

At Berth Frequently Asked Questions

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Table of Contents

At Berth Frequently Asked Questions	1
Introduction and Disclaimer.....	8
General Questions & Applicability.....	9
1. What is this FAQ document, and how should I use it?	9
2. Why did CARB develop the 2020 At Berth Regulation?	9
3. Who must comply with the 2020 Regulation?.....	9
4. When do requirements for the 2020 Regulation begin?	10
5. Are any vessels exempt from the requirements for the 2020 Regulation?	12
6. Are there any exceptions to the emission control requirements for the 2020 Regulation?.....	12
7. Who is responsible for measuring and reporting visible emissions?	12
8. What should I do if I know I will be in violation of the 2020 Regulation?	12
9. What is the policy or process for violations?	13
10. What is the penalty for not complying with the 2020 Regulation?	13
Emission Control Requirements.....	13
11. How are regulated entities expected to comply with the emission control requirements in the 2020 Regulation?	13
12. Can the emission control time period be averaged?	14
13. Which emission sources on the vessel need to be controlled at berth?	14
14. Are emissions from diesel mechanically driven FRAMO pumps subject to the 2020 Regulation?.....	14
15. Are emissions from the tanker inert gas system subject to the 2020 Regulation?	14
16. What is a CARB Approved Emission Control Strategy?	15
17. What emission control strategies are currently CARB approved?	15
18. If a vessel has shore power, is it required to use shore power during a visit to a regulated terminal?....	16
19. Can a vessel without shore power visit California? What are the compliance options for a non-shore power vessel?	16
20. Does a vessel have to use a previously approved CAECS to comply with the 2020 Regulation? Could a vessel use onboard technologies?	16
21. What if a vessel cannot control emissions while at berth?	16
22. Who is responsible for providing shore-side emissions control equipment and/or infrastructure?.....	17
23. Can regulated entities rely on commercial arrangements with third--party CAECS operators to meet the emission control requirements of the 2020 Regulation?	17
Visit Reporting Requirements	17
24. What defines a "visit"?.....	17
25. Who is required to report and how often?	18

26. Why do both ports and terminals have reporting requirements?	18
27. What visit information are vessel operators required to report to CARB?	18
28. What visit information are terminal operators required to report to CARB?	18
29. How long do vessels and terminal operators have to report visit information?	19
30. How do vessel and terminal operators submit visit reports to CARB?	19
31. How do I report an exception to the emission control requirements?.....	19
32. If a vessel shifts to a new berth, when does the 30-day reporting requirement begin - on the shift from one berth to another or when the vessel departs the terminal completely?	19
33. Will there be a required or standardized reporting form or system?.....	19
34. What are recordkeeping requirements for vessels, terminals, and operators of CAECS?.....	19
Vessel Operator Requirements	20
35. What is a vessel operator?.....	20
36. Which vessels are required to control emissions at berth?	20
37. Are vessel operators or fleets required to submit compliance plans to CARB?.....	20
38. Do bulk and general cargo vessel operators have any obligations under the 2020 Regulation?.....	20
39. What defines a vessel fleet and a vessel fleet operator?.....	21
40. What is required of regulated vessel operators?	21
41. What is the compliance checklist for vessel operators?	22
42. Can vessels change which compliance option they will be using?.....	22
43. Does a vessel need to reduce emissions if it is at a lay berth for repair or equipment installation?	22
Terminal Operator and Port Requirements	23
44. Do all California terminal operators have requirements under the 2020 Regulation?	23
45. What defines a berth?.....	23
46. What is required of affected terminal operators under the 2020 Regulation?.....	23
47. What is the compliance checklist for terminal operators?	24
48. Why do terminals and ports have obligations to reduce emissions if the vessels are the source of the emissions?	24
49. Do all California ports have requirements under the 2020 Regulation?	24
50. What are a port’s obligations under the 2020 Regulation?	24
51. Are ports required to submit annual Wharfinger data?	25
Port and Terminal Plans	25
52. What is a port plan?.....	25
53. What is a terminal plan?.....	25
54. Who is required to submit a port and/or terminal plan?	26

