

SAN PEDRO BAY PORTS CLEAN AIR ACTION PLAN

July 1, 2019

Bonnie Soriano
Chief, Freight Activity Branch
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

SUBJECT: PORT OF LOS ANGELES AND PORT OF LONG BEACH COMMENTS ON MAY 14 & 16, 2019 WORKSHOPS FOR THE "CONTROL MEASURE FOR OCEAN-GOING VESSELS OPERATING AT BERTH AND AT ANCHOR"

Dear Ms. Soriano:

The ports of Los Angeles and Port of Long Beach (Ports) appreciate this opportunity to provide comments on the concepts and draft regulation language presented at the California Air Resources Board's (CARB) May 14 and 16, 2019 workshops regarding the "Control Measure for Ocean-Going Vessels Operating At Berth and At Anchor."

We want to thank CARB for continuing to work with the Ports and our tenants during this regulatory development process to obtain the best available data and to craft a regulation that achieves significant public health benefits. The Ports continue to appreciate the open dialog with CARB staff to discuss the regulatory concepts and share our comments and concerns.

The purpose of this comment letter is to respond to the May 8, 2019 version of the Draft Regulation Order provided at the May workshops. In Appendix A, CARB will find specific information relative to Port of Los Angeles.

The following summarizes the Ports' comments regarding the regulatory concepts presented at the May 2019 workshops:

- **The Proposed Implementation Timelines Are Still Too Aggressive** – In the May 8, 2019 draft regulation, container terminals are still required to control ship emissions for every



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visit by 2021, with 10% flexibility split evenly between Terminal Incident Exception (TIEs) and Vessel Incident Exception (VIEs), by 2021, with further reduction to 6% flexibility split between TIEs and VIEs for 2022 and beyond. This timeline is unreasonable. While the TIEs and VIEs provide some flexibility for terminals and vessels to avoid compliance action for a limited number of unforeseen circumstances that result in a vessel not being able to plug in, that flexibility does not avoid the need for infrastructure to be installed to allow for access to shore power for 100% of all calls. Given the anticipated schedule for finalization of the proposed regulation, there will be less than a year from adoption to when this implementation requirement comes into effect, which does not allow for any of the necessary shore power improvements to be constructed.

If CARB hopes terminals and fleets will opt for shore power, a greenhouse gas reduction strategy, to meet their increased compliance requirements rather than the alternative emission control devices, which are known to increase greenhouse gases, this timeline does not allow for that compliance path to materialize for at least several years. The Ports have provided documentation in their previous letter dated May 20, 2019 that shore power projects take 5 years on average to complete. In addition, there are still considerable feasibility concerns regarding the ability of terminal operators, and/or third party vendors to develop and deploy alternative emission control devices on a stringent time line of one year.

The Ports are encouraged that CARB plans to have an interim evaluation in 2023 for tankers and Ro-Ros, but this evaluation should not replace a technical feasibility assessment to better inform this regulation, as described below. We also believe more than one evaluation maybe necessary. We ask that a feasibility assessment be updated in 2025 and beyond to evaluate the state of the technology and industry's ability to comply with the regulation. The Port of Los Angeles has specific concerns for tanker terminals as detailed in Appendix A.

- **A Technology Feasibility Assessment Process Is Needed** – The Ports continue to urge CARB to develop a technology feasibility assessment of the alternative At Berth technologies, which would look at the state of technological development and their readiness to be deployed in the marketplace to support efforts to achieve public health benefits. The berth analysis developed by CARB should not be misconstrued as a technical document at the level of detail upon which regulation should be formed. It is an aggregation of terminal operator and harbor pilot opinions (no data), and Google Maps research, and is not founded upon any engineering assessment of the infrastructure required at the terminals. Further, there are challenges associated with the technologies upon which this regulation depends which, by all appearances, are too costly, technologically and operationally infeasible in some cases, and/or unsafe to use.

In addition, this necessary feasibility assessment should include an evaluation of: (i) state of technology and deployment readiness for both shore power and alternative emission control devices; (ii) the requisite timeline to design, build, test, and deploy shore power and alternative control technologies for each California port to achieve at minimum 95% compliance, and identification of any associated constraints such as wharf space; (iii) safety and navigation of harbor waters space due to applications of new technologies for unregulated vessel types; (iv) number and types of alternative control technologies, which would be needed at each California port; (v) the cost of the various types of technologies and availability of incentives to encourage early demonstration of such technologies; and importantly, (vi) the appropriate remediation fee to encourage investment in ship- and shore-side infrastructure and alternative emission control devices, while not driving business out of California.

