

**FINAL REGULATION ORDER**  
**CONTROL MEASURE FOR OCEAN-GOING VESSELS AT BERTH**

Amend title 13, division 3, chapter 5.1, section 2299.3; and title 17, division 3, chapter 1, subchapter 7.5, section 93118.3; California Code of Regulations (CCR), and

Adopt new title 17, division 3, chapter 1, subchapter 7.5, sections 93130-93130.22, CCR, to read as follows:

(Note: The amendments to title 13, section 2299.3 and title 17, section 93118.3 are shown in underline to indicate additions and ~~strikeout~~ to indicate deletions from the existing regulatory text. The symbol "\*\*\*" means that intervening text not amended is not shown. The other sections set forth below (sections 93130 through 93130.22) are new sections proposed in this rulemaking. Therefore, for simplicity, the language in those sections is shown in "normal type")

**Section 2299.3. Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port.**

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(c) On January 1, 2023, section 93118.3 of title 17 of the California Code of Regulations shall be superseded by sections 93130 through 93130.22 of title 17 of the California Code of Regulations, as specified in section 93130. However, if sections 93130 through 93130.22 collectively are repealed or deemed invalid in their entirety by a final court decision, the requirements of section 93118.3 of title 17 of the California Code of Regulations shall again become operative. This subsection shall not be construed as expanding or limiting either the application or requirements of sections 93130 through 93130.22, title 17, California Code of Regulations, but is intended to alert affected persons of the requirements regarding the operation of auxiliary diesel engines on ocean-going vessels at-berth in a California port and other provisions in that section.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39650, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

**Section 93118.3. Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port.**

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(b) Applicability and General Exemptions.

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(4) On January 1, 2023, this section 93118.3, and section 2299.3 of title 13 of the California Code of Regulations, shall be superseded by sections 93130 through 93130.22 of title 17 of the California Code of Regulations, as specified in section 93130. However, if sections 93130 through 93130.22 collectively are repealed or deemed invalid in their entirety by a final court decision, the requirements of section 93118.3 of title 17 and section 2299.3 of title 13 of the California Code of Regulations shall again become operative. This section shall not be construed as expanding or limiting either the application or requirements of sections 93130 through 93130.22, title 17, California Code of Regulations, but is intended to alert affected persons of the state's requirements regarding ocean-going vessels, ports, terminals, berths, and emission control strategies for ocean-going vessels.

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Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39650, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

## **Section 93130. Control Measure for Ocean-Going Vessels At Berth.**

The Control Measure for Ocean-Going Vessels At Berth is set forth in sections 93130 through 93130.22, title 17, California Code of Regulations, and is referenced as the "Control Measure" within those sections.

The Control Measure is designed to supersede section 93118.3 of title 17 and section 2299.3 of title 13 of the California Code of Regulations on January 1, 2023. However, on January 1, 2021, certain provisions in this Control Measure shall become operative alongside the requirements of section 93118.3 of title 17 and sections 2299.3 of title 13 of the California Code of Regulations. These provisions are: sections 93130.5 (e) Application process (for a CARB approved emission control strategy), 93130.14 (a) Terminal Plans, 93130.14 (b) Port Plans, 93130.14 (d) Interim evaluation for new technologies and applications, 93130.16 Remediation Fund Administration, 93130.17 (b) Application and approval process (for the innovative concept compliance option), and 93139.20 Violations (to allow for enforcement of the provisions that become operative January 1, 2021, as specified in this paragraph). These requirements apply before 2023, as specified, and are necessary before the Control Measure fully supersedes section 93118.3 of title 17 and section 2299.3 of title 13 of the California Code of Regulations.

On January 1, 2023, the remainder of the requirements of this Control Measure shall supersede the requirements of section 93118.3 of title 17 and section 2299.3 of title 13 of the California Code of Regulations. However, the reporting and recordkeeping requirements of section 93118.3 (g) of title 17 shall remain in effect for compliance years through 2022. The annual statements of compliance for 2022 in section 93118.3 (g)(1)(A)(2) and (g)(2)(A)(3) are still due to the Executive Officer on March 1, 2023. Annual Wharfinger data from the ports under section 93118.3 (g)(3) is still due to the Executive Officer on April 1, 2023. Compliance records in section 93118.3 (g)(1)(B), (g)(2)(B), and (g)(3)(B) are still required to be maintained for five years, through December 31, 2027.

As specified in section 93130.22, the individual provisions in this Control Measure are severable. However, if sections 93130 through 93130.22 collectively are repealed or deemed invalid in their entirety by a final court decision, the requirements of section 93118.3 of title 17 and section 2299.3 of title 13 of the California Code of Regulations shall again become operative.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

### **Section 93130.1. Purpose and Intent.**

The purpose of this Control Measure is to reduce oxides of nitrogen (NO<sub>x</sub>), reactive organic gases (ROG), particulate matter (PM), diesel particulate matter (DPM), and greenhouse gas (GHG) emissions from ocean-going vessels while docked at berth at California ports. This Control Measure also ensures that ocean-going vessels do not create excess visible emissions. California's ocean-going vessel operations are largely situated in and around at-risk communities that directly benefit from localized reductions of NO<sub>x</sub> and PM. This contributes to meeting community health goals set forth in Assembly Bill 617 (Garcia, Stats. 2017, ch. 136). Furthermore, NO<sub>x</sub> and PM emission reductions contribute to meeting California's State Implementation Plan obligations for attainment, and further California Air Resources Board's (CARB) obligations under sections 39660 et seq. and 43013 et seq. of the Health & Safety Code. Additionally, reductions from shore power have a benefit of reducing GHG emissions. This contributes to meeting California's GHG emission reduction targets established in the California Global Warming Solutions Act of 2006 (Division 25.5 of the Health and Safety Code) and Senate Bill 32 (Section 38566 of the Health and Safety Code).

The intent of this Control Measure is to ensure that emissions from ocean-going vessels are reduced using a CARB approved emission control strategy to control PM, NO<sub>x</sub>, and ROG emissions at berth without increasing overall GHG emissions from this Control Measure, and that every ocean-going vessel meets visible emission standards at berth and at anchor. All parties necessary to achieving emission reductions from ocean-going vessels at berth have responsibilities and requirements under this Control Measure including but not limited to vessel operators, terminal operators, ports, and operators of CARB Approved Emission Control Strategy (CAECS).

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

### **Section 93130.2. Section Summary, and Definitions.**

(a) Section summary.

Section 93130. Control Measure for Ocean-Going Vessels At Berth.

Section 93130.1. Purpose and Intent.

Section 93130.2. Section Summary, and Definitions.

(a) Section summary.

(b) Definitions.

Section 93130.3. Applicability.

(a) General applicability.

(b) Federal requirements.

Section 93130.4. Exceptions.

- (a) Non-stop voyages.
- (b) Government and military vessels.

Section 93130.5. CARB Approved Emission Control Strategy.

- (a) Executive Order requirement.
- (b) Requirement to reduce emissions.
- (c) Shore power.
- (d) Requirements for CARB approval of an emission control strategy.
- (e) Application process.
- (f) Test plan requirements.
- (g) Source testing.
- (h) Application submittals to CARB.
- (i) CARB approval of the control strategy.
- (j) Review of CAECS.
- (k) Records retention.
- (l) Revoking a CAECS.

Section 93130.6. Opacity Requirements.

Section 93130.7. Vessel Operator Requirements.

- (a) Shore power requirements for at berth emission reductions.
- (b) Requirements for vessel auxiliary engines.
- (c) Requirements for tanker auxiliary boilers on tanker vessels with steam driven product pumps.
- (d) Visits by vessels with on-board control strategies.
- (e) Vessel compliance checklists.
- (f) Submissions.
- (g) Records retention.

Section 93130.8. Vessel Visit Exceptions.

- (a) Vessel safety and emergency event.
- (b) Bulk and general cargo vessels.
- (c) Vessel commissioning.
- (d) Research.
- (e) Vessels visiting a low activity terminal.
- (f) Vessel incident event (VIE) and terminal incident event (TIE).
- (g) Remediation.
- (h) Innovative concept.

Section 93130.9. Terminal Operator Requirements.

- (a) Shore power requirements for at berth emission reductions.
- (b) Visits to berths at terminals without shore power.
- (c) Visits by vessels with on-board control strategies.
- (d) Terminal operator compliance checklist.
- (e) Submissions.
- (f) Construction or repair.

(g) Records retention.

Section 93130.10. Terminal Exceptions.

- (a) Vessel visits to a low activity terminal.
- (b) Bulk and general cargo vessels.
- (c) Vessel commissioning.
- (d) Terminal safety and emergency event.
- (e) Research.
- (f) Terminal incident event (TIE) and vessel incident event (VIE).
- (g) Remediation.
- (h) Innovative concept.

Section 93130.11. Vessel Incident Events (VIE) and Terminal Incident Events (TIE).

- (a) VIEs and TIEs.
- (b) Table of VIEs and TIEs rates.
- (c) Request for TIEs and VIEs.
- (d) Expiring VIEs and TIEs.
- (e) Retiring VIEs and TIEs.

Section 93130.12. CAECS Operator Requirements.

- (a) Subcontractor services and agreements.
- (b) CAECS checklist.
- (c) Malfunction reporting and recordkeeping.
- (d) Corrective action report.
- (e) Records retention.
- (f) Submissions.

Section 93130.13. Port Requirements.

- (a) Port infrastructure.
- (b) Shared responsibility with terminals.
- (c) Cessation of obligation.
- (d) Wharfinger data.
- (e) Submissions.

Section 93130.14. Terminal and Port Plans and Interim Evaluation.

- (a) Terminal plans.
- (b) Port plans.
- (c) Review of terminal and port plans.
- (d) Interim evaluation for new technologies and applications.

Section 93130.15. Remediation Fund Use

Section 93130.16. Remediation Fund Administration.

Section 93130.17. Innovative Concept Compliance Option.

- (a) General requirements for using an innovative concept compliance option.
- (b) Application and approval process.
- (c) Reporting visit information.

- (d) Annual reporting.
- (e) Submissions.
- (f) Revocation or modification of approved innovative concepts.
- (g) Responsibility to ensure compliance.

Section 93130.18. Summary of Responsibilities.

Section 93130.19. Sending information to CARB.

Section 93130.20. Violations.

Section 93130.21. Sunset.

Section 93130.22. Severability.

(b) Definitions.

The definitions in Health and Safety Code sections 39010 through 39060 shall apply to this Control Measure, except as otherwise specified in this section.

- (1) "Assembly Bill (AB) 617 Community Emissions Reduction Program" means a program and/or plan to achieve emissions reductions in a location that has been selected by CARB's Governing Board to prepare a community emissions reduction program pursuant to Health and Safety Code section 44391.2 (c).
- (2) "Alternative control technologies" means technologies, techniques, or measures that reduce the emissions of NO<sub>x</sub>, PM, ROG, or GHG from an auxiliary engine and/or tanker auxiliary boiler other than shutting it down and operating on shore power.
- (3) "Ammonia slip" means when ammonia passes unreacted through a SCR system.
- (4) "Anchorage" means a vessel's allotted place to moor in place or drop anchor in regulated California waters.
- (5) "Applicant" means any person who requests an approval from CARB for an emission control strategy, to administer a remediation fund, or of an innovative concept.
- (6) "Application" means a formal request from an applicant using the process outlined in section 93130.5 of this Control Measure for a CAECS, for the process outlined in section 93130.16 of this Control Measure for remediation fund administration, or for the process outlined in section 93130.17 of this Control Measure for an innovative concept.
- (7) "Articulated tug barge" means a tanker barge that is mechanically linked with a paired tug that functions as one vessel. For the purposes of this Control Measure, articulated tug barges are not considered ocean-going vessels.

- (8) "Auxiliary boiler" means a steam generator on an ocean-going vessel designed primarily to provide steam for uses other than propulsion or pumping cargo.
- (9) "Auxiliary engine" means an engine on an ocean-going vessel designed primarily to provide power for uses other than propulsion, except that all diesel-electric engines shall be considered "auxiliary engines."
- (10) "Berth" means a vessel's allotted place at a wharf, pier, or dock. This does not include anchorages such as at the off-shore tanker terminal at El Segundo, or where passenger vessels tender at anchor such as at Santa Barbara, or Catalina.
- (11) "Bulk vessel" means a self-propelled ocean-going vessel constructed or adapted primarily to carry unpackaged dry bulk cargo. A bulk vessel may use vessel-based or shore-based equipment for loading and discharging of cargo.
- (12) "Calendar year" means the time period beginning on January 1 through December 31 of a single year.
- (13) "California ports (Ports)" means any port or independent marine terminal in California that receives an ocean-going vessel including:
  - (A) Landlord ports where the port owns the wharves which it rents or leases to a terminal operator;
  - (B) Operational ports where the port functions as a terminal operator; and
  - (C) Independent marine terminals.
- (14) "California time aggregate method" means the California State Implementation Plan method of calculating opacity emissions. The California time aggregate method is virtually identical to United States Environmental Protection Agency method 9 in the procedures the observer follows, but most notably differs in that the data is analyzed by counting the readings that exceeded the limit, rather than averaging all readings in a set.
- (15) "CARB" means the California Air Resources Board.
- (16) "CARB approved emission control strategy (CAECS)" means a method of reducing emissions from an ocean-going vessel at berth to a satisfactory level for compliance with the Control Measure and is verified and approved by CARB.
- (17) "CAECS operator" means any party who operates a CAECS to reduce emissions for compliance with this Control Measure.
- (18) "Charter" or "charter agreement" means an agreement or contract where one person rents, leases, hires, or uses ocean-going vessels

from another person to convey or transport goods or passengers to one or more designated locations.