55. If a terminal’s berth operations are shared by multiple entities, who is responsible for submitting the port and/or terminal plan for the facility?	26
56. If a terminal operator operates more than one terminal at a port, does the operator need to submit a separate terminal plan for each terminal?	26
57. Should terminal operators and ports submit plans for a terminal that will not be in use by the implementation dates of the 2020 Regulation (i.e., the berths are being demolished or are no longer being used to berth regulated ocean-going vessels)?.....	26
58. Should ports provide information on behalf of a private marine terminal (if the port is not the landowner) as part of their port plan?.....	27
59. What does it mean to be a Responsible Official?	27
60. What information must be included in a port plan?	27
61. What information must be included in a terminal plan?	27
62. Why do Responsible Officials for both the terminal and port have to sign off on the division of responsibilities for port and terminal plans?	28
63. What kinds of berthing restrictions qualify as physical constraints in the 2020 Regulation (i.e., listed in terminal plan)?	28
64. When are port plans due?	29
65. When are terminal plans due?	29
66. If a port and/or terminal plan changes, is a revised plan needed?.....	29
67. What happens if port and/or terminal plan submission deadlines are not met?	30
68. What is the review process for port and terminal plans?	30
69. How does a regulated entity know if their port or terminal plan is approved?	30
70. Is there a CARB form available that can be used as a port or terminal plan?	30
71. How does a regulated entity submit a port or terminal plan?	31
CARB Approved Emissions Control Strategy (CAECS) Operator Requirements	31
72. Are there any fees associated with being a CAECS operator in the 2020 Regulation?.....	31
73. Who is considered a CAECS operator?	31
74. What is required of a CAECS operator under the 2020 Regulation?	31
75. When are CAECS test plans required to be submitted to CARB?	32
76. What is the default emission rate baseline used for auxiliary engines on oceangoing vessels?	32
77. What is the default emission rate baseline for ocean-going tanker vessel auxiliary boilers?	32
78. What are the emission rates that must be achieved for a CAECS to be approved for use for compliance with the 2020 Regulation?	32
79. Can a vessel achieve compliance with the 2020 Regulation by using cleaner technologies onboard?..	32
80. How can an applicant test for ROG emissions on alternative fuels?	33
81. How does CARB determine if a CAECS meets the grid-neutral requirement?	33
82. Where can a CAECS operator find the carbon intensity of standard fuel if the operator decides to use a fuel with a CARB Low Carbon Fuel Standard certified pathway to apply a reduction to CO2E?	33

83. What are the steps CAECS operators must follow to get an emissions reductions technology approved by CARB?.....	34
84. What are the steps CAECS operators must follow to modify a technology that was previously approved by CARB?.....	34
85. Can an identical system be approved without a CAECS operator having to submit a separate application?.....	34
86. What are CAECS operator reporting and recordkeeping obligations?.....	35
87. What do CAECS operators do if there is an equipment malfunction while servicing a vessel for compliance with the 2020 Regulation?.....	35
88. If a company is undergoing an Executive Order approval process for a CAECS, can vessels use that system for compliance while it is undergoing testing?	35

Exceptions..... 35

89. What circumstances qualify for an exception?	35
90. How does the 2020 Regulation apply when the military is purchasing cargo space on a commercial vessel?	36
91. How do I report use of a safety and emergency event exception?.....	37
92. How do I report use of a VIE/TIE?	37
93. How do I report use of the remediation fund?.....	37
94. How do I report use of an Innovative Concept?.....	37
95. What is “low activity”, and what is the trigger for a new terminal to become subject to the emission control requirements in the 2020 Regulation?.....	37
96. What is a safety and emergency event and how do they impact compliance?.....	38
97. Do utility power shutoffs count as a safety and emergency event?	38
98. How is compliance handled during a utility power shutoff?.....	39
99. How is compliance handled if a utility blackout causes equipment damage at the terminal and/or onboard a vessel?.....	39
100. What happens when labor delays prevent a vessel from connecting to shore power or another CAECS?	39
101. What happens if the operator/equipment for a scheduled CAECS does not show up?.....	40
102. What if there are delays in equipment installation or construction (including permitting or equipment delivery delays, etc.)?	40
103. Who is required to use a VIE/TIE or pay the remediation fund in the event a vessel cannot connect to a CAECS?	40

