TITLES 13 AND 17. CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC HEARING TO CONSIDER PROPOSED CONTROL MEASURE FOR OCEAN-GOING VESSELS AT BERTH

This notice announces the availability of the proposed Control Measure for Ocean-Going Vessels at Berth and a Draft Environmental Analysis (Draft EA) for public comment. The California Air Resources Board (CARB or Board) will conduct a public hearing at the time and place noted below to consider the proposed Control Measure for Ocean-Going Vessels At Berth.

DATE: December 5, 2019

TIME: 10:00 A.M.

LOCATION: DeFremery Park Recreation Center
1651 Adeline Street
Oakland, California 94607

This item will be considered at a meeting of the Board, which will commence at 10:00 a.m., December 5, 2019. Please consult the agenda for the hearing, which will be available at least ten days before December 5, 2019, to determine the time at which this item will be considered.

WRITTEN COMMENT PERIOD AND SUBMITTAL OF COMMENTS

In accordance with the Administrative Procedure Act, interested members of the public may present comments orally or in writing at the hearing and may provide comments by postal mail or by electronic submittal before the hearing. The public comment period for this regulatory action will begin on October 18, 2019. Written comments not physically submitted at the hearing must be submitted on or after October 18, 2019, and received **no later than** December 2, 2019. Any written comments on the Draft EA must be submitted on or after October 18, 2019, and received **no later than** December 2, 2019. CARB requests that when possible, written and email statements be filed at least 10 days before the hearing to give CARB staff and Board members additional time to consider each comment. The Board also encourages members of the public to bring to the attention of staff in advance of the hearing any suggestions for modification of the proposed regulatory action. Comments submitted in advance of the hearing must be addressed to one of the following:

Postal mail: Clerks' Office, California Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal: http://www.arb.ca.gov/lispub/comm/bclist.php

Please note that under the California Public Records Act (Gov. Code, § 6250 et seq.), your written and oral comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request.

Additionally, the Board requests but does not require that persons who submit written comments to the Board reference the title of the proposal in their comments to facilitate review.

AUTHORITY AND REFERENCE

This regulatory action is proposed under the authority granted in California Health and Safety Code, sections 38560, 38562, 39600, 39601, 39650, 39658, 39659, 39666, 43013, and 41511. This action is proposed to implement, interpret, and make specific sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 39674, 41510, 41511, 41701, and 43016.

CARB has authority under California law to adopt the proposed regulations. Health and Safety Code section 43013 provides broad authority for CARB to adopt emission standards and other regulations to reduce emissions from new and in-use vehicular, nonvehicular and other mobile sources. CARB is expressly authorized to adopt emission standards and other regulations for marine vessels, to the extent permitted by federal law. (Health & Safety Code § 43013(b).) The Legislature has also directed CARB to "act as expeditiously as is feasible to reduce nitrogen oxide emissions from diesel vehicles, marine vessels, and other categories of vehicular and mobile sources which significantly contribute to air pollution problems." (Health & Safety Code § 43013(h).)

CARB is further mandated to reduce air toxics emissions under California's air toxics laws. Health & Safety Code section 39666 directs CARB to adopt ATCMs to "reduce emissions of toxic air contaminants from non-vehicular sources" for identified TACs such as diesel PM, formaldehyde, benzene, and 1,3 butadiene.

CARB is also mandated under Health & Safety Code sections 38500 et seq. to reduce greenhouse gas emissions, which are emitted at substantial levels by ships hotelling at California ports. For example, section 38560 mandates CARB to adopt rules and regulations "to achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions from sources or categories of sources, subject to the criteria and schedules set forth in this part."

Additionally, other statutes mandate CARB to do all things necessary and proper to achieve its statutory mandates. Section 39600 requires CARB to "do such acts as may be necessary for the proper execution of the powers and duties granted to, and imposed upon, the state board by this division and by any other provision of law." Section 39601 requires CARB to adopt "standards, rules, and regulations" which are

“necessary for the proper execution of the powers and duties granted to, and imposed upon, the state board by this division and by any other provision of law.”

INFORMATIVE DIGEST OF PROPOSED ACTION AND POLICY STATEMENT OVERVIEW (GOV. CODE, § 11346.5, subd. (a)(3))

Sections Affected:

Proposed amendment to California Code of Regulations, title 13, division 3, chapter 5.1, section 2299.3; and title 17, division 3, chapter 1, subchapter 7.5, section 93118.3.

Proposed adoption of California Code of Regulations, title 13, sections 93130 through 93130.20.

Documents Incorporated by Reference (Cal. Code Regs., tit. 1, § 20, subd. (c)(3)):

The following documents, test methods, and model would be incorporated in the regulation by reference as specified by section:

- ISO 8217 Petroleum products – Fuels (class F) Specifications of marine fuels, Fourth edition June 15, 2010, section 93130.2(b)(38)
- ISO 8217 Petroleum products – Fuels (class F) Specifications of marine fuels, Third edition November 1, 2005, section 93130.2(b)(38)
- ISO 8178, Reciprocating internal combustion engines – Exhaust emission measurement – Part 1: Test-bed measurement of gaseous and particulate exhaust emissions, August 15, 1996, section 93130.5(g)(1);
- ISO 8178, Reciprocating internal combustion engines – Exhaust emission measurement – Part 2: Measurement of gaseous and particulate exhaust emissions at site, August 15, 1996, section 93130.5(g)(1);
- ISO 8178, Reciprocating internal combustion engines – Exhaust emission measurement – Part 4: Test cycles for different engine applications, August 15, 1996, section 93130.5(g)(1);
- CARB - FRAC (Excel) - Fraction data for source categories, February 21, 2019, section 93130.5(g)(3)
- CARB - PMPROF REF (Excel) - Reference number for PM profiles, July 8, 2019, section 93130.5(g)(2)
- Source Test Procedure ST-1B Ammonia Integrated Sampling, January 20, 1982, section 93130.5(g)(6);
- ISO 8754, Petroleum products – Determination of sulfur content – Energy-dispersive X-ray fluorescence spectrometry, July 15, 2003, section 93130.5(g)(7);
- CARB - Method 100, Procedures for Continuous Gaseous Emission Stack Sampling, July 28, 1997, section 93130.5(g)(8);
- California Environmental Protection Agency Air Resource Board Recommended Emissions Testing Guidelines for Ocean-going Vessels, June 20, 2012, section 93130.5(h)(4);