- (19) "Charter company" means any person that is in the business of leasing, renting, or lending ocean-going vessel(s) to other companies or persons to convey or transport goods or passengers to one or more designated locations.
- (20) "Commissioned shore power vessel" means a shore power equipped vessel that visits a shore power berth at a terminal and has completed vessel commissioning at that terminal.
- (21) "Compliance period" means a period of time of up to five years during which an innovative concept may be used for compliance with this Control Measure, as set forth in section 93130.17 of this Control Measure.
- (22) "Container vessel" means a self-propelled ocean-going vessel constructed or adapted primarily to carry uniformly sized ocean freight containers.
- (23) "Diesel-electric engine" means a diesel engine connected to a generator that is used as a source of electricity for propulsion or other uses.
- (24) "Diesel engine" means an internal combustion, compression-ignition engine with operating characteristics substantially similar to the theoretical diesel combustion cycle. Regulating power by controlling fuel supply in lieu of a throttle indicates a compression ignition engine.
- (25) "Diesel particulate matter (DPM)" means the particles found in the exhaust of diesel engines, which may agglomerate and adsorb other species to form structures of complex physical and chemical properties.
- (26) "Distributed generation" means electrical power generation technologies, sources, equipment, or methods that produce electricity at or near the place of use.
- (27) "Docked at berth (at berth)" means the state of being secured to a berth.
- (28) "Executive Officer" means the Executive Officer of CARB, or his or her designee.
- (29) "Excess emissions" means air pollution emitted by a vessel at berth during a time period when the vessel operator is required to reduce emissions, but does not achieve the full required reductions.
- (30) "Exception" means a situation that results in a compliant visit with or without emission reductions.

- (31) "First line" means the time when a vessel's line is first attached to a berth in the process berthing the vessel.
- (32) "Fleet" means a group of vessels of the same vessel type that have agreed to utilize their combined Vessel Incident Events (VIEs) at a port or marine terminal and are registered with CARB by a person who is designated as that fleet's representative. Vessel operators shall designate their fleet for each visit in the vessel visit reporting requirements of section 93130.7(e)(4) of this Control Measure. Only the fleet's representative may authorize the use of a VIE for a visit by a vessel in the fleet.
- (33) "Foreign-flag vessel" means any vessel of foreign registry including vessels owned by United States citizen(s) but registered in a nation other than the United States.
- (34) "g/kW-hr" means grams per kilowatt hour.
- (35) "General cargo vessel" means a self-propelled ocean-going vessel constructed or adapted primarily to carry cargo that must be loaded individually, and that may or may not be in uniform-sized ocean freight containers. May use vessel-based or shore-based equipment for loading and discharging of cargo.
- (36) "Government or military vessel" means vessels operated by any branch of local, state, federal government military service, or by a foreign government, when such vessels are operated on government or military non-commercial service. This definition includes Coast Guard vessels. A commercial vessel that also carries some military cargo is not a government or military vessel unless the military is the vessel operator.
- (37) "Greenhouse gas" (GHG) means carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrogen trifluoride (NF<sub>3</sub>), nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and other fluorinated greenhouse gases.
- (38) "Grid-neutral" means emitting no more GHG emissions than if the strategy were powered by the California grid as represented in the most recent eGRID Summary Table for State Output Emission Rates as the California CO<sub>2</sub>e emissions rate.
- (39) "IMO number" means the vessel's International Maritime Organization (IMO) number which is a unique identifier for vessels.
- (40) "IMO NO<sub>x</sub> tier" means the NO<sub>x</sub> standards as set forth in the IMO MARPOL Annex VI and as certified by requirements set forth in IMO Regulation 13. Vessels without an IMO NO<sub>x</sub> tier are considered pre-tier I vessels.

- (41) "Independent marine terminal" means a terminal that operates independently from a port or port authority. An Independent Marine Terminal has all the responsibilities of a terminal and a port.
- (42) "Innovative concept" means a CARB approved strategy to reduce air pollution emissions from sources at or near a regulated port or marine terminal that can be used to achieve emission reductions for compliance with this Control Measure, as set forth in section 93130.17 of this Control Measure.
- (43) "Last line" means the time when the vessel is untied from the berth and the last line from the berth to the vessel is released.
- (44) "Lease" means a contract where one person conveys property or services to another person for a specific duration.
- (45) "Low activity terminal" means a terminal that has not previously exceeded the terminal thresholds in section 93130.10(a) of this Control Measure.
- (46) "Marine gas oil (MGO)" means any fuel that meets all the specifications for DMX or DMA grades as defined in Table I of International Standard ISO 8217, as revised on November 1, 2005, which is incorporated herein by reference, or DMX, DMA, or DMZ grades as defined in Table I of International Standard ISO 8217, as revised on June 15, 2010, which is incorporated herein by reference.
- (47) "Master" means the person who operates an ocean-going vessel or is otherwise in charge of the vessel's operations.
- (48) "Malfunction" means any sudden and unavoidable failure to operate in a normal manner by air pollution control equipment that is not caused in any way by poor maintenance, negligent operation, or any other reasonably preventable upset condition or equipment breakdown.
- (49) "Moor" means any permanent structure to which a vessel may be secured.
- (50) "Ocean-going vessel" means a commercial, government, or military vessel, excluding articulated tug barges, meeting any of these criteria:
  - (A) A vessel greater than or equal to 400 feet in length overall as defined in 50 CFR § 679.2, as adopted June 19, 1996;
  - (B) A vessel greater than or equal to 10,000 gross tons under the convention measurement (international system) as defined in 46 CFR § 69.51-.61, as adopted September 12, 1989; or

- (C) A vessel propelled by a marine compression ignition engine with a per-cylinder displacement of greater than or equal to 30 liters.
- (51) "Own" means having the incidents of ownership, including the legal title whether or not that person lends, or pledges an item; having or being entitled to the possession of the item as the purchaser under a conditional sale contract; or being the mortgagor of an item.
- (52) "Oxides of nitrogen (NO<sub>x</sub>)" means compounds of nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>), and other oxides of nitrogen, which are typically created during combustion processes and are major contributors to smog formation and acid deposition.
- (53) "Particulate matter (PM)" means any airborne finely divided material, except uncombined water, which exists as a liquid or solid at standard conditions (e.g., dust, smoke, mist, fumes, or smog).
- (54) "Particulate matter 2.5 (PM 2.5)" means any particulate matter with a diameter of less than 2.5 micrometers.
- (55) "Passenger vessel" means a self-propelled vessel constructed or adapted primarily to carry people.
- (56) "Person" has the same meaning as set California Code, Health and Safety Code section 39047.
- (57) "Physical constraint" at a terminal means an unavoidable barrier to provide a service due to the layout of a terminal or waterway where a state or federal public agency with jurisdiction over the resources effected by this Control Measure has made a safety determination that prevents the use of a CARB approved control strategy.
- (58) "Pilot on Board" means the vessel's pilot has boarded the vessel to assume navigational control to prepare for vessel departure.
- (59) "Port" see California Port.
- (60) "ppmdv" means parts per million on a dry volume basis.
- (61) "Privately owned United States Flag commercial vessel" means a vessel:
- (A) registered and operated under the laws of the United States,
  - (B) used in commercial trade of the United States,
  - (C) owned and operated by United States citizens, including a vessel under voyage or time charter to the Government, and
  - (D) a Government-owned vessel under bareboat charter to, and operated by, United States citizens.

- (62) "Reactive organic gases (ROG)" has the same meaning as set forth in subsection (a)(23) of section 2752 of title 13 of the California Code of Regulations.
- (63) "Ready to Work" means that the vessel is tied to the berth, the gangway has been lowered with netting down, and all government authorities with jurisdiction over the vessel visit have cleared the vessel.
- (64) "Refrigerated cargo vessel" (commonly known as "reefer") means a self-propelled vessel constructed or adapted primarily to carry refrigerated cargo. Refrigerated cargo vessels include vessels where the cargo may be stored in large refrigerated rooms within the vessel or vessels that primarily carry refrigerated cargo containers.
- (65) "Regulated California Waters" means any and all of the following:
- (A) All California internal waters;
  - (B) All California estuarine waters;
  - (C) All California ports, roadsteads, and terminal facilities (collectively "ports");
  - (D) All waters within three nautical miles of the California baseline, starting at the California-Oregon border and ending at the California-Mexico border at the Pacific Ocean, inclusive;
  - (E) All waters within 12 nautical miles of the California baseline, starting at the California-Oregon border and ending at the California-Mexico border at the Pacific Ocean, inclusive;
  - (F) All waters within 24 nautical miles of the California baseline, starting at the California-Oregon border to 34.43 degrees North, 121.12 degrees West; inclusive; and
  - (G) All waters within the area, not including any islands, between the California baseline and a line starting at 34.43 degrees North, 121.12 degrees West; thence to 33.50 degrees North, 118.58 degrees West; thence to 32.65 degrees North, 117.81 degrees West; and ending at the California-Mexico border at the Pacific Ocean, inclusive.
- (66) "Remediation fund" means an account established by a CARB approved fund administrator under the terms of a Memorandum of Understanding with CARB to provide incentive monies to activities that achieve emission reductions, not otherwise required by law or regulation, in communities impacted by excess emissions from vessels at berth.

- (67) "Responsible official" means any person(s) with the authority to determine the existence of emergency and safety events, and to substantiate that a vessel, terminal, port, or control equipment complies with requirements of this Control Measure.
- (68) "Responsible party" means any person with an obligation under this Control Measure.
- (69) "Roll-on/roll-off vessel" (commonly known as "ro-ro", "auto", or "vehicle carrier") means a self-propelled vessel constructed or adapted primarily to carry wheeled cargo that can be rolled on and off. Ro-ro vessels may carry exclusively automobiles (commonly known as a "pure car carrier") and/or a mixture of bulk equipment on wheels.
- (70) "Safety and emergency event" means an event where a responsible official reasonably determines that compliance with this Control Measure would endanger the safety of the vessel, crew, cargo, passengers, terminal, or terminal staff because of severe weather conditions, a utility event, or other extraordinary reasons beyond the control of the terminal operator or vessel operator.
- (71) "Selective catalytic reduction (SCR)" means an emission control system that reduces NO<sub>x</sub> emissions through the catalytic reduction of NO<sub>x</sub> in diesel exhaust by injecting nitrogen-containing compounds into the exhaust stream, such as ammonia or urea.
- (72) "Shore power" refers to electrical power being provided by either the local utility or by distributed generation to a vessel at berth.
- (73) "Tanker auxiliary boiler" means a steam generator on a tanker vessel used to offload liquid product.
- (74) "Tanker vessel" means a self-propelled vessel constructed or adapted primarily to carry liquid bulk cargo. Tanker vessels may carry petroleum crude, petroleum products, or non-petroleum based products, and are classified as either non-edible and dangerous or edible and non-dangerous.
- (75) "Terminal" means a terminal operator's facility consisting of adjacent wharves, piers, docks, other berthing locations and storage, which are used primarily for loading and unloading of passengers, cargo or material from vessels or for the temporary storage of this cargo or material on-site. Operational ports that rent a berth to vessel operators rather than lease to terminal operators shall treat that berth as a terminal.
- (76) "Terminal Incident Event (TIE)" is an exception provided to terminal operators to allow for a limited number of incidents where a vessel does not reduce emissions as required during a visit.

- (77) "Terminal operator" means a person who leases terminal property from a port to load and unload passengers, cargo or material from vessels or for the temporary storage of this cargo or material on-site. Operational ports that use a single berth to service an individual customer are the terminal operator and the customer's berth is a terminal.
- (78) "This Control Measure" means the Control Measure for Ocean-Going Vessels At Berth, California Code of Regulations, title 17, sections 93130-93130.22.
- (79) "Utility" shall have the same meaning and be used interchangeably with the term "Electric Utility" and means any person engaged in or, or authorized to engage in, generating, transmitting, or distributing electric power by any facilities, including, but not limited to, any such person who is subject to the regulation of the Public Utilities Commission. Pub. Resource Code, section 25108 as it read on January 7, 1975.
- (80) "Utility event" means the period of time during which any of the following events occurs; the utility event begins when such an event begins and ends when the event is over:
- (A) The utility serving the port or terminal cannot provide electrical power to the port because of a failure of equipment owned and maintained by the utility, a transmission emergency, distribution emergency, a California Independent System Operator (CAISO) or Los Angeles Department of Water and Power (LADWP) Stage 3 emergency, or the utility needs to reduce power to the port and/or terminal because of a sudden and reasonably unforeseeable natural disaster, such as, but not limited to, an earthquake, flood, fire, or fire prevention (including electric utility shutdowns to mitigate fire risk during high winds); or
  - (B) When the utility providing electrical power notifies the terminal operator(s) to reduce the use of grid-based electrical power in response to a transmission or distribution emergency, a CAISO or LADWP Stage 3 emergency, or to avoid a Stage 3 emergency if one is anticipated. The emergency event ends when CAISO or LADWP cancels the Stage 3 emergency or the utility notifies the terminal operator(s) that reduction in the use of grid-based electrical power is no longer necessary. The port may contact the terminal operator(s) on behalf of the utility if such an agreement exists between the utility and the port.
- (81) "United States Flag vessel" when used independently means either a United States government vessel or a privately owned United States Flag commercial vessel.

- (82) "Vessel" means watercraft used, or capable of being used, as a means of transportation. For the purposes of this Control Measure, "vessel" is used interchangeably with the term "ocean-going vessel."
- (83) "Vessel arrival" means the date and time that a vessel is initially tied to a berth with first line.
- (84) "Vessel commissioning" means the process undertaken by the vessel operator and terminal operator to ensure that the shore power equipment on the vessel is compatible with the shore power equipment on the terminal and that there are no safety issues for both the equipment and the personnel handling the connection.
- (85) "Vessel departure" means the date and time that a vessel casts off the last line.
- (86) "Vessel Incident Event (VIE)" is an exception provided to vessel fleets to allow for a limited number of incidents where a vessel operator does not reduce emissions as required during a vessel visit.
- (87) "Vessel operator" means any person who is in direct control of the vessel. For the purpose of this definition, the person in "direct control" is the person who decides where a vessel is to call and is considered a responsible party. The party in direct control of the vessel may be a third-party hired to carry cargo or passengers for the person under a charter agreement to operate the vessel. Direct control does not include the vessel master or any other member of the vessel crew, unless the vessel master or crew member is also a responsible party.
- (88) "Vessel owner" means any party with an ownership interest in the vessel. The owner may be an individual or multiple parties.
- (89) "Vessel type" means a categorization of ocean-going vessels distinguished by the main cargo the vessel carries into the following types: bulk/general cargo, container, passenger, refrigerated cargo, ro-ro, and tanker vessels.
- (90) "Visible emissions" means any particulate or gaseous matter which can be detected by the human eye.
- (91) "Visit" means the time period from when the vessel is "Ready to Work" to "Pilot on Board". A vessel move from one berth to another berth is considered a new visit at each subsequent berth.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

### **Section 93130.3. Applicability.**

#### **(a) General applicability.**

Except as provided in section 93130.4 Exceptions, this Control Measure applies to:

- (1) any person who owns, operates, charters, or leases any United States or foreign-flag ocean-going vessel that visits a California port, terminal, or berth;
- (2) any person who owns, operates, or leases a port, terminal, or berth located where ocean-going vessels visit; and
- (3) any person who owns, operates, or leases a CAECS for ocean-going vessel auxiliary engines or tanker auxiliary boilers.

