State of California
Air Resources Board

BOARD ITEM SUMMARY

ITEM # 20-8-1: Public Hearing to Consider Proposed Control Measure for Ocean-Going Vessels at Berth

STAFF RECOMMENDATION:
The California Air Resources Board (CARB or Board) staff recommends that the Board adopt the proposed Board Resolution, which in turn would adopt the proposed Control Measure for Ocean-Going Vessels at Berth (Proposed Regulation). This is the final of three public hearings on this item. The first public hearing was held on December 5, 2019, when staff presented its initial version of the Proposed Regulation. The second public hearing was an informational item on June 25, 2020, when staff discussed additional changes with the Board.

DISCUSSION:
Freight transport is a significant source of emissions that impacts public health throughout the State. Progress is being made in reducing emissions from freight; however, there are still significant health impacts for Californians living and working in neighborhoods that are heavily impacted by air pollution associated with freight sources. Controlling emissions from more vessels visiting California ports and marine terminals is critical to meet our public health mandates and climate goals.

In 2007, the Board adopted the existing At-Berth Regulation (Existing Regulation). The Existing Regulation was designed to reduce diesel particulate matter (DPM), oxides of nitrogen (NOx), and greenhouse gas (GHG) emissions from the at-berth operation of auxiliary engines on container and refrigerated cargo (reefer) vessel fleets with more than 25 visits per calendar year and passenger/cruise vessel fleets with more than five visits per year to a regulated California port. Typically, when a vessel is docked at berth, auxiliary engines are used to provide ship-board electricity for lighting, navigation equipment, refrigeration of cargo, and other equipment. The Existing Regulation changed this practice by requiring regulated vessels to turn off their auxiliary engines at berth and plug into grid-based electricity or utilize alternative technologies approved by CARB to achieve comparable emissions reductions. These requirements apply at the six largest ports in California: the Ports of Los Angeles, Long Beach, Oakland, Hueneme, San Francisco, and San Diego. Implementation of the Existing Regulation began in 2014.

At the March 2017 CARB Board Meeting, the Board directed CARB staff to strengthen the at-berth requirements to provide further emissions reductions and increase public health benefits. Consistent with the Board direction, the new Proposed Regulation builds upon the significant emissions reductions that were achieved with the Existing

Regulation. The Proposed Regulation will provide regional air quality and public health benefits in communities near ports, many of which are disadvantaged communities. These benefits result from additional emissions reductions of DPM, fine particulate matter (PM2.5), NOx, Reactive Organic Gases (ROG), GHG, and black carbon, beyond those realized by the Existing Regulation.

The Proposed Regulation would implement several changes to the structure of the Existing Regulation in order to achieve additional emissions reductions and assist with challenges in meeting compliance obligations due to operational difficulties with the Existing Regulation. The Proposed Regulation would also expand the scope of the Existing Regulation by achieving additional emissions reductions through an increase in the number of controlled visits from the currently regulated vessel categories and through the inclusion of new vessel categories (tanker and roll on-roll off [ro-ro or auto carrier] vessels), new ports, and independent marine terminals. The overall strategy of the Proposed Regulation leverages existing control technologies, such as shore power and capture and control systems, to adapt them to additional vessel types but also provides an Innovative Concept Compliance Option to allow for potentially more cost-effective near-term emission reduction options. The Proposed Regulation also requires staff to conduct an interim evaluation of new technologies and applications, and provide an analysis and findings in a report by December 1, 2022.

The majority of the provisions in Staff's proposed new Control Measure (including the new emissions control requirements [see Table 1 below]) will begin on January 1, 2023, and will largely supersede the 2007 At-Berth Regulation (Existing Regulation) on that date.

Table 1: Compliance Start Dates by Vessel Type	
January 1, 2023	Container and refrigerated cargo vessels
January 1, 2023	Passenger vessels
January 1, 2025	Roll-on roll-off vessels
January 1, 2025	Tanker vessels that visit the ports of Los Angeles or Long Beach
January 1, 2027	All remaining tanker vessels

However, for a well-ordered transition between the Regulations, a limited number of provisions from the new Control Measure, primarily concerning planning, application and approval aspects, will begin prior to January 1, 2023. Also, some of the Existing Regulation provisions, such as recordkeeping and reporting, will extend past January 1, 2023.

In support of this regulatory proposal, CARB staff conducted more than 250 meetings, workshops, webinars, phone calls, and site visits with members of impacted communities, environmental justice advocates, air districts, industry stakeholders (including vessel operators, ports, terminal operators, industry associations, and alternative technology operators), the United States Coast Guard, the California State

Lands Commission, and other agencies to discuss concepts for the Proposed Regulation and address various concerns that were raised throughout the regulatory development process.

SUMMARY AND IMPACTS:

Benefits

The Proposed Regulation would provide health benefits for California communities and a number of other local and international benefits. The Proposed Regulation has a statewide valuation of avoided health impacts of about $2.32 billion through 2032. There are also additional health benefits associated with the emissions reductions that are currently not monetized including elevated vulnerability and impacts in disadvantaged communities, brain and lung health, cancer risk and birth outcomes. In addition, the Proposed Regulation would reduce the potential cancer risk from at berth emissions by approximately 55 percent.

The Proposed Regulation also has several other benefits including but not limited to: providing job opportunities for emissions control equipment manufacturers and installers, as well as engineering and construction companies; encouraging research and development of new emissions control technologies; and promoting the use of shore power and other cleaner vessel initiative programs worldwide.

Economic Impacts

The Proposed Regulation has a range of potential economic impacts, which include direct costs to terminal and vessel operators, and California ports. There are also a broader set of macroeconomic impacts across California's economy. From 2021 through 2032, the Proposed Regulation is estimated to result in total direct costs to terminal and vessel operators and California ports of $2.23 billion. The Proposed Regulation is expected to have negligible macroeconomic impacts, considering the size and diversity of California's economy.

Environmental Analysis

CARB, as the lead agency for the Proposed Regulation, has prepared a final Environmental Analysis (Final EA) which analyzes the Proposed Regulation in accordance with the requirements of CARB's regulatory program certified by the Secretary of Natural Resources. The Final EA provides a programmatic environmental analysis of an illustrative, reasonably foreseeable compliance scenario that could result from implementation of the Proposed Regulation. CARB also prepared the Response to Comments on the Draft EA, which includes responses to California Environmental Quality Act (CEQA) related comments received during the 45-day comment period, the subsequent comment periods on the proposed modifications, and comments received during the Board hearings.

The Final EA concluded implementation of the Proposed Regulation could result in: less than significant impacts, or no impacts, to energy demand, land use, air quality, GHG, population, employment and housing, public services, and recreation. The Final EA also concluded that implementation of the Proposed regulation could result in potentially significant adverse impacts to aesthetics, agriculture and forest resources, air quality (construction-related emissions), biological resources, cultural resources and tribal resources, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, noise and vibration, transportation and traffic, and utilities and service systems. The potentially significant and unavoidable adverse impacts are primarily related to short-term, construction-related activities needed to develop the infrastructure that would be used to reduce emissions under the Proposed Regulation.

While the Proposed Regulation's potentially significant impacts in some resource areas could be reduced to a less-than-significant level by mitigation measures that can and should be implemented by local lead agencies, such mitigation is beyond CARB's authority to implement and enforce. Therefore, the Final EA takes the conservative approach in its post-mitigation significance conclusions and discloses, for CEQA compliance purposes, that impacts from the development and operation of new facilities or modification of existing facilities associated with reasonably foreseeable compliance responses to the Proposed Regulation could be potentially significant and unavoidable with regard to multiple environmental resource areas identified above.