Shore Power Vessel Commissioning..... 40

104. What if a vessel has to commission shore power equipment during a visit to a regulated terminal?	40
105. Who is responsible for compliance if a vessel’s shore power equipment cannot be commissioned?	41
106. What happens if a vessel operator brings a vessel with an 11 kilovolt (kv) shore power connection to a regulated California marine terminal, but that terminal has only a 6.6kv connection?	41
107. What technical guidance is available on shore power for ro-ro and tanker vessels?	41

Vessel and Terminal Incident Events 42

108. What are Vessel Incident Events (VIE) and Terminal Incident Events (TIE)? 42

109. What is a vessel fleet? 42

110. How does a vessel fleet register with CARB? 43

111. How are VIEs/TIEs calculated? 43

112. How many VIEs/TIEs does a vessel fleet/terminal get each year? 43

113. When will vessel and terminal operators know how many VIEs or TIEs they have to use? 43

114. Are VIEs/TIEs port specific? 44

115. Do VIEs/TIEs expire? 44

116. Can terminal and vessel operators request additional VIEs/TIEs? 44

117. Can vessel or terminal operators request additional VIEs and TIEs for a current calendar year if a new vessel fleet starts calling a regulated California terminal mid-year? 45

118. How do vessel and terminal operators report use of a VIE or TIE? 46

119. How will the use of VIEs/TIEs be assessed for accuracy? 46

Remediation Fund 46

120. What is the remediation fund? 46

121. Who can use the remediation fund? 46

122. What circumstances would qualify for use of the remediation fund? 47

123. How does a regulated entity apply to use the remediation fund? 47

124. Do regulated entities need to request remediation for each individual vessel visit? 47

125. How is the remediation fund payment calculated? 48

126. What pollutants are used to calculate the remediation fund hourly rate? 48

127. How is the remediation fund hourly rate adjusted? 48

128. If a vessel does not have shore power and no alternative CAECS is available at a port, could the remediation fund be used for compliance? 49

Remediation Fund Administration 49

129. What is a remediation fund administrator? 49

130. How were the remediation fund administrators selected? 49

131. What are the obligations of a remediation fund administrator? 50

132. Can remediation funds be administered as part of an existing incentive program? 50

133. Can remediation funds be combined with other funds to complete a project? 51

134. What emission reductions are required for projects to be eligible for funding? 51

135. Where can projects be funded? 51

136. What is the timeline for administrators to fund incentive activities using the remediation funds that are collected? 52

137. What percentage of the remediation funds collected can the administrator retain for administration expenses?.....	52
138. Does the 10% for administration expenses come out of the total amount of funds collected or is it in addition to the amount of funds collected?	52
139. Does CARB intend to take a portion of the 10% for CARB’s administration process?.....	52
140. Who will be responsible for enforcement of the remediation fund?.....	52

Innovative Concepts 52

141. What is the Innovative Concepts Compliance Option?	52
142. What level of emissions reductions must be achieved for an Innovative Concept project?	53
143. Is there a geographical limit to where an Innovative Concept can reduce emissions?.....	53
144. What kind of projects would be considered an Innovative Concept?.....	53
145. Who can use the Innovative Concepts Compliance Option?.....	54
146. How does a regulated entity report use of an Innovative Concept project for compliance?	54
147. Will CARB accept Innovative Concept applications now that the submittal deadline has passed?.....	54
148. What is the review process for the Innovative Concept?	54
149. How does an applicant know if an Innovative Concept application has been approved?.....	55
150. Are there annual reporting requirements for an Innovative Concept project?	55
151. How does an applicant estimate the vessel emissions covered under an Innovative Concept?.....	56
152. How will CARB ensure that Innovative Concepts projects are achieving the required emissions reductions?.....	56
153. How long are Innovative Concept project approvals good for?.....	56
154. What could result in an Innovative Concept compliance period not being extended?.....	56
155. What could result in an Innovative Concept being revoked by CARB?	57
156. Can reductions from an Innovative Concept be banked and used at a later date?.....	57
157. Can an Innovative Concept project be modified after approval?.....	57
158. Can CARB incentive funding or other funding sources be used to pay for an Innovative Concept project?.....	57
159. Do visits using an Innovative Concept count towards a vessel fleet’s VIEs or terminal’s TIEs?	57
160. Can visits using an Innovative Concept qualify to use the remediation fund?	58