All responsible parties may be held jointly and severally liable for violating this Control Measure.

#### **(b) Federal requirements.**

Nothing in this Control Measure shall be construed to amend, repeal, modify, or change any applicable federal laws or regulations, including any United States Coast Guard regulations or requirements. Nothing in this Control Measure shall be construed to require anyone to take any action prohibited by the United States Constitution or the California Constitution. Any person subject to this Control Measure shall ensure compliance with both federal regulations (including any United States Coast Guard regulations) and the requirements of this Control Measure, including but not limited to, where applicable, obtaining any necessary approvals, exceptions, or orders from the United States Coast Guard. To the extent any requirements in this Control Measure conflict with any applicable federal regulation, the requirements of the federal regulation shall prevail.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

### **Section 93130.4. Exceptions.**

The requirements of this Control Measure do not apply to:

#### **(a) Non-stop voyages.**

- (1) Ocean-going vessel voyages that do not stop at a California port, terminal, or berth including:

- (A) Stopping and anchoring required by the United States Coast Guard;
  - (B) Stopping necessary due to force majeure or distress as defined in the "Responsibility of States for Internationally Wrongful Acts (2001)", which is incorporated herein by reference; or
  - (C) A stop made solely to render assistance to persons, vessel, or aircraft in danger or distress.
- (2) The following voyages are considered a "stop" and do not qualify for the exemption:
- (A) Innocent passage of an ocean-going vessel that engages in any of the prejudicial activities specified in United Nations Convention on the Law of the Seas 1982, Article 19, subpart 2 as it read on November 16, 1994; or
  - (B) The passage of vessel(s) that are otherwise scheduled or intended to call at a port or terminal facility for any reasons other than the three enumerated reasons listed in subsection (a)(1).
- (b) Government and military vessels.

The requirements of this Control Measure do not apply to government or military vessels. However, government or military vessels are encouraged to act in a manner consistent, as far as is reasonable and practicable, with this section.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

**Section 93130.5. CARB Approved Emission Control Strategy.**

- (a) Executive Order requirement.

No person may operate an emissions control strategy, other than shore power, for compliance with this Control Measure unless that person receives approval by CARB through an Executive Order. The Executive Order shall provide compliance instructions for each emission control strategy and include requirements that each responsible party must follow in order to use that strategy.

- (b) Requirement to reduce emissions.

The emission control strategy must reduce emissions for vessel visits, unless:

- (1) The visit is subject to an exception in sections 93130.4, 93130.8, or 93130.10 of this Control Measure; or
  - (2) The person uses a TIE or a VIE for the visit as provided in section 93130.11 of this Control Measure; or
  - (3) The person pays the remediation fund payments for the visit or portion of a visit as provided in section 93130.15 of this Control Measure.
  - (4) The person uses a CARB approved innovative concept to reduce emissions as provided in section 93130.17 of this Control Measure.
- (c) Shore power.

Shore power is a CAECS. If distributed generation is used to supply shore power, the electricity generated must meet the following emissions standards:

- (1) NO<sub>x</sub> emissions no greater than 0.03 g/kW-hr;
  - (2) PM emissions equivalent to the combustion of natural gas with a fuel sulfur content of no more than 1 grain per 100 standard cubic foot;
  - (3) Distributed generation GHG emissions must be grid-neutral; and
  - (4) Ammonia emissions no greater than five ppm<sub>dv</sub>, if selective catalytic reduction (SCR) is used.
- (d) Requirements for CARB approval of an emission control strategy.
- (1) Emission reductions.  
To receive CARB approval, a person must demonstrate that the emission controls strategy achieves emission rates less than 2.8 g/kW-hr for NO<sub>x</sub>, 0.03 g/kW-hr for PM 2.5, and 0.1 g/kW-hr for ROG for auxiliary engines. Additionally, for strategies approved after 2020, GHG emissions from the strategy must be grid-neutral using the grid emission rate for the year that the technology is granted an Executive Order. Default emission rates of auxiliary engines on ocean-going vessels are 13.8 g/kW-hr for NO<sub>x</sub>, 0.17 g/kW-hr for PM 2.5, and 0.52 g/kW-hr for ROG.
  - (2) Tanker vessels.  
For tanker vessels with steam driven pumps, unless the tanker is using shore power to reduce emissions from auxiliary engines, a person must demonstrate that the CAECS achieves emission rates less than 0.4 g/kW-hr for NO<sub>x</sub>, 0.03 g/kW-hr for PM 2.5, and 0.02 g/kW-hr for ROG for tanker auxiliary boilers. Default emission rates of tanker auxiliary boilers on ocean-going vessels are 2.0 g/kW-hr for NO<sub>x</sub>, 0.17 g/kW-hr for PM 2.5, and 0.11 g/kW-hr for ROG.
  - (3) Already approved strategies.

Where CARB has already issued an Executive Order for strategies under California Code of Regulations, title 17, section 93118 (e)(4), these are approved as a CAECS. These strategies can operate under their Executive Order until 2025 before a person needs to apply for an extension in section 93130.5 (i)(1) of this Control Measure and demonstrate the strategies ability to meet all the requirements of this section including being grid-neutral.

(4) SCR strategy.

Emission control strategy utilizing SCR shall have ammonia slip no greater than five ppm<sub>dv</sub>, and shall continuously test ammonia slip and NO<sub>x</sub> with a continuous emission monitor.

(5) Warranty.

The applicant must provide a warranty that meets the following:

- (A) The manufacturer of each emission control strategy shall warrant for 10 years when a unit is purchased that the strategy is:
  - i. Designed, built, and equipped to conform, at the time of sale, with this Control Measure; and
  - ii. Free from defects in materials and workmanship which cause the failure of a warranted part to no longer be identical in all material respects to that part as described in the manufacturer's application for certification.
- (B) The applicant of the emission control strategy system shall provide the end user with maintenance practices set forth by the manufacturer.

(6) When a person sells or leases a unit, the person must conduct in-use compliance testing of the strategy to demonstrate that the expected percentage of emissions reductions is being achieved. The person must report the results to the Executive Officer within 30 calendar days. If testing shows the unit does not meet the emission requirements set forth in section 93130.5 (d)(1) the unit cannot be used to satisfy the emission requirements of this Control Measure.

(e) Application process.

- (1) Before submitting an application requesting approval from CARB for an emission control strategy, an applicant shall submit a test plan to the Executive Officer for conducting the emissions reduction testing, durability testing, and a timeline for testing.
- (2) The applicant shall submit an application that includes all source test data only after the applicant receives CARB approval for the test plan.

- (3) If the Executive Officer approves the application, the applicant's strategy will be considered a CAECS and shall become a compliance option for the type(s) of vessel visits for which the emission control strategy is approved, when used in a manner that is consistent in accordance with all the conditions of the approval.
- (f) Test plan requirements.
- (1) A test plan shall include:
    - (A) The contact person(s), phone numbers, names, and addresses of person(s) submitting the test plan.
    - (B) Description of the emission control strategy's principles of operation. A schematic depiction of the components and operation must be included. It is the responsibility of the applicant to demonstrate that the qualifying strategy relies on sound principles of science and engineering to achieve emission reductions.
    - (C) Description of testing to be conducted to demonstrate emission reductions and durability.
    - (D) Timeline for all emissions reduction testing and durability testing, including an estimate for the testing's duration and the number of vessel visits needed to complete proposed testing.

(2) Durability.

The applicant of an emission control strategy shall demonstrate, to the satisfaction of the Executive Officer, the durability of the applicant's emission control strategy through a field demonstration. If the applicant has demonstrated the durability of the equipment (identical in design and components) in a prior verification or has demonstrated durability through field experience, the applicant may request that the Executive Officer accept the previous demonstration in fulfillment of this requirement. In evaluating such a request, the Executive Officer may consider all relevant information including, but not limited to, the similarity of baseline emissions and application duty cycles, the relationship between the emission control group used in previous testing and the current emission control group, the number of engines tested, evidence of successful operation and user acceptance, and published reports.

(3) Test plan disapproval.

If, after reviewing the test plan, the Executive Officer determines that the applicant has not made a satisfactory demonstration that its strategy relies on sound principles of science and engineering to achieve emission reductions at the rates required for certification or if the test plan is

incomplete, the Executive Officer shall notify the applicant of the disapproval in writing within 30 calendar days of receiving the test plan. The applicant may choose to withdraw from the application process or submit additional materials and clarifications.

(4) Test plan approval.

Within 45 calendar days after determining the test plan is satisfactory, the Executive Officer shall issue a test plan approval letter to the applicant.

(g) Source testing.

A person shall use source testing to demonstrate that a proposed emission control strategy achieves the performance standards in section 93130.5 (d) of this Control Measure. Testing must be done by third party source testers specified in the test plan. Alternative test methods or emission verifications may be used when specified in the test plan upon written approval from the Executive Officer. The following requirements shall apply to source testing conducted under this Control Measure:

- (1) NO<sub>x</sub>, N<sub>2</sub>O, CO<sub>2</sub>, CO, CH<sub>4</sub>, and Diesel PM or PM<sub>10</sub>, shall be measured using ISO 8178 Test Procedures: ISO 8178-1: August 15, 1996(E) ("ISO 8178 Part 1"); ISO 8178-2: August 15, 1996(E) ("ISO 8178 Part 2"); and ISO 8178-4: August 15, 1996(E) ("ISO 8178 Part 4" August 15, 1996), respectively, all of which are incorporated herein by reference;
- (2) PM 2.5 shall be calculated using the factor of weight fraction of PM 2.5/TPM based on CARB's speciation data for PM size fractions ("PMPROF REF (Excel) - Reference number for PM profiles," July 8, 2019, incorporated herein by reference). For MGO, the factor is 0.92;
- (3) ROG shall be calculated as a fraction of the TOG, set forth in CARB's Off-Road Diesel HC to Rog/Tog Ratio ("FRAC (Excel) - Fraction data for source categories," February 21, 2019, incorporated herein by reference). For MGO, the factor is 0.856 for internal combustion engines and 0.946 for boilers. TOG shall be measured using Method 25A (40 CFR Pt. 60, App. A-7, Method 25A, December 23, 1971), which is incorporated herein by reference;
- (4) CO<sub>2</sub>E for a control system shall be calculated as follows  $\text{lbs CO}_2\text{E} = (\text{lbs CO}_2 + 25 * \text{lbs CH}_4 + 298 * \text{lbs N}_2\text{O})$ . CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O shall be measured before and after the control strategy, and include any uncontrolled auxiliary sources for the control strategy using the test methods specified in section 93130.5(g)(1) and 93130.5(g)(3) in this Control Measure. Strategies that use a fuel with a CARB Low Carbon Fuel Standard certified pathway may apply a reduction to CO<sub>2</sub>E by

the factor of the carbon intensity of the fuel to the carbon intensity of the standard fuel;

- (5) Grid-neutral shall be determined by calculating the ratio of the CO<sub>2</sub>E to the measured MWh of the control system which value must be lower than the state output emission rate;
  - (6) Ammonia slip shall be measured using the Bay Area Air Quality Management District Source Test Procedure ST-1B, Ammonia Integrated Sampling, dated January 20, 1982, which is incorporated herein by reference, or other equivalent CARB or district approved test method(s);
  - (7) The sulfur content of fuels shall be determined pursuant to International Standard ISO 8754 (as adopted on July 15, 2003), which is incorporated herein by reference;
  - (8) Exhaust Flow Rate shall be measured using CARB Method 100, Procedures for Continuous Gaseous Emission Stack Sampling (as amended July 28, 1997), which is incorporated herein by reference; and
  - (9) Engine Work shall be determined by measuring the total power output in MWh of the control strategy's generators electrical output during the test periods.
- (h) Application submittals to CARB.
- (1) All applications, correspondence, and reports relating to source testing shall be submitted to CARB addressed to:  
CHIEF, TRANSPORTATION AND TOXICS DIVISION  
CALIFORNIA AIR RESOURCES BOARD  
1001 I STREET  
SACRAMENTO, CA 95814
  - (2) Verbal submissions do not constitute acceptable application formats.
  - (3) Supporting data in electronic format may be accepted as part of the application at the discretion of the Executive Officer.
  - (4) Applications shall follow the format and include the contents described in CARB's Recommended Emissions Testing Guidelines for Ocean-Going Vessels (dated June 20, 2012), which is incorporated herein by reference.
  - (5) If available, CARB may allow electronic or e-mail submittal with instructions on the CARB website.
  - (6) The Executive Officer shall determine whether the application is complete. If incomplete, the Executive Officer will notify the

applicant within 30 calendar days requesting additional information required to complete the application.

- (i) CARB approval of the control strategy.

Within 90 calendar days after an application has been deemed complete, the Executive Officer shall act to approve or disapprove the application. The Executive Officer shall notify the applicant of the decision in writing and identify any terms and conditions that are necessary for any party to use the CAECS. The approval of an emission control strategy is valid for five years, unless it is revoked by CARB as set forth in section 93130.5 (I).

(1) Extensions of CAECS.