- Bureau of Mines Information Circular 8333 Ringelmann Smoke Chart (Revision of IC 7719), May 1967, 93130.6(a)(1); and
- 40 CFR Pt. 60, App. A-7, Method 25A – Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer, December 23, 1971, section 93130.5(g)(3)
- 40 CFR Pt. 60, App. A-4, Method 9 – Visual Determination of the Opacity of Emissions from Stationary Sources, December 23, 1971, section 93130.6(b)
- United Nations, International Law Commission, Responsibility of States for Internationally Wrongful Acts, 2001, section 93130.4(a)(1)(B)

Background and Effect of the Proposed Regulatory Action:

Existing Regulation

In December 2007, CARB approved the *Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port* Regulation (Existing Regulation).[1] The purpose of the Existing Regulation is to reduce emissions from diesel auxiliary engines on container vessels, reefer vessels, and passenger cruise vessels, while berthing at a California port. At berth, auxiliary engines are used by vessels to run power for lighting, ventilation, pumps, communication, heating, and other onboard equipment while a vessel is docked. Under the Existing Regulation, container, reefer, and cruise vessel fleets that visit specified California ports, as described below, are the regulated parties.

Container or reefer vessels that make 25 visits or more per calendar year to a regulated port and cruise vessels that make 5 or more visits per year to a regulated port are subject to the requirements of the Existing Regulation. Smaller vessel fleets (i.e., fleets that are comprised of container and reefer vessels that make fewer than 25 visits or cruise with fewer than 5 visits) and vessels that do not often frequent California ports are exempt from the Existing Regulation. The California ports included in the Existing Regulation are Ports of Los Angeles (POLA), Long Beach (POLB), Oakland, Richmond, San Diego, San Francisco, and Hueneme.

- The Existing Regulation provides fleet operators two different pathway options to comply: the Reduced On-board Power Generation (ROPG or Shore Power) option, or the Equivalent Emissions Reduction (EER or Equivalent) option.

Compliance requirements for the ROPG pathway began in 2014 with a 50 percent visit and 50 percent power reduction requirement. This means a fleet must reduce its auxiliary engine power by 50 percent from the fleet's baseline power generation (baseline power generation equals a fleet's berthing time multiplied by the auxiliary engine[s] power requirement) during the vessel's stay on 50 percent of the fleet's

[1] 17 CCR § 93118.3. Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port, https://ww3.arb.ca.gov/regact/2007/shorepwr07/93118-t17.pdf.

annual vessel visits. These percentage requirements increased to 70 percent in 2017, and will increase to 80 percent in 2020, which will represent full implementation of the Existing Regulation. [2]

The EER pathway requires a percentage of emissions reduction below a fleet's baseline emissions. The baseline emissions for a vessel fleet is calculated by multiplying each individual vessel's berthing time with the vessel's electrical power requirements. Fleets following this pathway can comply using shore power or a CARB approved alternative control technology, such as a barge-based capture and control system. Compliance under this option began in 2010 with a 10 percent reduction and phased in to 50 percent in 2014 to match the ROPG pathway. Since 2014, the reduction requirements for both pathways have aligned at 70 percent in 2017 and 80 percent in 2020. [3]

The majority of vessels subject to the Existing Regulation comply using shore power. A small percentage of vessels that have not installed shore power use a CARB approved barge-based capture and control system for compliance. Barge-based capture and control systems can also be used in the event of shore power equipment failure or when a shore power berth is unavailable. Currently there are two barge-based CARB approved alternative technologies available for vessels to use for compliance in lieu of shore power. One system is located at POLA and the other at POLB.

Proposed Regulation

CARB staff are proposing adoption of the *Control Measure for Ocean-Going Vessels At Berth*, hereafter referred to as the "*Proposed Regulation*." The Proposed Regulation would supersede the Existing Regulation effective January 1, 2021, as specified in the proposed regulatory text.

The Proposed Regulation is designed to achieve added public health and air quality benefits. These benefits result from additional emissions reductions of oxides of nitrogen (NO_x), diesel particulate matter (DPM), particulate matter 2.5 (PM2.5), reactive organic gas (ROG), greenhouse gas (GHG) emissions, and black carbon beyond those realized by the Existing Regulation. The Proposed Regulation accomplishes this by introducing emission control requirements to: additional ports and terminals, including marine terminals that operate independently from a port or port authority, and vessels not covered by the Existing Regulation.

The Proposed Regulation intends to simplify and streamline enforcement of the current regulatory requirements by using a regulatory structure different than the Existing

[2] 17 CCR § 93118.3. (d)(1), Reduced Onboard Power Generation Option, Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port, page 8, https://ww3.arb.ca.gov/regact/2007/shorepwr07/93118-t17.pdf.
[3] 17 CCR § 93118.3. (d)(2), Equivalent Emissions Reduction Option, Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port, page 12, https://ww3.arb.ca.gov/regact/2007/shorepwr07/93118-t17.pdf.