- **All Terminals Should Be Required to Submit Terminal Plans** – The proposed regulation language allows terminals to have the ports submit plans on their behalf. The Ports should not be responsible for the submission of each terminal's plans on their terminal operators' behalf. All terminals should submit their own terminal plans. Ports do not have control over the financial and operational decisions terminals will have to make in order to comply with the regulation, and Ports cannot be liable for terminal infrastructure deployment under the new rule. In addition, if the terminal operator intends to install the shore power infrastructure themselves, they should be required to provide the elements outlined in the proposed port plan requirements rather than the Port.

In the past, the Ports have supported shore power deployment by providing the design, bid, build, and services. In some cases, the investment was recouped through terminal leases. This was a service to our terminals, particularly for the initial installations under the original 2007 shore power regulation, but is not necessarily the path forward given the Ports' current capital project commitments and the extensive electrical infrastructure required to achieve the zero emission goals of the Clean Air Action Plan (CAAP) at the terminals.

If the Ports are still required to submit port plans in the proposed regulation update, then the terminal plan deadlines must be set at least six months prior to port plan deadlines to allow the Ports sufficient time to review the submitted terminal plans, negotiate lease terms with their terminals, and compile the necessary information CARB has requested for the Ports to submit port plans. There is no guarantee that agreements will be reached in time to meet the timeline for this part of the proposed regulation. Many of these leases have several years remaining and terminals may be reluctant to renegotiate lease terms, especially for strategies that have no CARB certification.

If terminals determine they need to construct more infrastructure, project initiation will not commence until the proposed At Berth Regulation goes into effect. It is unrealistic to

expect terminals or the ports to have design or schedules for equipment installation completed by June 2020. The earliest date according to CARB’s timeline for project initiation is January 2020, assuming terminals do not use the first six months to evaluate their best compliance option. Given that project initiation, consultant selection for design, preliminary design, CEQA approval, and final design can take 23-30 months, it does not make sense to anticipate a schedule and estimation of the electrical infrastructure required at a terminal in just six months. If the terminals/Ports submitted plans solely based on preliminary design, which is a vastly premature estimate of project scope and timeline, it would take 11-15 months. This challenge once again points to the impossibility of meeting the 2021 timeline with shore power, the most mature, emission-efficient, technological solution.

- **Exceptions to Delays in Port Plan Schedules** – If ports are still required to submit port plans, then CARB should provide exceptions to any possible enforcement action if port plan schedules are not met. The port plans can only provide an estimated schedule of installing equipment and/or necessary construction projects. Delays can and will happen outside of the control of the Ports. For example, delays due to permitting, equipment acquisition, environmental assessment, and other events that may cause schedules to not be met should be given exemptions to enforcement action in this regulation. It is unfair to hold the Ports liable for mobile source operators’ actions and emissions outside of our direct control.
- **Specifics on Remediation Fund** – The Ports request that CARB revise the fees for payment into the remediation fund for longer-term outages due to construction projects or repairs. CARB has set remediation fee costs as shown below in Table XVIII of the “Control Measure for Ocean-Going Vessels At Berth Cost Analysis Inputs and Assumptions for Standardized Regulatory Impact Assessment.”

Table XVIII. Remediation Fee Costs

Data Input	Value			Basis
Hourly remediation fee for terminal and for vessel, for each vessel type	Vessel Type	Vessel Hourly Fee	Terminal Hourly Fee	Staff analysis using Carl Moyer formula to calculate average emissions in tons per hour by vessel category. Product and crude tanker values were averaged for cost estimation purposes, however the fee would be dependent on the vessel type. Note that these values are estimates based on current Staff analyses at the time this document was prepared, and do not necessarily represent the exact fees that would apply.
	Container/ Reefer	\$2,395	\$2,395	
	Cruise	\$12,879	\$12,879	
	Auto/Ro-Ro	\$1,515	\$1,515	
	Product Tankers	\$1,783	\$1,783	
Crude Tankers	\$9,873	\$9,873		
Which terminals would offer the remediation fee as an option?	All (100%)			Staff assumes that all terminals would offer the remediation fee as an option.