If the applicant wishes to extend an approval of a CAECS, it must apply to do so at least six months prior to the end date of the approval to ensure the Executive Order does not lapse. The applicant may apply for an extension by submitting an extension application to the Executive Officer asserting that the strategy has not changed and is still effective, following to the requirements specified in subsection (d) above.

(2) Modifications to a CAECS.

- (A) Proposed modifications to the design or operation of a CAECS that have any potential to affect the emissions control effectiveness or operational performance must be reviewed and approved by the Executive Officer before they are implemented.
- (B) Failure to obtain Executive Officer approval before modifying the design or operation of a CAECS is a violation, and may also be grounds for revocation of CARB's approval, as set forth in subsection 93130.5 (I).
- (C) The applicant shall describe in detail the design modification along with an explanation of how the modification will change the operation and performance of the strategy. The applicant shall submit additional test data, durability data, engineering justification and analysis, or any other information deemed necessary by the Executive Officer to address the differences between the modified and original designs, and to ensure that the strategy's reductions are maintained.
- (D) A modification includes, but is not limited to:
  - i. Any change of materials used in, or specifications of, the control strategy;
  - ii. Any change to the components, component design, composition, materials, or reagent usage;

- iii. Any change to the sensors, part sizes, or sizing methodology;
- iv. Any change to the monitoring and notification system control; logic, algorithms, operating parameters; or
- v. Any proposed change to a portion of the approval.

(E) The Executive Officer will reissue the approval with updates to reflect the modifications if he or she determines that the modifications have no material effect on the control strategy, or if the modifications are found to affect the control strategy but the strategy's emission reductions still meet the requirements in section 93130.5(d) of this Control Measure.

(j) Review of CAECS.

- (1) At a minimum, emission control technologies shall be tested annually to demonstrate that the expected percentage of emissions reductions are being achieved.
- (2) The applicant shall provide the results of such testing to the Executive Officer by December 31, annually.
- (3) The Executive Officer may modify the testing frequency as he or she deems appropriate.
- (4) The Executive Officer may request that the owner or operator of a CAECS conduct periodic emission source testing or other types of monitoring to verify the proper operation of alternative control technologies or distributed generation equipment, or to verify the emission rate of an auxiliary engine.

(k) Records retention.

Records made pursuant to Section 93130.5 shall be kept for a minimum of five years. This information shall be sent to the Executive Officer within 10 calendar days of a request from CARB staff.

(l) Revoking a CAECS.

If a CAECS operator fails to meet any requirements of Section 93130.5 or 93130.12 of this Control Measure or any conditions of the CAECS approval, the Executive Officer may revoke its approval of the emission control strategy. To resume compliance using the strategy, the operator must re-submit an application and receive a new approval.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510,

38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

**Section 93130.6. Opacity Requirements.**

- (a) No person shall discharge or cause the discharge from any ocean-going vessel at berth and at anchor, into the atmosphere, any visible emissions of any air pollutant, for a period of periods aggregating three minutes in any one hour from any operation on the vessel that is:
  - (1) As dark as the Ringelmann 2, as published by the United States Bureau of Mines (May 1967), which is incorporated by reference; or
  - (2) Of such opacity as to obscure an observer's view to a degree equal to or greater than the Ringelmann 2.
- (b) CARB will use the following methodology to analyze the readings and determine compliance. Alternative test methods may be used upon written approval from the Executive Officer.

The California time aggregate method and the United States Environmental Protection Agency Opacity Test Method 9 (40 CFR Pt. 60, App. A-4, December 23, 1971), which is incorporated herein by reference.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510, 41511, and 41701, Health and Safety Code.

**Section 93130.7. Vessel Operator Requirements.**

Vessel operators that visit a berth or terminal in California shall meet the following requirements. Any failure to perform any specific items in this section shall constitute a separate violation for each calendar day that the failure occurs.

- (a) Shore power requirements for at berth emission reductions.

Vessel operators with shore power vessels shall plug in to shore power on each and every visit to a terminal where the port or terminal has commissioned the vessel's shore power equipment or the port or terminal has deemed the vessel to be compatible based on the vessel's previous commissioning to another berth.

- (b) Requirements for vessel auxiliary engines.

Vessel operators shall reduce auxiliary engine emissions to the performance standards set forth in section 93130.5(d)(1) of this Control Measure through

use of a CAECS during each visit to a terminal by the date specified for each vessel type in this section and listed in Table 1, unless the visit qualifies for an exception identified in sections 93130.4, 93130.8, or 93130.10 of this Control Measure. A summary of responsibilities is provided in section 93130.18 of this Control Measure.

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

- (c) Requirements for tanker auxiliary boilers on tanker vessels with steam driven product pumps.

Vessel operators shall reduce boiler emissions to the performance standards set forth in section 93130.5(d)(2) of this Control Measure through use of a CAECS during each visit to a terminal by the date specified for each vessel type in this section and listed in Table 2, unless the visit qualifies for an exception identified in sections 93130.4, 93130.8, or 93130.10 of this Control Measure. A summary of responsibilities is provided in section 93130.18 of this Control Measure.

<b>Table 2: Compliance Start Dates for Tanker Vessels with Steam Driven Product Pumps</b>	
<b>January 1, 2025</b>	Tanker vessels with steam driven product pumps that visit the ports of Los Angeles or Long Beach
<b>January 1, 2027</b>	All remaining tanker vessels with steam driven product pumps

- (d) Visits by vessels with on-board control strategies.

If the CAECS is operated solely on the vessel, vessel operators shall confirm in writing with the terminal operator that the equipment is operational and will be used, prior to the vessel's arrival at a California berth.

- (e) Vessel compliance checklists.

Vessel operators shall complete all items in the checklist to ensure compliance under the Control Measure:

- (1) At least seven calendar days before arrival, the vessel operator shall communicate in writing with the terminal operator and operator of the CAECS to coordinate the use of a CAECS, and shall do all of the following:
  - (A) Request use of a CAECS; and
  - (B) Supply the terminal operator and the operator of the CAECS with information about the compatibility of the vessel with the intended CAECS.
- (2) Ensure the vessel is commissioned as required by the terminal operator or port, where applicable.
- (3) Use shore power or another CAECS during the vessel visit.
  - (A) Begin controlling emissions with shore power or another CAECS within two hours after "Ready to Work".
  - (B) Cease controlling emissions with shore power or another CAECS no sooner than one hour before "Pilot on Board."
- (4) Beginning on January 1, 2023, and thereafter, all vessel operators must report the following visit information to CARB electronically within 30 calendar days of each vessel's departure, using local time for all dates and times:
  - (A) Fleet name;
  - (B) Vessel name;
  - (C) Vessel IMO number;
  - (D) Vessel type;
  - (E) IMO NOx tier;
  - (F) Vessel operator contact information, including name, address, email address, and telephone number;
  - (G) Port, terminal, and berth visited;
  - (H) Vessel arrival time and vessel departure time;
  - (I) Vessel shift to another berth (must be reported as a separate visit), where applicable;
  - (J) Type of CAECS used, where applicable;
  - (K) Date and time when vessel declared as "Ready to Work";
  - (L) Date and time when a CAECS begins reducing emissions and date and time when a CAECS stops reducing emissions, where applicable;
  - (M) Type of fuel used in auxiliary engine(s) and auxiliary boiler(s);

- (N) Sulfur content of fuel used in auxiliary engine(s) and auxiliary boiler(s), where applicable;
- (O) Amount of fuel used in auxiliary engine(s) and boiler(s), during vessel visit, where applicable;
- (P) Date and time pilot on-board in preparation for departure;
- (Q) Information specified in the approved compliance strategy's Executive Order compliance instructions;
- (R) Information if a vessel uses an exception, including the type of exception, a detailed description, including dates and times, and any relevant correspondence (e.g. emails) documenting the visit exception;
- (S) Report if a request for the use of the remediation fund, including detailed description of the applicable circumstance specified in section 93130.15 of this Control Measure, the start and end times during which applicable specified circumstance took place, and the tier rating of the auxiliary engine;
- (T) Report if a vessel operator or terminal operator uses a TIE or VIE for the visit including the contact information of the responsible official who authorized the use of the TIE or VIE; and
- (U) Report if a CARB approved innovative concept is used to reduce emissions for the visit in compliance with this Control Measure as required in the innovative concept's Executive Order.

(f) Submissions.

The vessel operator shall submit information to CARB according to section 93130.19 of this Control Measure.

(g) Records retention.

Records made pursuant to Section 93130.7 shall be kept for a minimum of five years. This information shall be sent to the Executive Officer within 10 calendar days of a request from CARB staff.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

### **Section 93130.8. Vessel Visit Exceptions.**

Vessel operators are exempt from the operational requirements in section 93130.7 of this Control Measure if any of the following occurs.

(a) Vessel safety and emergency event.

The emission reduction requirements of section 93130.7 and section 93130.9 of this Control Measure do not apply during a portion of the visit that is defined as a safety and emergency event. All safety and emergency events are subject to review and audit by the Executive Officer. This exception applies if approved and only as long as the event occurs and only to the extent necessary to secure the safety of the vessel, its crew, its cargo, or its passengers and provided that the master:

- (1) Takes all reasonable precautions after the conditions necessitating the exception have ended to avoid or minimize repeated claims of exception under this subsection; and
- (2) Includes with the reporting requirement of section 93130.7(e)(4) of this Control Measure all documentation necessary to establish the conditions necessitating the safety and emergency event exception and the date(s), local time, and location. All required documentation must be in the English language.

(b) Bulk and general cargo vessels.

Bulk and general cargo vessels are not subject to the vessel auxiliary engine requirements in sections 93130.7(b) of this Control Measure, and are only required to report their vessel visit activity under section 93130.7(e)(4) of this Control Measure starting January 1, 2023.

(c) Vessel commissioning.

The first vessel commissioning visit made by a vessel to a terminal may be an exception as long as the vessel was able to successfully connect to shore power during that visit. Documentation of a successful vessel commissioning must be submitted with the vessel visit reporting requirements of section 93130.7(e)(4) of this Control Measure. Vessel commissioning visits may qualify for exception if approved by CARB in writing where the vessel operator demonstrates:

- (1) The commissioning process could not be accomplished in a single visit; or
- (2) The terminal requires that the vessel be recommissioned.

(d) Research.

Vessel visits that participate in research may be an exception provided that the vessel operator:

- (1) Receives a CARB approved test plan for the research prior to the vessel's arrival;
- (2) Participates in testing in accordance with the approved test plan;
- (3) Keeps a copy of the approved test plan on the vessel at all times;
- (4) Provides a copy of the approved test plan to CARB staff upon request; and
- (5) Reports all information including the use of the research exception pursuant to section 93130.7(e)(4) of this Control Measure.

(e) Vessels visiting a low activity terminal.

- (1) The specific requirements for vessel categories in section 93130.7 and section 93130.9 of this Control Measure do not apply to vessel visits to low activity terminals as specified in section 93130.10(a) of this Control Measure.
- (2) All vessel operators are required to report their vessel visit activity under section 93130.7(e)(4) of this Control Measure starting on January 1, 2023.

(f) Vessel incident event (VIE) and terminal incident event (TIE).

The at berth emission reduction requirements of section 93130.7 and section 93130.9 of this Control Measure do not apply during a visit if the vessel fleet uses a VIE or the terminal operator uses a TIE specified in section 93130.11 of this Control Measure. Vessel operators shall report vessel visit information under section 93130.7 (e)(4) of this Control Measure.

(g) Remediation.

The at berth emission reduction requirements of section 93130.7 and section 93130.9 of this Control Measure do not apply during the portion of a visit that qualifies and uses the remediation fund option in section 93130.15 of this Control Measure. Vessel operators shall report vessel visit information under section 93130.7(e)(4) of this Control Measure.

(h) Innovative concept.

The at berth emission reduction requirements of section 93130.7 and section 93130.9 of this Control Measure do not apply during a visit where the vessel or terminal operator elects to comply using an approved innovative concept in section 93130.17 of this Control Measure. Terminal operators shall report vessel visit information under section 93130.9(e)(4) of this Control Measure.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

### **Section 93130.9. Terminal Operator Requirements.**

Terminal operators that receive ocean-going vessels in California shall meet the following requirements. Any failure to perform any specific items in this section shall constitute a separate violation for each calendar day that the failure occurs.

- (a) Shore power requirements for at berth emission reductions.
  - (1) Terminal operators or ports with berths equipped to receive shore power vessels must connect these vessels to shore power when visited by a commissioned shore power vessel.
  - (2) The port or terminal operator is responsible for commissioning vessels equipped with shore power that is installed on the side of the vessel facing the wharf when berthed.
  - (3) If the commissioned shore power vessel is berthed in a way that prevents it from connecting to shore power, the terminal may use a TIE or must provide an alternative CAECS compatible with the vessel.
- (b) Visits to berths at terminals without shore power.

Terminals that receive a vessel at a berth without shore power are responsible for arranging a CAECS for each visit by vessels with requirements for auxiliary engines or tanker auxiliary boilers in section 93130.7 (b) or 93130.7 (c) of this Control Measure. If neither the vessel nor the terminal has shore power, then it is the shared responsibility of both parties to arrange a CAECS for this visit.

- (c) Visits by vessels with on-board control strategies.

If the CAECS is operated solely on the vessel, terminal operators are required to confirm with vessel operators that the equipment is operational and will be used, prior to the vessel's arrival at a California berth.

- (d) Terminal operator compliance checklist.

Terminal operators shall complete the following items in this checklist to ensure compliance under the Control Measure:

- (1) At least seven calendar days before arrival, the terminal operator shall communicate with the vessel operator and operator of the CAECS in writing to coordinate the use of a CAECS. If the vessel

operator is using a CAECS, the terminal operator shall supply the vessel operator with information about the terminal's compatibility with the intended CAECS.