Incentives 58

161. What incentive funding is available to support reducing vessel emissions at berth?.....	58
162. Can an OGV using shore power qualify for the Low Carbon Fuel Standard (LCFS) credits?.....	58
163. Where can I find more information on these programs?	59

Purpose and Historical Context 59

164. How is the 2020 Regulation different from the 2007 At-Berth Regulation?.....	59
165. Do any requirements of the 2007 Regulation remain in effect past January 1, 2021?	59

166. When did the U.S. EPA grant approval for the 2020 At Berth Regulation?..... 60
167. What happened to the transition period that was outlined in the March 30, 2023 enforcement notice?60
168. What is required after the transition period ended? 60
169. How were updated VIEs and TIEs allocated at the end of the transition period? 61

Interim Evaluation 61

170. What is the Interim Evaluation?..... 61
171. What kind of information was analyzed during the Interim Evaluation? 61
172. How will CARB use the Interim Evaluation? 61
173. When was the Interim Evaluation made available for public review?..... 61

Introduction and Disclaimer

The California Air Resources Board (CARB) has developed this Frequently Asked Questions (FAQ) document specific to the new At Berth Regulation (“2020 Regulation” or “Regulation”), which appears in sections 93130 through 93130.22 of Title 17, California Code of Regulations.

Disclaimer: CARB staff has prepared this FAQ document to describe the regulatory requirements in a user-friendly format. All terms or phrases used in this document that are also defined in the 2020 Regulation follow the same definitions. Unlike the 2020 Regulation, this guidance document does not have the force of law. It is not intended to and cannot establish new mandatory requirements beyond those that are already in the 2020 Regulation, and it does not supplant, replace, or amend any of the legal requirements of the 2020 Regulation. Conversely, this document’s omission or truncation of regulatory requirements does not relieve any regulated entity (including a “responsible party” as defined in the 2020 Regulation) of their legal obligation to fully comply with all requirements of the 2020 Regulation and is not intended as a substitute for reading the 2020 Regulation.

CARB makes every effort to keep its documents up to date. However, CARB does not guarantee the accuracy of this document and shall not be responsible for any errors or omissions in content. CARB reserves the right to make changes without notice.

The latest revisions to this At Berth FAQ document were published on September 26, 2024. Both non-substantive and substantive changes have been made to the document for clarity and guidance to address additional questions that CARB staff have received since the publication of the original FAQ document in November 2021. CARB staff have revised this FAQ document to reflect that the remediation fund administrators have been selected, and the “transition period” has ended (see CARB’s [October 24, 2023 Enforcement Notice](#)).¹ The document has also been re-organized and edited for clarity, so some questions have been combined or moved to other sections. This new revision also contains additional guidance on the remediation fund option, and a few new questions (topics include military vessels, FRAMO pumps, CARB approval of identical or “duplicate” emission control systems, etc.). New questions are listed here: 5, 6, 7, 13, 14, 31, 85, 90, 107, 127, 136, 166, 167, 168, 169. Please note that changes are not marked in this version. The previous version of the FAQ document (dated November 2023) remains available on [CARB’s website](#), should stakeholders wish to compare the versions.²

You must ensure you have carefully reviewed and understand the 2020 Regulation, as reliance on this FAQ is not a substitute for understanding and complying with the

¹ https://ww2.arb.ca.gov/sites/default/files/2024-07/CARB_Ocean_Going_Vessel_OGV_At_Berth_Regulation_Authorization_Enforcement_Notice_ADA.pdf

² <https://ww2.arb.ca.gov/our-work/programs/ocean-going-vessels-berth-regulation/frequently-asked-questions-faq>

requirements of the 2020 Regulation. Conformance with the 2020 Regulation requirements is the responsibility of each regulated entity, as applicable.

General Questions & Applicability

1. What is this FAQ document, and how should I use it?

CARB staff has prepared this FAQ document to describe the regulatory requirements of the new 2020 Regulation in a user-friendly format. All terms or phrases used in this document that are also defined in the 2020 Regulation follow the same definitions. It is not intended to and cannot establish new mandatory requirements beyond those that are already in the 2020 Regulation, and it does not supplant, replace, or amend any of the legal requirements of the 2020 Regulation.

