucket trucks, leaving the Port without a way to fulfill its essential functions.

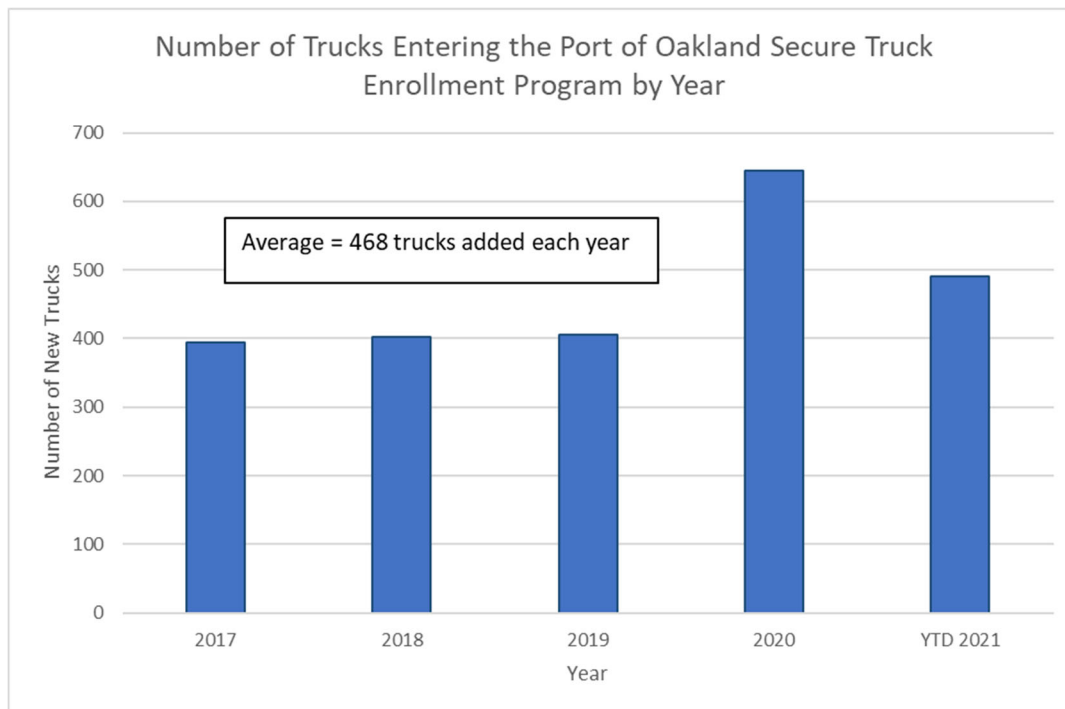
Comments on Drayage Fleet Requirements

The Port is extremely concerned about the consequences of the foreseeable drayage truck shortage that will occur if the Proposed Regulation becomes effective in 2023.

- The Port anticipates severe supply chain disruptions: imported merchandise will likely experience delays getting to consumers as will agricultural exports, resulting in business uncertainty and potential spoilage of goods.
- Supply chain disruptions could induce cargo diversion to ports outside California with no truck shortage. This would lead to an increase in emissions as the goods are trucked back into California by non-drayage trucks.
- A lack of trucks to move cargo will result in congested marine terminals, which in turn leads to the types of ship backups that are occurring now in Southern California. This leads to an increase in emissions.
- A shortage of trucks that are allowed to enter marine terminals will incentivize illegal dray-off moves, where a few ZE trucks move cargo to and from a secondary staging yards where they are shifted to non-drayage trucks to complete the move. This would have a serious and negative impact on the communities surrounding transfer yards, with noise, truck traffic, emissions, and road dust.

For context, the Port adds about 470 new trucks to its Secure Truck Enrollment Program¹ (“STEP”) each year. This is the number needed to compensate for trucks that stop working at the Port for any number of reasons (retirement, moving out of state, work in a different industry, accident, etc).

¹ STEP is not the same as CARB’s Drayage Truck Registry, however it can serve as a proxy for the number of trucks that enter the fleet serving the Port of Oakland each year.



Given that the Ports of Los Angeles and Long Beach move approximately seven times more cargo than Oakland and have triple the truck fleet size, it is reasonable to assume that the two San Pedro Bay Ports combined will require another ~1,500 trucks per year to keep up with demand for cargo movement.

- Can CARB demonstrate that there will be ~2,000 zero-emissions Class 8 trucks available for purchase by late 2023?
- Or that owner-operators or trucking companies will be able to afford the ~\$400,000 purchase price?
- Or that the electrical grid can support charging stations for that many trucks? The Governor of California has already issued four separate Executive Orders for Extreme Heat Advisories (plus one open-ended order for Fall 2021) where shipping companies have been asked not to plug ships into shore power to reduce demand on the electrical grid. Will these electric capacity and safety problems be solved by 2023?

It is crucial to understand that the term “Drayage Truck” is a misnomer. Drayage is a type of job, not a type of truck. Drayage trucks are normal Class 8 trucks that serve marine terminals and railyards.

SAME CLASS 8 TRUCK

Doing Drayage



Not Doing Drayage



The duty cycle of a drayage driver can change from one day to the next. For example, one week a driver may be doing short haul trips within the Port area, and the next week may be driving to Salinas to pick up agricultural exports. A drayage driver in Oakland may routinely drive to Nevada or Southern California. **Drayage duties are not synonymous with short-haul.**

There is no feasible way for owner-operators to comply with this rule. It will effectively end that business model. Assuming truck drivers will install charging stations and generate and monetize Low Carbon Fuel Standard credits is not realistic. This is a social justice issue. Truck driving is a good-paying job that is especially accessible to people with limited English proficiency. In all probability, this Proposed Regulation will limit their participation in the economy and deprive them of a livelihood.

The Port notes that the High Priority and Federal Fleet portion of the proposed regulation does not require Class 8 trucks with sleeper cabs to fully electrify until 2042. This shows implicit recognition by CARB that Class 8 trucks are the most challenging trucks to electrify. The Port suggests that CARB make the drayage truck deadlines consistent with those for Class 8 sleeper cabs (2042), since they are the same trucks.

Closing

The Port of Oakland is fully engaged and committed to reducing truck emissions, both within our own fleet and with the fleet of trucks serving cargo operations at the seaport. Again, the Port appreciates the opportunity to comment on the Proposed Regulation and looks forward to working with CARB on improving this Proposed Regulation. Please contact Ms. Tracy Fidell, P.E., Port Associate Environmental Planner/Scientist at tfidell@portoakland.com with any follow-up questions and responses.

Sincerely,



Richard Sinkoff
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Danny Wan, Executive Director
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Bryan Brandes, Maritime Director
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