- (2) Ensure shore power equipped vessels are commissioned for shore power at the terminal they are visiting or notify vessel operator if commissioning is required.
- (3) Position vessel appropriately to enable use of shore power or the CAECS.
- (4) Use shore power or another CAECS during the vessel visit.
  - (A) When using shore power as the control strategy, record power meter reading at the time of shore power connection;
  - (B) Begin controlling emissions with shore power or another CAECS within two hours after "Ready to Work";
  - (C) Cease controlling emissions with shore power or another CAECS no sooner than one hour before "Pilot on Board"; and
  - (D) When using shore power as the control strategy, record power meter reading immediately after disconnecting from shore power.
- (5) Beginning on January 1, 2023, all terminal operators must report the following vessel visit information within 30 calendar days of each vessel's departure, using local time for all dates and times:
  - (A) Vessel name;
  - (B) Vessel IMO number;
  - (C) Vessel type;
  - (D) IMO NOx tier;
  - (E) Port, terminal and berth visited;
  - (F) Terminal operator contact information, including name, address, email address, and telephone number;
  - (G) Arrival date and time;
  - (H) Departure date and time;
  - (I) CAECS used;
  - (J) If CAECS was provided by the terminal, or terminal and vessel shared arrangement responsibility, start and end date and time of emission control;

- (K) For shore power visits, the terminal must report the power meter readings at the time of shore power connection and immediately after disconnection;
- (L) Information specified in the approved compliance strategy's compliance instructions;
- (M) Information relating to any exception claimed by the terminal during the visit, including the type of exception, a detailed description of the exception and documentation detailing the exception, and any relevant correspondence (e.g. emails) documenting the visit exception;
- (N) Report if a request for use of the remediation fund, including detailed description of the applicable circumstance specified in section 93130.15 of this Control Measure, the start and end times during which the applicable specified circumstance took place, and the tier rating of the vessel's engine;
- (O) Report if a vessel operator or terminal operator uses a TIE or VIE for the visit including the contact information of the responsible official who authorized the use of the TIE or VIE; and .
- (P) Report if a CARB approved innovative concept is used to reduce emissions for the visit in compliance with the Control Measure, as required in the innovative concept's Executive Order.

(e) Submissions.

The terminal operator shall submit information to CARB according to section 93130.19 of this Control Measure.

(f) Construction or repair.

The terminal operator is responsible for providing an alternative CAECS for vessels to reduce emissions if the CAECS for the berth is unavailable due to construction or repair. Terminals also have the option of using a TIE or remediation fund for construction or repair.

(g) Records retention.

Records made pursuant to Section 93130.9 shall be kept for a minimum of five years. This information shall be sent to the Executive Officer within 10 calendar days of a request from CARB staff.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

### **Section 93130.10. Terminal Exceptions.**

The terminal-related requirements of this Control Measure in section 93130.9 are subject to certain exceptions, set forth in this section.

(a) Vessel visits to a low activity terminal.

- (1) The at berth emission reduction requirements of section 93130.7 and section 93130.9 of this Control Measure do not apply during a visit if the vessel visits a low activity terminal.
- (2) For each vessel type listed in section 93130.7(b), a terminal that receives fewer than 20 visits in both 2021 and 2022 is initially considered a low activity terminal for that vessel type.
- (3) A low activity terminal that receives 20 or more visits per year for two consecutive calendar years from a vessel type no longer qualifies for the low activity terminal exception for that vessel type and is required to reduce emissions starting January 1 of the following year.
- (4) All terminal operators shall report vessel visit information under section 93130.9 (d)(5) of this Control Measure starting January 1, 2023.

(b) Bulk and general cargo vessels.

Terminals that receive bulk and general cargo vessels are not required to arrange for CAECs for their visits. Terminals are only required to report the vessel visit information for bulk and general cargo vessels under section 93130.9 (d)(5) of this Control Measure starting January 1, 2023.

(c) Vessel commissioning.

The first vessel commissioning visit made by a vessel to a terminal may be an exception as long as the vessel was able to successfully connect to shore power during that visit. Documentation of a successful vessel commissioning shall be submitted with the vessel visit reporting requirements of section 93130.7(e)(4) of this Control Measure. Vessel commissioning visits may qualify for exception if approved by CARB in writing where the vessel operator demonstrates:

- (1) The commissioning process could not be accomplished in a single visit; or
- (2) The terminal requires that the vessel be recommissioned.

(d) Terminal safety and emergency event.

The at berth emission reduction requirements of section 93130.7 and section 93130.9 of this Control Measure do not apply during a portion of the visit that is defined as a safety and emergency event. All safety and emergency events are subject to review and audit by the Executive Officer. This exception applies if approved and only as long as the event occurs provided that the terminal operator:

- (1) Takes all reasonable precautions after the conditions necessitating the exception have ended to avoid or minimize repeated claims of exception under this subsection; and
- (2) Includes with the reporting requirements of section 93130.9 (d)(5) of this Control Measure all documentation necessary to establish the conditions necessitating the terminal safety exception and the date(s), local time, and location. All required documentation must be in English.

(e) Research.

Vessel visits that participate in research may be excluded from the at berth emission reduction requirements in section 93130.7 and section 93130.9 of this Control Measure. Research visits are subject to the reporting requirements in 93130.9 (d)(5) of this Control Measure. To qualify for a research exception, the following conditions shall apply:

- (1) A research visit to a terminal must have a CARB approved research exception prior to arrival;
- (2) A terminal must confirm and record a visit's research exception status with CARB prior to arrival; and
- (3) Any testing must be conducted in accordance with the approved test plan.

(f) Terminal incident event (TIE) and vessel incident event (VIE).

The at berth emission reduction requirements of section 93130.7 and section 93130.9 of this Control Measure do not apply during a visit if the vessel fleet uses a VIE or the terminal operator uses a TIE specified in section 93130.11 of this Control Measure. Terminal operators shall report vessel visit information under section 93130.9 (d)(5) of this Control Measure.

(g) Remediation.

The at berth emission reduction requirements of section 93130.7 and section 93130.9 of this Control Measure do not apply during the portion of a visit that qualifies and uses the remediation fund option in section 93130.15

of this Control Measure. Terminal operators shall report vessel visit information under section 93130.9 (d)(5) of this Control Measure.

(h) Innovative concept.

The at berth emission reduction requirements of section 93130.7 and section 93130.9 of this Control Measure do not apply during a visit where the vessel or terminal operator elects to comply using an approved innovative concept in section 93130.17 of this Control Measure. Terminal operators shall report vessel visit information under section 93130.9 (d)(5) of this Control Measure.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

**Section 93130.11. Vessel Incident Events (VIE) and Terminal Incident Events (TIE).**

A VIE or a TIE accommodates a limited number of situations where a vessel does not reduce emissions during a visit.

(a) VIEs and TIEs.

- (1) The fleet that is designated in a vessel's visit report will be granted VIEs based on a percentage of fleet vessel visits to a California port between January 1 and December 31 in the previous year, and reported to CARB by January 7, excluding those visits made under an innovative concept in Section 93130.17 of this Control Measure. The terminal operator that is designated in a vessel's visit report will be granted TIEs based on a percentage of vessel visits to the terminal between January 1 and December 31 in the previous year, and reported to CARB by January 7, excluding those visits made under an innovative concept in Section 93130.17 of this Control Measure. In 2023, VIEs and TIEs will be granted by CARB staff by January 1, 2023. Each year after, VIEs and TIEs will be granted by CARB staff on February 1 of that year.
- (2) These percentages are listed in Table 3 in section 93130.11(b) of this Control Measure. The number of VIEs and TIEs granted is rounded to the nearest whole number. Since visit information is not available initially, in 2023, VIEs and TIEs will be determined by the fleet 2021 recordkeeping requirements in California Code of Regulations, title 17, section 93118.3(g)(1)(B) and Wharfinger data in section 93118.3(g)(3)(A) of the previous at berth regulation. Fleet operators that did not have a compliance obligation under California Code of

Regulations, title 17 section 93118.3 may instead request TIEs and VIEs for 2023 per section 93130.11(c) of this Control Measure.

- (3) The fleet operator will be able to assign each received VIE to a visit made by a vessel in the fleet. The terminal operator will be able to assign each received TIE to a visit made by a vessel to the terminal.

(b) Table of VIEs and TIEs rates.

<b>Table 3: VIEs and TIEs Rates by Vessel Type per Year</b>							
		<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028+</b>
<b>TIEs</b>	<b>All Terminals</b>	15%	15%	5%	5%	5%	5%
<b>VIEs</b>	<b>Container/ Reefer</b>	5%	5%	5%	5%	5%	5%
	<b>Passenger</b>	5%	5%	5%	5%	5%	5%
	<b>Ro-ro</b>			5%	5%	5%	5%
	<b>LA/LB Tankers</b>			5%	5%	5%	5%
	<b>Other Tankers</b>					5%	5%

(c) Request for TIEs and VIEs.

Instead of receiving TIEs and VIEs through the process set forth in Section 93130.11 (a)(1) of this Control Measure, a fleet representative or terminal operator may request TIEs or VIEs to accommodate a new fleet or terminal, or when an anticipated growth in visits is expected for an existing fleet or terminal that is not reflected in the year’s visits. This request shall be made in writing to CARB by December 1 for consideration in the following year. CARB will notify the requestor about CARB’s approval or denial of the request in writing by February 1. When a request for TIEs and VIEs is made, the TIEs and VIEs shall be based on a percentage of the upcoming year’s anticipated visits instead of the current year’s visits. When CARB staff reviews the actual activity by the fleet or to a terminal that requested TIEs or VIEs, the number of TIEs or VIEs used must be less than or equal to the VIE and TIE rate multiplied by the fleet or terminal activity. Any visits not covered by a VIE or TIE will be noncompliant.

(d) Expiring VIEs and TIEs.

VIEs and TIEs expire on January 31 of the year after they are granted. VIEs can only be used at the port for which they are granted and by the fleet for which they are granted, and TIEs can only be used at the terminal for which they are granted.

(e) Retiring VIEs and TIEs.

VIEs and TIEs are limited in number and apply to incidents listed in section 93130.18 of this Control Measure. Fleet operators and terminal operators must report the use of a VIE or TIE with the vessel visit report in sections 93130.7(e) and 93130.9(d) of this Control Measure. VIEs and TIEs cannot be traded with other fleets, terminals, or any other entity.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

**Section 93130.12. CAECS Operator Requirements.**

CAECS operators shall fulfill the following responsibilities:

- (a) Subcontractor services and agreements.
  - (1) Maintain a list of all subcontracted service providers and the services performed by each, maintaining copies of all agreements with service providers.
  - (2) Provide copies to CARB upon request of any agreement with service providers.
- (b) CAECS checklist.

CAECS operators shall complete all of the following items in this checklist for each vessel visit to ensure compliance under the Control Measure. Any failure to perform any specific items in this section shall constitute a separate violation for each calendar day that the failure occurs.

- (1) Notification. At least seven calendar days before a vessel's arrival, the operator of the CAECS must coordinate in writing with the vessel operator and terminal operator for the use of the strategy and supply the vessel operator with information about the compatibility with the vessel and terminal of the CAECS.
- (2) Operational. During each visit, the operator of the CAECS shall:
  - (A) Begin controlling emissions within two hours of vessel "Ready to Work";

- (B) Record inlet and outlet levels of emissions during the visit; and
  - (C) Continue controlling emissions until at least one hour before "Pilot on Board".
  - (D) Ensure vessels are operating on CARB compliant distillate marine fuel.
- (3) Reporting. Beginning on January 1, 2023, and thereafter, the operator of the CAECS shall report the following information regarding each vessel visit within 30 calendar days of vessel departure, using local time for all dates and times:
- (A) Vessel name;
  - (B) Vessel IMO number;
  - (C) Vessel type;
  - (D) IMO NOx tier;
  - (E) Port, terminal, and berth visited;
  - (F) Vessel operator contact information, including name, address, email address, and telephone number;
  - (G) Terminal operator contact information, including name, address, email address, and telephone number;
  - (H) Emission control strategy operator contact information, including name, address, email address, and telephone number;
  - (I) Arrival date and time of the CAECS, if applicable;
  - (J) Departure date and time of the CAECS, if applicable;
  - (K) Dates and times when a CAECS starts controlling emissions and finishes controlling emissions; and
  - (L) Vessel emissions while control strategy operated for the following categories:
    - i. NOx emissions in g/kW hr;
    - ii. PM 2.5 emissions in g/kW hr; and
    - iii. ROG emissions in g/kW hr.
- (c) Malfunction reporting and recordkeeping.

The operator of the CAECS shall report within 24 hours to CARB by electronic means, the following information regarding any malfunction that is expected to create emissions in excess of any applicable emissions limitation for a period greater than one hour. If electronic notification is not

immediately possible, notification at the beginning of the next working day is acceptable.

- (1) The notification must include the following information:
  - (A) Identification of the equipment causing the emissions in excess of any applicable emissions limitation;
  - (B) Date and time excess emissions began; and
  - (C) Description of the corrective actions taken or expected to be taken to remedy the malfunction and to limit the excess emissions.
- (2) The operator of the CAECS shall retain for five years all records pertaining to the malfunction including the following information:
  - (A) Magnitude, source, and cause of the excess emissions;
  - (B) Information sufficient to demonstrate to CARB's Executive Officer's reasonable satisfaction, that the malfunction was not caused in any way by poor maintenance, negligent operation, or any other reasonably preventable upset condition or equipment breakdown;
  - (C) Readings from any continuous emission monitor used in the emission control strategy; and
  - (D) If excess emissions exceed three working days then the operator shall remediate all excess emissions according to section 93130.15 or cease operation of the system until repairs can be made.

(d) Corrective action report.

Within seven calendar days after a malfunction has been corrected, the operator of the CAECS shall submit a written report to CARB that includes:

- (1) A statement that the malfunction has been corrected, the date of correction, and proof of compliance with all applicable CARB approval requirements;
- (2) The specific cause of the malfunction;
- (3) A description of any preventive measures taken and/or to be taken; and
- (4) A statement affirming under penalty of perjury that the malfunction was not caused entirely or in part by poor maintenance, careless operation, poor design, or any other preventable condition or preventable equipment breakdown.

(e) Records retention.

Records made pursuant to Section 93130.12 shall be kept for a minimum of five years. This information shall be sent to the Executive Officer within 10 calendar days of a request from CARB staff.

(f) Submissions.