CARB has set the remediation fee cost at an unreasonable level for long term construction projects. Appendix A gives an example of how the remediation fees using Table XVIII would have more than doubled the cost of a recent Port of Los Angeles construction project,

which increased shore power capabilities, by upgrading electrical infrastructure at their World Cruise Center. If terminals decide that their strategy to meet this regulation is to install more shore power infrastructure, then similar situations are likely.

The Ports are also concerned that unforeseen repairs that may take several months or more could occur. In these types of prolonged incidences, the remediation fund fees set per hour will become so prohibitively high that terminals may have to shut down or turn away vessels during the repair. Ports again encourage CARB to conduct a feasibility study that would help set the rates for the remediation fund and determine the state of alternative emission control technology.

There are currently a total of two certified alternative emissions control systems in use at this time, and those systems are only certified for use on container vessels. The Ports are uncertain in how many, if any, additional systems will be deployed in the next few years. This limited number of options makes it difficult for terminals or shipping lines to secure exclusive service of these systems, which would mean most construction or repairs would cause the payment of large fines pursuant to the remediation fee fund.

The Ports encourage CARB staff to set up the remediation funds for use specifically in technology research, development, demonstration, and deployment of emissions reduction technologies specific to ocean going vessels rather than for general emission reduction use. As stated in our previous letters, in order to accelerate the development and deployment of shore power and alternative control options, including infrastructure for non-container terminals and vessels, the Ports request that CARB prioritize funding as they did for the currently regulated fleet through Proposition 1B in 2006. The remediation fund can be better utilized to accelerate emission reductions from this under-represented category.

- **Compliance May Hinder CAAP Efforts** – Lastly, the Ports remain concerned that the cost to comply with CARB’s proposed Rule will affect our ability to meet the goals under the 2017 CAAP Update given the significant upfront costs of an At Berth Infrastructure Program. The costs shown in the May presentation were annualized, but much of the costs will be upfront rather than spread over the ten years. CARB staff has also assumed that minimal infrastructure changes will be needed to meet the regulation. Our joint letters to CARB have included cost estimates that we feel are representative of the infrastructure costs that would be necessary to meet compliance and fulfill the Ports’ obligations as currently written in this draft regulation. CARB has not included any of these costs in their revisions, even with the provision of invoices and information directly from the Port of Long Beach financial system.

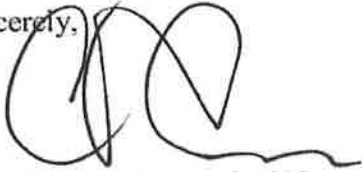
In addition, Port staff resources are limited. The staff that are currently designing the zero-emission terminal infrastructure for technology demonstration projects, and future full-scale deployments are the same staff members who would be responsible for designing the

infrastructure to support the new At Berth Regulation. This underscores the need for prioritizing programs and funding, as described above and in previous letters, in order to determine how to most effectively allocate our resources to participate in the development and implementation of CARB's regulatory program.

The Ports thank CARB staff for hosting additional workshops, engaging with us directly, and their consideration of the comments contained in this letter as well as in the attached Appendix.

We look forward to continuing to meet with CARB staff in the future to further discuss the proposed amendments to the At Berth Regulation. Please feel free contact us with any questions or concerns regarding this letter.

Sincerely,



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Director of Environmental Management
Port of Los Angeles



MATTHEW ARMS
Acting Director of Environmental Affairs
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Attachment

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APPENDIX A Port of Los Angeles Response to CARB At Berth Regulation Berth Draft Regulation (version May 8, 2019)

The Port of Los Angeles (POLA or Port) appreciates this opportunity to provide more detailed comments on the California Air Resources Board (CARB) draft regulation “Control Measure for Ocean-going Vessels At Berth” (version May 8, 2019). The Port has some concerns regarding tankers and the remediation fees.

Tankers

POLA had provided specific information about our tanker terminals in our previous joint letter with Port of Long Beach on May 20, 2019. Many of our tanker terminals are being redesigned to meet California State Lands Commission (CSLC) Chapter 31.F 2016 California Building Code, Title 24, Part 2, Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) requirement. MOTEMS is a comprehensive set of codes and standards for analysis, design, inspection/maintenance, and operation of existing and new marine oil terminals in the State of California. MOTEMS requirements will ensure better resistance to earthquakes, protect the public and the environment, and reduce the potential of an oil spill, while maintaining the operation and viability of the marine oil facility.