The CAECS operator shall submit information to CARB according to section 93130.19.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

**Section 93130.13. Port Requirements.**

(a) Port infrastructure.

Ports with terminals not excluded under the thresholds set forth in section 93130.10(a) Terminal Exceptions of this Control Measure, shall provide equipment or necessary infrastructure that is outside of terminal operators' contractual ability to provide and which will enable a terminal to comply with this Control Measure including but not limited to necessary underground infrastructure, conduit, cabling, ducting, and shore power vaults.

(b) Shared responsibility with terminals.

Ports are responsible for vessel emissions reductions at a terminal at the port to the extent specified in the division of responsibilities in the port's plan as set forth in section 93130.14 (a)(3)(G) of this Control Measure.

(c) Cessation of obligation.

If a terminal operator and/or vessel operator elects to purchase, install, and use CARB approved emissions control equipment that does not need port assistance or infrastructure to operate in compliance with this Control Measure, then the port has no additional responsibility for that equipment.

(d) Wharfinger data.

All operators of a public or private California port or independent marine terminal shall provide Wharfinger data to the Executive Office of CARB annually by January 31 of the following calendar year, regardless of visit activity. At a minimum, the Wharfinger information shall include for each visit to the port:

- (1) Name of the vessel;

- (2) Vessel type;
  - (3) Name, address, email and telephone number for Company operating the vessel;
  - (4) IMO number for each vessel;
  - (5) Berth used by the vessel; and
  - (6) Date(s) and time the vessel was initially tied to the berth and subsequently released from the berth.
- (e) Submissions.

Port reports and Wharfinger information shall be submitted to CARB according to section 93130.19 of this Control Measure.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

#### **Section 93130.14. Terminal and Port Plans and Interim Evaluation.**

- (a) Terminal plans.

- (1) Terminal plan requirements.

Beginning in 2021, terminal operators shall submit a terminal plan that discusses how the terminal will comply with the requirements for ocean-going vessels visiting each berth. For vessel categories with compliance dates after 2023, the terminal operator shall submit plans with the most likely control strategy and submit a revised plan the year before the compliance date reflecting any changes to the terminal operator's strategy. As an alternative, Ports may submit plans for their terminal operators.

- (2) Terminal plan submission dates.

Terminal operators shall submit terminal plans to CARB by the following dates:

- (A) Container, refrigerated cargo, passenger terminals: December 1, 2021;
- (B) Ro-ro terminals: December 1, 2021;
- (C) LA/LB tanker terminals: December 1, 2021;
- (D) All other tanker terminals: December 1, 2021;
- (E) Low-use terminals that exceed the terminal threshold shall submit a terminal plan by July 1 the following year; and

- (F) Ro-ro and tanker terminals shall revise and resubmit terminal plans on the following schedule, which must reflect any changes to the terminal since the initial plan:
  - i. Ro-ro terminals: February 1, 2024;
  - ii. LA/LB tanker terminals: February 1, 2024; and
  - iii. All other tanker terminals: February 1, 2026.

(3) Terminal plan information.

The terminal plan shall include discussion of necessary infrastructure modifications needed to reduce emissions from ocean-going vessels at a terminal, such that the terminal is capable of meeting compliance requirements by the implementation dates listed in Table 1. For each strategy implemented at a terminal, the terminal plan shall include:

- (A) Identification and description of all necessary equipment, including whether it will be located on the vessel, wharf, shore, or elsewhere;
- (B) Number of vessels expected to visit the terminal using the strategy;
- (C) List of each berth with geographic boundary coordinates;
- (D) Identify berth(s) where equipment will be used;
- (E) Terminal/port specific berthing restrictions;
- (F) Schedule for installing equipment;
- (G) Division of responsibilities between the terminal operator and the port, including contractual limitations applicable to the terminal, relevant to enacting the infrastructure required by each terminal's plan; and
- (H) A terminal operator claiming that a physical and/or operational constraint will delay its ability to implement its preferred CARB approved control strategy to achieve emission reductions from vessels at berth according to the requirements of section 93130 et seq, must also include with its terminal plan a technical feasibility study evaluating if there are any other emission control options that could be implemented more quickly at the terminal.

- (4) All terminal plans shall be signed by the applicable terminal's Responsible Official under penalty of perjury and are subject to verification by CARB staff. The division of responsibilities between the terminal operator and the port must be signed by the port's Responsible Officer under penalty of perjury.

(b) Port plans.

(1) Port plan requirements.

Port operators shall submit a plan showing proof that the necessary terminal infrastructure modifications are being developed or have been completed and/or report any modifications still required in order for all of the Port's terminals with control requirements to reduce emissions of vessels at berth. Ports should use terminal plans as a basis for developing port plans, and may submit terminal plans on behalf of one or more of the port's terminal operators.

(2) Port plan submission dates.

Port operators shall submit port plans to CARB by the following dates:

- (A) Container, refrigerated cargo, passenger terminals: December 1, 2021;
- (B) Ro-ro terminals: December 1, 2021;
- (C) LA/LB tanker terminals: December 1, 2021;
- (D) Non-LA/LB tanker terminals: December 1, 2021;
- (E) Updated plan by July 1 the following year after any new terminal at the port exceeds the annual visit threshold.

(3) Port plan information.

The port operator shall include in its port plan a discussion of necessary infrastructure modifications needed to reduce emissions from ocean-going vessels at a terminal, such that each terminal at the port is capable of meeting compliance requirements by the implementation dates listed in Table 1. For each strategy implemented at a berth, the plan must include all of the following:

- (A) Identification and description of which strategy each applicable terminal will use for compliance;
- (B) Identify any equipment purchases and/or construction that are in progress or must still be completed to reduce emissions;
- (C) Provide schedule for installing equipment and/or any necessary construction projects;
- (D) Identify terminals where equipment will be used;
- (E) Listing of each terminal with geographic boundary coordinates;
- (F) Specify any port specific berthing restrictions; and
- (G) List the division of responsibilities between the terminal and the ports for enacting the infrastructure required by each terminal's plan.

- (4) All port plans shall be signed by the applicable port's Responsible Official under penalty of perjury and are subject to verification by CARB staff. The division of responsibilities between the terminal operator and the port must be signed by the terminal's Responsible Officer under penalty of perjury.
- (c) Review of terminal and port plans.

Within 90 calendar days following submittal of a terminal plan under section 93130.14(a) or a port plan under section 93130.14(b), CARB shall notify the applicable terminal operator or port of any deficiencies in the contents of the plan (as set forth in sections 93130.14(a) and (b) respectively), and/or in the plan's demonstration that the terminal or port is making good faith efforts to facilitate use of a CARB approved control strategy at each berth. If CARB does not notify the applicable terminal operator or port of any such deficiencies, the plan shall be deemed acceptable on the 90th calendar day following submittal.

- (d) Interim evaluation for new technologies and applications.

CARB staff will assess the progress made in adopting control technologies for use with tanker and ro-ro vessels, as well as the status of landside infrastructure improvements that may be needed to support emission reductions at ro-ro and tanker terminals. CARB staff will review control technologies for use with bulk and general cargo vessels, and for ocean-going vessels at anchor, and potential requirements for these vessel types. CARB staff will evaluate the information provided by the port and terminal plans required by this Control Measure. CARB staff will also consider other public information provided to CARB including terminal specific engineering evaluations, logistical considerations, public engagement, and independent studies that inform the implementation timeline. By December 1, 2022, staff will publish an analysis and findings in a report and make it available for public review at least 30 calendar days prior to presenting the report to the Board at a public meeting. If staff finds that the compliance deadlines for ro-ro or tanker vessels need to be adjusted forward or backward in time, the report will include recommendations to initiate staff's development of potential formal regulatory amendments.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

## Section 93130.15. Remediation Fund Use

This section sets forth an additional compliance option which may be used under limited circumstances where vessel operators, terminal operators, CAECS operators, and/or ports have made certain enforceable commitments to controlling emissions at berth. Even if the emissions are not controlled for all or part of a vessel visit, under certain circumstances, a vessel operator, terminal operator, CAECS operator, or port may qualify to remediate emissions, as set forth in this section.

- (a) For a vessel operator, terminal operator, CAECS operator, or port to utilize the remediation fund, a remediation fund administrator must be established with a Memorandum of Understanding executed with CARB under section 93130.16 of this Control Measure to manage the funds generated at that port or independent marine terminal.
- (b) Vessel operators, terminal operators, CAECS operators, and ports may request to use the remediation fund option in the following circumstances, if the request is supported by compelling documentation that demonstrates the eligibility of the request, consistent with the criteria in this section, as determined by CARB.
  - (1) Terminal or port equipment repairs – a terminal or port has invested in shoreside control equipment, and maintains that equipment according to manufacturer recommendations, but that equipment needs maintenance, needs commissioning, has failed and is being repaired, or new or replacement equipment has been ordered in a timely manner, but has not been received.
  - (2) Vessel equipment repairs -- a vessel operator has invested in shore power or other on-board control equipment, and maintains that equipment according to manufacturer recommendations, but that equipment needs maintenance, needs commissioning, has failed and is being repaired, or new or replacement equipment has been ordered in a timely manner, but has not been received.
  - (3) Delays with operation of existing control strategy – a vessel visits a berth and all parties have taken the required actions to use a CARB approved control strategy, but the visit fails to achieve the full emission reductions required under section 93130.5 of this Control Measure due to a delay or interruption in controlling emissions or a failure of the CAECS operator under contract to perform. If a CAECS operator has a malfunction that causes or contributes to a delay or interruption in emissions control, that operator must notify CARB of the malfunction according to the provisions of section 93130.12(b)(4) of this Control Measure for that visit to be eligible to use the remediation fund for the uncontrolled hours of the visit.

- (4) Terminal or port construction project – a terminal or port has invested in shoreside control equipment, and maintains that equipment according to the manufacturer recommendations, but takes that equipment out of service to allow a planned terminal upgrade or construction project that cannot safely be performed with the terminal side control equipment operating.
  - (5) A terminal plan deemed acceptable under section 93130.14(c) of this Control Measure identifies a physical and/or operational constraint that is delaying the implementation of a CARB approved emission control strategy at the terminal.
- (c) For excess vessel emissions that are otherwise required to be reduced under section 93130.5 of this Control Measure, the vessel operator, terminal operator, or port may elect to request use of the remediation fund option for each hour of uncontrolled emissions during a vessel visit if all of the criteria in this section 93130.15 of this Control Measure are met. Such request shall be submitted to CARB electronically within 30 calendar days of the vessel's departure, according to the requirements of section 93130.7(e) for vessel operators, section 93130.9(d) for terminal operators, and section 93130.13 for ports.
  - (d) For each request to use the remediation fund option, CARB shall evaluate the request to determine if the requirements of this section have been met and the request is eligible. If the party requesting use of the remediation fund option fails to adequately support its eligibility for that option based on the criteria in subsection (c), above, to CARB's satisfaction, then CARB may deny that request. Within 30 calendar days of receipt of each request, CARB shall notify the requestor whether the visit or visits are eligible to use the remediation fund option. Ineligible requests to use the remediation fund for a vessel visit shall result in that visit being considered non-compliant with this regulation.
  - (e) Within 30 calendar days of CARB's determination of eligibility, the requestor shall transfer a sum equal to the number of hours of excess emissions times the applicable hourly payment to the CARB approved fund administrator, according to the specific payment provisions established by that administrator in its Memorandum of Understanding with CARB. Each partial hour of excess emissions shall be counted as a full hour for the purpose of calculating the payment. These payments are intended to cover the administrators cost to achieve emission reductions through incentive activities in the communities exposed to the excess emissions, including 10 percent for administration expenses.
  - (f) Remediation fund hourly amount.

<b>Table 4: Remediation Fund Hourly Amount</b>		
<b>Vessel Type</b>	<b>Hourly Remediation Payment Beginning in 2023*</b>	
	<b>Normal Rate</b>	<b>Tier III Rate</b>
<b>Container, Reefer, Ro-ro</b>	\$1,900	\$1,100
<b>Tanker with electric pumps</b>	\$1,600	\$1,000
<b>Tanker with steam driven pumps</b>	\$3,400	\$2,700
<b>Passenger vessels with capacity under 1,500 combined passengers and crew</b>	\$5,300	\$3,200
<b>Passenger vessels with capacity of 1,500 or more combined passengers and crew</b>	\$12,000	\$7,100
* Remediation payments used by vessel operators shall be reduced by 20 percent for IMO Tier III tanker vessels with steam driven pumps, and 40 percent for all other IMO Tier III vessels.		

- (g) Prior to the beginning of each odd numbered calendar year, the hourly remediation payment amounts set forth in this section and listed in Table 4 shall be adjusted by considering the current Consumer Price Index values published by the Bureau of Labor Statistics relative to 2019, to determine the hourly remediation payment amounts for that calendar year and the subsequent year. CARB shall post any updates to the hourly remediation payment on its website.
- (h) For requests to use the remediation fund option for multiple vessel visits over an extended time period, the requestor may seek a prospective eligibility determination from CARB before the relevant visit occurs. Upon CARB’s determination of eligibility, the requestor shall report data on each vessel visit within the required 30 calendar days, and shall make payments at least monthly to the remediation fund administrator until the equipment is operational again and payments have been made for all uncontrolled vessel visits.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

**Section 93130.16. Remediation Fund Administration.**

This section sets forth the criteria for CARB approval of an entity to administer a remediation fund for individual ports and independent marine terminals, and

the requirements for approved administrators to manage those funds. The intent of the remediation fund is to mitigate the community impact of the excess emissions from vessel visits that did not reduce emissions at berth to the required levels, as set forth under section 93130.15. To be eligible for use under this Control Measure, the monies from the remediation fund must (1) fund incentive activities that comply with adopted CARB guidelines on existing incentive programs; and (2) achieve emission reductions that are early or in excess of any other state, federal or international rule, regulation, statute, or any other legal requirement (including any requirement under a Memorandum of Understanding with a government entity) or an emission reduction strategy identified in an AB 617 Community Emissions Reduction Program that has been approved by CARB's Board. As used in this section, the term "guidelines" refers to CARB funding program guidance documents, including CARB funding program related documents titled either as "guidelines" or as "blueprints".

- (a) CARB staff shall notify the following entities in writing regarding the opportunity to apply to administer the remediation funds: the California Air Pollution Control Officers Association (CAPCOA), and the local air quality management districts and air pollution control districts with jurisdiction in the communities adjacent to ports and independent marine terminals that are subject to this Control Measure.
- (b) Each district may elect to submit a written application, within 120 calendar days of notification, to the Executive Officer to administer remediation funds for that district's geographic area.
- (c) Applications shall include the following information:
  - (1) Description of the applicant's experience implementing incentive programs for heavy-duty diesel vehicles and off-road equipment, with a focus on the Carl Moyer Memorial Air Quality Standards Attainment Program, also known as the Carl Moyer Program; the incentive program developed under the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006, also known as the Proposition 1B Program; the incentive program developed under Assembly Bill (AB) 617 (Garcia, Stats. 2017, ch. 136), also known as the Community Air Protection Incentives; or similar programs for mobile and/or stationary sources of air pollution.
  - (2) Description of the applicant's technical knowledge of engines, vehicles, equipment, and/or stationary air pollution sources that would be eligible for incentives.
  - (3) Description of the remediation activity types and applicable CARB incentive program guidelines the fund administrator will use to recruit, evaluate, select, fund and track incentive activities.

- (4) Demonstration of the applicant's capacity to administer the fund, including: personnel resources; operating budgets; accounting and legal support; activity tracking, emission reduction quantification, reporting mechanisms, and outreach experience.
  - (5) The ability to establish a separate account, and track deposits and payments, solely for the remediation fund.
  - (6) The proposed timeline for recruiting and funding incentive activities, and for those activities becoming operational to reduce emissions, once remediation funds are deposited into the applicant's separate account. For efficiency, these milestones may be aligned with existing solicitations, obligation, and liquidation deadlines for other incentive programs.
  - (7) Description of any other incentive or funding programs with which any remediation funds may be combined. In funding remediation activities, remediation funds may only be combined with funds from other incentive programs to the extent that the emissions reductions caused by the remediation fund are capable of being calculated and attributed to the remediation fund. If funds would be combined in this manner, the application shall demonstrate that the emissions reductions resulting from the remediation fund can properly be attributed to, and claimed by, the remediation fund.
- (d) CARB shall review submitted applications to determine whether the applicant is eligible and all required information is included in the application. CARB may request additional information from the applicant if necessary to determine the applicant's eligibility, or to determine that the criteria set forth below are met. CARB shall verify that:
- (1) The applicant is eligible to administer a remediation fund based on the criteria in subsection (c) above;
  - (2) The application is complete, and the responses demonstrate the applicant's capacity to successfully administer the remediation fund to the satisfaction of CARB; and
  - (3) The application includes a resolution from the applicant's governing board authorizing the applicant to participate in the remediation fund program; and
  - (4) The emissions reductions resulting from the remediation fund can properly be attributed to, and claimed by, the remediation fund.
- (e) If CARB determines that the conditions in subsection (d) above have been met, CARB will notify the applicant and execute a Memorandum of Understanding with the applicant to enable the applicant to serve as the remediation fund administrator for ports and independent marine terminals in that air district's geographic area.

- (f) If the air district with jurisdiction in the region that includes a covered port or independent marine terminal does not execute a Memorandum of Understanding with CARB to administer the remediation fund, CARB may invite non-profit organizations in the region, other air districts, or CAPCOA, with the demonstrated capacity and substantial experience administering incentive programs to apply. Any invited organization that wishes to participate must demonstrate no conflict of interest with the intended purpose of the remediation fund. CARB may approve an organization as the remediation fund administrator following the procedures and requirements of this section.
- (g) CARB will post an executed Memorandum of Understanding, and each successful applicant's application, on its public website.
- (h) Each Memorandum of Understanding shall include the following minimum elements:
  - (1) Parties, contact information, effective date and term.
  - (2) Environmental justice: The fund administrator agrees to conduct its programs in a manner that ensures the fair treatment of all people in the State.
  - (3) Emission reductions: The fund administrator agrees to use remediation funds for incentive activities that directly benefit communities impacted by excess emissions from the port or independent marine terminal, and achieve emission reductions consistent with CARB's most recent applicable incentive program guidelines for: Carl Moyer Program, Proposition 1B Program, or Community Air Protection Incentives program. Fund administrators shall seek to prioritize eligible activities in communities that are also identified by CARB under the AB 617 Community Air Protection Program or disadvantaged communities as defined by the Secretary for Environmental Protection. While at berth remediation funds can be administered as part of an existing incentive program, the remediation funds cannot be used in place of any required match funding. Remediation funds may only be combined with funds from other incentive programs to the extent that the emissions reductions caused by the remediation fund are capable of being calculated and attributed to the remediation fund.
  - (4) Incentive activity types and applicable guidelines: The fund administrator agrees to recruit, evaluate, select, fund and track incentive activities in conformance with the requirements of the applicable guidelines for the incentive program or programs identified in the application.
  - (5) Schedule: The fund administrator will identify anticipated major milestones for implementing emission reduction projects once

remediation monies have been received by the administrator including a timeframe by when remediation monies will be expended.

- (6) Reporting requirements: The fund administrator is responsible for submitting to CARB semi-annual reports covering fiscal activity and remediation activities funded, including, but not limited to, recipient, type, location, and estimated emission reductions achieved.
- (7) Recordkeeping requirements: The fund administrator agrees to retain fund records, e.g., solicitations, applications, invoices, contracts, and correspondence, for five years after a funded incentive activity has concluded.
- (8) Oversight: The fund administrator agrees to allow ongoing evaluations, reviews, and fiscal audits by CARB, other State agencies, or their designees.
- (9) Records access: The fund administrator agrees to allow CARB or its designees access to evaluate or audit fund records.
- (10) Enforcement: The fund administrator authorizes CARB or its designee to inspect incentive activities to ensure compliance with CARB requirements.
- (11) Administration expenses: The fund administrator may retain up to 10 percent of the remediation funds collected for its direct and reasonable expenses incurred to implement the incentive program.
- (12) Earned interest: The fund administrator agrees to maintain records and report on interest earned on remediation funds, and to expend earned interest according to the provisions of the Memorandum of Understanding.
- (13) Non-performance provisions: The fund administrator agrees that the following is a non-exhaustive list of the circumstances that constitute non-performance under the Memorandum of Understanding. These circumstances include, but are not limited to:
  - (A) Failure to comply with the provisions of this Control Measure for remediation fund administrators or the CARB approved guidelines of the applicable incentive programs.
  - (B) Failure to obligate or expend remediation funds within established timelines, or to show timely interim progress to meet these timelines.
  - (C) Insufficient performance or widespread deficiencies with remediation fund oversight, enforcement, record keeping, contracting provisions, inspections, or any other fund element as determined by CARB.

- (D) Misuse of remediation funds.
  - (E) Funding of ineligible incentive activities or other items.
  - (F) Exceeding administration fund allotment.
  - (G) Insufficient, incomplete, or faulty incentive activity documentation.
  - (H) Failure to provide required documentation or reports requested from CARB, or other State agencies, in a timely manner.
  - (I) Poor performance as determined by a review or fiscal audit.
- (14) Remedies: The fund administrator agrees to provisions to remedy non-performance, including:
- (A) A corrective action plan.
  - (B) Transfer of collected remediation monies to an alternative fund administrator identified by CARB.
  - (C) Constraints on opportunity to administer future remediation funds.
  - (D) Termination of the Memorandum of Understanding.
- (15) Indemnification: The fund administrator agrees to indemnify and hold harmless the State for any liability arising out of the performance by the fund administrator.
- (16) Entitlements and regulatory compliance: The fund administrator agrees to comply with all laws, ordinances, regulations, and standards in administering remediation activities, including by obtaining any permits or approvals necessary to undertake the activities funded by the remediation fund, and complying with all environmental review requirements associated with such activities.
- (17) Severability: The remaining provisions of an agreement continue in effect even if a court holds a specific provision invalid.
- (18) Force majeure: CARB and fund administrator are not liable for any delay or failure in performance resulting from war, natural disasters, and other acts beyond their control.
- (19) Amendments: The amendments shall only occur by mutual agreement in writing and signed by all parties.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

**Section 93130.17. Innovative Concept Compliance Option.**

This section sets forth a compliance option to provide a regulated entity a way to incorporate an innovative concept to reduce emissions from sources in and around the regulated port or marine terminal at a level equivalent or greater to what would be achieved by reducing emissions from vessels under sections 93130.7 and 93130.9 of this Control Measure.

As set forth in this section, one or more innovative concepts can be implemented as a compliance pathway for meeting the requirements of this Control Measure, provided the innovative concepts result in emission reductions of PM 2.5, NOx, and ROG that are at least equivalent to the emission reductions that would have occurred using a CAECS.

- (a) General requirements for using an innovative concept compliance option.
  - (1) Applicants seeking approval of an innovative concept must submit their applications to the Executive Officer on or before the following dates in Table 5 for each vessel category:

<b>Table 5: Innovative Concept Application Due Date</b>	
<b>Vessel Type</b>	<b>Due Date</b>
<b>Container/ Reefer</b>	December 1, 2021
<b>Passenger</b>	December 1, 2021
<b>Ro-ro</b>	December 1, 2021
<b>LA/LB Tankers</b>	December 1, 2021
<b>Other Tankers</b>	December 1, 2021

- (2) The proposed innovative concept must reduce NOx, PM 2.5, and ROG emissions equivalent to or greater than the level that would have been achieved by the Control Measure, while not increasing GHG. Emission reductions are verified each year through annual reporting in section 93130.17 (d) of this Control Measure.
    - (3) The proposed innovative concept must achieve emissions reductions of NOx, PM 2.5 and ROG that, as of the date the compliance period begins, are early or in excess of: (1) any other state, federal or international rule, regulation, statute, or any other legal requirement (including any requirement under a Memorandum of Understanding with a government entity), that is in effect, has been approved, or has been noticed; or (2) of an emission reduction strategy identified in an

AB 617 Community Emissions Reduction Program that has been approved by CARB's Governing Board.

- (4) The proposed innovative concept must achieve reductions in and around the California port or marine terminal at which the vessel visits take place for which the innovative concept is used. The reductions must be at the same port or marine terminal, within adjacent communities, or overwater within three nautical miles of the port or marine terminal.
- (5) The proposed innovative concept must not increase emissions at other ports or marine terminals.
- (6) The proposed innovative concept must achieve emissions reductions that exceed any reductions otherwise required by law, regulation or legally binding mandate, and that exceed any reductions that would otherwise occur in a conservative business-as-usual scenario. For purposes of this section, "business as usual" means the set of conditions reasonably expected to occur within the relevant area in the absence of the incentive provided by the innovative concept provisions of this Control Measure, taking into account all current laws and regulations, as well as current economic and technological trends. The proposed innovative concept must achieve reductions that are real, quantifiable, verifiable, and enforceable where:
  - (A) "Real" means that reductions result from a demonstrable action or set of actions, and are quantified using appropriate, accurate, and conservative methodologies that account for all emissions within the innovative concept;
  - (B) "Quantifiable" means the ability to accurately measure and calculate reductions relative to a project baseline in a reliable and replicable manner for all emissions within the innovative concept;
  - (C) "Verifiable" means that any emission assertions are well documented and transparent such that it lends itself to an objective review; and
  - (D) "Enforceable" means the authority for CARB to hold a particular party or parties liable and to take appropriate action if any of the provisions of this article are violated.
- (7) No innovative concept shall have a compliance period greater than five years. If any law, regulation, or legally binding mandate (including any requirement under a Memorandum of Understanding with a government entity) requiring emission reductions comes into effect, is approved, or is noticed, which would affect the innovative concept, during an innovative concept's compliance period, then the innovative concept may continue to claim those emission reductions

for the remainder of the compliance period, but the innovative concept may not be renewed for another compliance period. If an innovative concept has not been approved prior to the law, regulation, or legally binding mandate (including any requirement under a Memorandum of Understanding with a government entity) going into effect, or being approved, or being noticed, or the law, regulation, or legally binding mandate goes into effect before the innovative concept's compliance period renews, then only emission reductions that are in excess of what is required to comply with those laws, regulations, and/or legally binding mandates may be attributed toward the innovative concept. Upon completion of a compliance period, the Executive Officer may approve another compliance period of up to five years and the approved innovative concept shall continue to be effective provided the following requirements are met:

- (A) The applicant provides an updated application to the Executive Officer at least 180 calendar days prior to the end of the first compliance period;
  - (B) The updated application shall address all items from section 93130.17 (b)(1) and also clearly show that compliance with this subsection will continue for the next compliance period; and
  - (C) The Executive Officer approves the updated application for an additional compliance period.
- (8) No innovative concept shall be extended for another compliance period if:
- (A) The Executive Officer concludes that any of the circumstances listed in subsection 93130.17 (f)(1) of this Control Measure are present; or the applicant elects to cancel an approved innovative concept. If this occurs, vessel operators and terminal operators that had intended to use the canceled innovative concept shall comply with the provisions of this Control Measure, including the emission limits in sections 93130.7 and 93130.9 of this Control Measure. An innovative concept that is canceled prior to the end of its approved compliance period shall have its compliance period adjusted to end at the effective date of cancellation.
- (9) Visits made under an innovative concept are not counted toward a fleet's VIEs or terminal operator's TIEs in section 93130.11 of this Control Measure, and are ineligible for using the remediation fund provisions in section 93130.15 of this Control Measure.