The new terminal designs will limit the number of emission control strategies that our tanker terminals will be able to utilize. A majority of the new designs do not leave any space for a land-side alternative emission control technology strategy. There is also no shore power infrastructure in the design drawings at this time, nor have there been any discussion from our tanker terminals to install shore power. Finally, as stated in POLA’s appendix in the joint letter to CARB on May 20, 2019, there are various areas throughout the Port where navigation of the waterways would preclude the use of a barge-based system.

Two of our terminals have completed their environmental document and design (Shell and PBF). Construction will soon begin at these terminals and is unlikely to be halted due to this regulation to redesign the terminals. CSLC would be averse to any delays to these construction projects as they are meant to protect the public and the environment. Other terminals currently working on their environmental documents and designs are also unlikely to redesign their terminals for CARB’s At Berth regulation as there is currently no CARB certified emission control technology for tankers. The terminals would not be able

to wait for the technology to become available in order to design their terminals as they already need to meet MOTEM standards.

The Port stresses the need for CARB to conduct a feasibility assessment to better inform this regulation, especially for tankers due the many variables and restrictions associated with this industry.

Remediation Fund

CARB has set remediation fees in Table XVIII of the “Control Measure for Ocean-Going Vessels At Berth Cost Analysis Inputs and Assumptions for Standardized Regulatory Impact Assessment,” that would be used for construction and repair projects.

Table XVIII. Remediation Fee Costs

Data Input	Value			Basis
Hourly remediation fee for terminal and for vessel, for each vessel type	Vessel Type	Vessel Hourly Fee	Terminal Hourly Fee	Staff analysis using Carl Moyer formula to calculate average emissions in tons per hour by vessel category. Product and crude tanker values were averaged for cost estimation purposes, however the fee would be dependent on the vessel type. Note that these values are estimates based on current Staff analyses at the time this document was prepared, and do not necessarily represent the exact fees that would apply.
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Which terminals would offer the remediation fee as an option?	All (100%)			Staff assumes that all terminals would offer the remediation fee as an option.

POLA owns and maintains shore power infrastructure at our terminals. Construction and repairs to shore power infrastructure are conducted through the Port. We are concerned that the mechanism used to determine the amount paid to the remediation fund is unreasonable for long construction or repair projects. There are instances where unforeseen repairs may take longer than a few months due to the need to order equipment, coordinate times for terminal shutdown during repairs, or other issues that may come up. The current scheme for calculating payment to the remediation fund is based on an hourly basis per a call. For extended periods where shore power will not be accessible, the cost will be extraordinarily high for industry or the Port as shown in the example provided below.

The Port recently upgraded our World Cruise Center to allow for 11 kV and 6.6 kV shore power connections for cruise vessels. This construction required a new transformer at the Cruise Center. The goal of the construction was to provide enough power for the large cruise ships to plug into shore power at POLA. The construction occurred from June 30, 2017 through April 23, 2018, and during the electrical upgrade no visiting cruise vessels were able connect to shore power. Alternative shore power was not an option either since there are no CARB-certified alternative emission control technologies for cruise vessels. The total number of hours for cruise vessels berthed at the World Cruise Center during the construction was 1,056.55 hours. Based on the hourly fee for cruise in Table XVIII, the hypothetical remediation fee for this construction project would have cost \$13,607,307 (1,056.55 hour x \$12,879/hour). The total cost of the electrical upgrade itself

was about \$11 million. This hypothetical remediation fee would have more than doubled the cost of this construction project that took less than a year to complete.

Since there are currently only two CARB-certified alternative emission control systems available at the Ports of Los Angeles and Long Beach, for long periods of construction or repair, there is uncertainty with respect to the availability of these systems in the future. In cases where a system cannot be secured, the remediation fee compliance mechanism would have to be utilized. As shown in our example above, the fee could increase to amounts that are not sustainable to industry or the Port. In our previous and current comment letters, the Ports request that CARB conduct a feasibility assessment. This will help determine the rate for the remediation fund as the current remediation fee costs will be too high for these prolonged instances of shore power construction or repair.