- (10) Reductions can be used toward compliance as specified in this section only in the calendar year in which they are achieved or the following calendar year.
  - (11) Early reductions achieved through an innovative concept that occur before a vessel or terminal's first compliance period can be used towards compliance during the first compliance period of up to five years. However, early reductions are only applicable for the initial compliance period, and will expire when the initial compliance period ends.
  - (12) No innovative concept shall be partially or fully funded with a public incentive program.
  - (13) Any person complying with this Control Measure using an approved innovative concept shall maintain records in a manner and form as specified by the Executive Officer in the approved innovative concept. Required records include, but are not limited to, information on fuel usage, routes, port calls, maintenance procedures, and emissions test results. Such records and reports shall be retained for a period of not less than five years and shall be submitted to the Executive Officer in the manner specified in the approved innovative concept and upon request by the Executive Officer, either within 10 calendar days or by a later date approved by the Executive Officer on a case-by-case basis.
  - (14) No person shall comply with this section by operating under an innovative concept unless the applicant has first been notified in writing by the Executive Officer that the innovative concept application has been approved. Prior to such approval, vessel operators and terminal operators intending to use the innovative concept shall comply with the provisions of this section, including the emission limits in sections 93130.7 and 93130.9 of this Control Measure;
  - (15) The innovative concept must be implementable within the timeframe needed to be used for compliance with this Control Measure, including any time needed for environmental review (if applicable); and
  - (16) No person shall comply with this section by operating under an innovative concept that has been revoked as provided in section 93130.17 (f) of this Control Measure.
- (b) Application and approval process.
- (1) Applications for innovative concepts shall contain, at a minimum, the following information:
    - (A) Company name, address, and contact information;

- (B) Description of proposal including an overview of the source and scope of emission reductions, and a project site plan and location map;
  - (C) Estimate of the vessel emissions planned to be covered under the innovative concept for each pollutant NO<sub>x</sub>, PM 2.5 and ROG by multiplying the emission factor for a pollutant found in section 93130.5 (d) of this Control Measure by the expected number of vessel visits, average visit duration, and expected power used during an average visit;
  - (D) The proposed recordkeeping, reporting, monitoring, and testing procedures that the applicant plans to use to demonstrate reductions;
  - (E) A Memorandum of Understanding or similar agreement between the applicant, any funding partners (if more than one entity is providing funding), owners and operators of controlled equipment for the innovative concept that shows agreement regarding the innovative concept's scope and requirements for using the innovative concept in compliance with this Control Measure. The Memorandum of Understanding or similar agreement must be approved by the Executive Officer and must be in place prior to the start date of the innovative concept compliance period;
  - (F) The proposed length of time during which the innovative concept would be used (up to five years, as specified in subsection 93130.17 (a) (8) of this Control Measure), as well as the number and duration of any anticipated time extension requests as set forth in that same subsection;
  - (G) A summary of all governmental approvals necessary to enable development of the innovative concept; and
  - (H) A discussion regarding any environmental review requirements that may apply to the proposed innovative concept, including identification of which agency would serve as the lead agency for environmental review purposes; and
  - (I) Any information necessary to demonstrate that the proposed innovative concept meets all eligibility and applicability requirements in subsection 93130.17 (a).
- (2) Applications will be published on CARB's website, and made available for 45 calendar days for public comment. After the public comment period, applicants shall submit to CARB a response to all

public comments within 45 calendar days so the response can be posted with the application.

- (3) CARB Review and Approval. Once CARB posts the response, CARB shall evaluate the innovative concept to determine if:
  - (A) The concept meets all eligibility and applicability requirements in subsection 93130.17 (a);
  - (B) The applicant provides enough information to estimate emission reductions;
  - (C) The applicant provides a strategy to accurately record, report, monitor, and test for emission reductions;
  - (D) The applicant responded fully to all public comments;
  - (E) The applicant has demonstrated that the concept will be implementable within the timeframe needed to be used for compliance with this Control Measure, including any time needed for environmental review (if applicable); and
  - (F) All required environmental review (if applicable), including any review required under the California Environmental Quality Act, has been completed for the proposed innovative concept.
    - i. The determination as to which agency serves as the lead agency for purposes of the California Environmental Quality Act shall be made as specified in sections 15050 et seq. of title 14 of the California Code of Regulations.
    - ii. If CARB is not the lead agency for purposes of conducting environmental review on a proposed innovative concept, the applicant must provide final, legally adequate environmental analysis documentation to CARB before the Executive Officer will approve the innovative concept for use in complying with this Control Measure. If no environmental review is determined to be required by a local lead agency, the applicant must submit documentation explaining why environmental review is not required, to the Executive Officer's satisfaction. The Executive Officer may deny, in whole or in part, an innovative concept application if, for any reason, the Executive Officer determines the innovative concept or the lead agency has not satisfied its environmental review requirements.
    - iii. If CARB is the lead agency for purposes of conducting environmental review on a proposed innovative concept, then the applicant shall provide any additional

documentation as needed to complete any environmental review CARB deems necessary. CARB's review and approval of an innovative concept is not a land use approval; CARB lacks authority to either permit or deny an applicant from moving forward with the activity underlying a proposed innovative concept. CARB's authority in reviewing an innovative concept proposal is limited to determining whether a proposed innovative concept is eligible for use in complying with this Control Measure. The Executive Officer may deny, in whole or in part, an innovative concept application if necessary to avoid any significant environmental impact, or for any other reason set forth in this section.

iv. Environmental Review Costs and Fees. If environmental review is required in connection with a proposed innovative concept and CARB incurs costs in preparing such environmental review, CARB may charge and collect a reasonable fee from innovative project applicants to recover those costs as set forth in section 21089 of the Public Resources Code.

- (4) If an application is approved, the Executive Officer will notify the applicant of approval to use the innovative concept for compliance with this Control Measure and will publish the approval in an Executive Order, along with the application. The Executive Officer's approval of an application is not a local land use approval. All innovative concepts must fully comply with all applicable laws, ordinances, regulations and standards, including by obtaining any permits or approvals necessary to undertake the activities constituting the Innovative Concept, and complying with all environmental review requirements associated with such activities.
  - (5) If an application is incomplete, the Executive Officer will notify the applicant of the deficiency. Applications will be denied after 30 calendar days unless the applicant corrects and resubmits the application for a new evaluation per section 93130.17 (b)(3) of this Control Measure.
- (c) Reporting visit information.
- (1) All vessel operators and terminal operators using an approved innovative concept to comply with this Control Measure shall report all vessel visit activity as specified in section 93130.7, and sections 93130.9 respectively.
- (d) Annual reporting.

By February 1 of each year, an innovative concept applicant shall report its use of an innovative concept for the prior calendar year to CARB, as set forth in the subsections below. The report shall include a list of each pollutant in section 93130.17(a)(2) from vessel visits that used the innovative concept to comply with the Control Measure, and a list of the reductions for each pollutant achieved through the innovative concept to comply with the Control Measure. The emission reductions of each pollutant achieved by the innovative concept must be equal to or exceed the emissions of each pollutant from the cumulative vessel visits.

- (1) Listing of visits and emissions from ocean-going vessels that used the innovative concepts to comply with the Control Measure.
  - (A) The applicant shall determine the total amount of emissions from all vessel visits that used an innovative concept toward compliance.
  - (B) Emissions are determined by using the total fuel used reported for each vessel visit at berth in section 93130.7 (e)(4)(N) of this Control Measure in kg multiplied by the factor (1 kWh / 0.270 kg MGO) multiplied by the anticipated emissions reductions rate for each pollutant of NO<sub>x</sub>, PM 2.5 and ROG. The anticipated emission reductions rate for each pollutant is the difference between the default emission rate and the achieved emission rate found in section 93130.5 (d)(1) and (2) of this Control Measure.
  - (C) If an innovative concept affects the amount of fuel used on a vessel's visit then the applicant must instead provide the total power consumed at berth by the vessel as a basis to estimated baseline emissions of the vessel. In this case, baseline emissions are determined as the total power consumed at berth multiplied by the anticipated emissions reductions rate for each pollutant of NO<sub>x</sub>, PM 2.5 and ROG. The anticipated emission reductions rate for each pollutant is the difference between the default emission rate and the achieved emission rate found in section 93130.5 (d)(1) and (2) of this Control Measure.
- (2) Listing of emissions reductions that were achieved with the innovative concept to offset ocean-going vessel emissions.

Applicants shall calculate innovative concept reductions for each pollutant using the methodology described in the application per section 93130.17 (b)(1)(D) of this Control Measure.

- (e) Submissions.

Applications and reports for innovative concepts shall be submitted to CARB according to section 93130.19 of this Control Measure.

- (f) Revocation or modification of approved innovative concepts.
  - (1) The Executive Officer may revoke or modify an approved innovative concept Executive Order if the Executive Officer concludes:
    - (A) The innovative concept application provisions in this Control Measure or Executive Order are not met;
    - (B) The approved innovative concept no longer meets the criteria or requirements for an innovative concept;
    - (C) The applicant can no longer comply with the requirements of the approved innovative concept in its current form; or
    - (D) The approved innovative concept becomes no longer capable of being used for compliance with this Control Measure, for any reason, including due to failure to meet any eligibility or applicability requirement in subsection 93130.17 (a), or if any review or implementation related circumstances might delay the innovative concept such that it is no longer useful as a compliance pathway.
  - (2) CARB will provide 30 calendar days notice to the innovative concept holder of the revocation or modification.
  - (3) CARB's determination is final and not subject to review.
  - (4) Public notification of a revocation or modification of an approved innovative concept shall be made available on CARB's website.
- (g) Responsibility to ensure compliance.

If a proposed innovative concept is not approved, or if an innovative concept is not ultimately implemented in a manner enabling it to be used as a pathway for compliance with this Control Measure, then the otherwise-applicable provisions of this Control Measure shall prevail. Any entity failing to comply with this Control Measure is in violation of this Control Measure, as set forth in 93130.20 of this Control Measure.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

### **Section 93130.18. Summary of Responsibilities.**

This Control Measure has shared responsibilities between all parties involved in reducing emissions from ocean-going vessels. Table 6 and 7 outlines a

summary of responsibilities and how the terminal or vessel operator can apply exceptions, VIEs, TIEs, and remediation fund.

<b>Table 6: Summary of Responsibilities</b>				
<b>Circumstances that may qualify for an Exception, a VIE/TIE, or remediation</b>				
<b>Circumstances</b>	<b>Exception</b>	<b>VIE/TIE</b>	<b>Remediation Fund</b>	<b>Responsible Parties</b>
<b>Safety/emergency, research, vessel commissioning, or innovative concept</b>	X			
<b>Visits without reductions</b>		X	*	Terminal, Vessel
<b>Vessel control equipment repair</b>		X	X	Vessel
<b>Terminal control equipment repair</b>		X	X	Terminal, Port
<b>Terminal upgrades/construction</b>		X	X	Terminal, Port
<b>Delays, but reductions occur</b>		X	X	Terminal, Vessel, CAECS operator
<b>CAECS equipment failure, or CAECS failure to perform</b>		X	X	Vessel, Terminal, CAECS operator
*In general, all visits may use a VIE or TIE if available, but not all visits qualify for remediation. See section 93130.15(b) of this Control Measure				

<b>Table 7: Summary of Responsibilities (Continued)</b>		
<b>Circumstances that will be evaluated for non-compliance</b>		
<b>Circumstances</b>		<b>Responsible Parties</b>
<b>Berth</b>	<b>Vessel</b>	
<b>Has shore power</b>	<b>Does not have shore power</b>	Vessel
<b>No shore power, but has other CAECS</b>	<b>Has shore power</b>	Terminal, Port
<b>No shore power, but has other CAECS</b>	<b>Does not have shore power</b>	Terminal, Port, Vessel
<b>Has other CAECS</b>	<b>No shore power, but doesn't allow CAECS</b>	Vessel

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

**Section 93130.19. Sending information to CARB.**

- (a) The sender shall ensure all information submitted to CARB is:
- (1) Written in the English language;
  - (2) Attested that it is true, accurate, and complete, signed under penalty of perjury by individual(s) with the authority to certify that the regulated party comply with applicable requirements of this Control Measure; and
  - (3) Submitted to CARB in writing to:  
 CHIEF, TRANSPORTATION AND TOXICS DIVISION  
 CALIFORNIA AIR RESOURCES BOARD  
 1001 I STREET  
 SACRAMENTO, CA 95814
- (b) If available, CARB may also allow online submittal to a CARB reporting system or e-mail with instructions on the CARB website.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

### **Section 93130.20. Violations.**

- (a) Any person subject to this Control Measure who fails to comply with any provision, prohibition, limit, standard, criteria, or requirement in this Control Measure is subject to the penalties, injunctive relief, and other remedies specified in Health and Safety Code sections 38580, 39674, 42400 et seq., 43016, other applicable sections in the Health and Safety Code, and other applicable provisions as provided under California law for each violation. All responsible parties may be held jointly and severally liable for violating this Control Measure. Nothing in this Control Measure shall be construed to limit or otherwise affect any penalties or other remedies available under federal law.
- (b) Any failure to meet any provision, prohibition, limit, standard, duty, criteria, or requirement in this Control Measure shall constitute a single, separate violation of this Control Measure for each calendar day that a vessel operates without using a CAECS.
- (c) Violating the recordkeeping or reporting requirements in this Control Measure shall constitute a single, separate violation of this section for each calendar day that the applicable recordkeeping or reporting requirement has not been met.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 39674, 41510, 41511, and 43016, Health and Safety Code.

### **Section 93130.21. Sunset.**

The requirements specified in this Control Measure shall cease to apply if the United States adopts and enforces requirements that will achieve emissions reductions within the Regulated California Waters equivalent to those achieved by this Control Measure. Equivalent requirements may be from IMO regulations adopted and enforced by the United States, or may be contained in regulations adopted or enforced by the United States Environmental Protection Agency. This Control Measure shall remain in effect until the Executive Officer issues written findings that federal requirements are in place that will achieve equivalent emissions reductions within the Regulated California Waters and are being enforced within the Regulated California Waters.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.

**Section 93130.22. Severability.**

If any section, paragraph, subparagraph, sentence, clause, phrase, or portion of this Control Measure is held invalid, unconstitutional, or unenforceable by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of the Control Measure.

Note: Authority cited: Sections 38560, 38562, 39600, 39601, 39658, 39659, 39666, 43013, and 41511, Health and Safety Code. Reference: Sections 38510, 38530, 38562, 38566, 38580, 39600, 39650, 39658, 39659, 39666, 41510 and 41511, Health and Safety Code.