Conversely, this document is not intended as a substitute for reading the 2020 Regulation and does not relieve any regulated entity’s legal obligation to fully comply with all requirements of the 2020 Regulation, which appears at sections 93130 through 93130.22 of Title 17, California Code of Regulations. You must ensure you have carefully reviewed and understand the 2020 Regulation, as reliance on this FAQ is not a substitute for understanding and complying with the requirements of the 2020 Regulation.

2. Why did CARB develop the 2020 At Berth Regulation?

The purpose of the 2020 Regulation is to increase emissions reductions from ocean-going vessels (“vessels”) at berth in California ports to provide more air quality and health benefits to the people living and working in and around California’s busiest seaports (referred to in this FAQ document as “ports”). More information about the 2007 At Berth Regulation can be found in the *Purpose and Historical Context* section of this document.

3. Who must comply with the 2020 Regulation?

Vessel operators, terminal operators, ports, and third-party CARB-Approved Emissions Control Strategy (CAECS) operators are all subject to the 2020 Regulation. (The 2020 Regulation also includes provisions relating to remediation fund administrators and Innovative Concept applicants.)

The following table identifies the primary regulated entities. More information on requirements for regulated entities can be found in subsequent sections of this document: *Vessel Operator Requirements*, *Terminal Operator and Port Requirements*, and *CAECS Operator Requirements*.

Regulated Entity	Types
Vessel Operators*	All ocean-going vessels visiting any California marine terminal are subject to the 2020 Regulation; container, reefer, cruise, ro-ro, and tanker** vessels have emissions control requirements under the 2020 Regulation.

Regulated Entity	Types
Terminal Operators***	Any marine terminal in California receiving 20 or more visits from a regulated vessel type in any given calendar year.
California Ports	Any port with a regulated terminal is subject to the 2020 Regulation.
CAECS Operators	Any operator of a CAECS that is used to comply with the 2020 Regulation.

*All ocean-going vessels are subject to the 2020 Regulation, however, only container, refrigerated cargo, cruise, ro-ro, and tanker vessels have requirements to reduce emissions while at berth. For vessel types not subject to emissions control requirements (e.g. bulk and general cargo vessels), vessel operators must still meet visit reporting and opacity obligations as required by the 2020 Regulation.

**A tanker vessel is defined as 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. Gas carriers that carry solely liquified natural gas (LNG) or liquified petroleum gas (LPG) that meet the definition of an ocean-going vessel as defined in section 93130.2(b)(50) of the 2020 Regulation are required to comply with the regulatory requirements.

***Terminals that received fewer than 20 vessel visits per calendar year in 2021 and 2022 were initially considered “low activity terminals” and qualified for an exception from emissions control requirements per sections 93130.8(e) and 93130.10(a). If a low activity terminal sees an increase in vessel calls and has two consecutive years with 20 or more visits, they will no longer qualify as low activity and must comply with all control and planning requirements.

4. When do requirements for the 2020 Regulation begin?

The 2020 Regulation took effect on January 1, 2021.

Opacity requirements as specified in section 93130.6 of the 2020 Regulation took effect on January 1, 2023.

For more information on **emission control requirements**, see the [Emission Control Requirements](#) section of this document. Per section 93130.7, emission controls requirements for the 2020 Regulation phase in on the following dates:

Compliance Start Date	Vessel Type
January 1, 2023	Container and refrigerated cargo vessels
January 1, 2023	Cruise (passenger) vessels
January 1, 2025	Roll-on roll-off vessels
January 1, 2025	Tanker vessels that visit the Ports of Los Angeles or Long Beach
January 1, 2027	All remaining tanker vessels

For more information on **visit reporting requirements**, see the [Visit Reporting Requirements](#) section of this document. Reporting requirements took effect on

January 1, 2023 and were extended to May 1, 2023 per a [CARB Enforcement Notice](#).³ Reporting requirements apply to all vessel types regardless of whether a vessel or terminal has emissions control requirements. However, government and military vessels (as defined under Section 93130.2(b)(36)) are exempt from reporting and all other requirements of the 2020 Regulation.

A limited number of provisions in the 2020 Regulation, including certain provisions needed for planning, application, and approval purposes, began before January 1, 2023. These include, but are not limited to:

Provision	Location in Regulation	Effective Dates/ Description
CARB Approval of Emissions Control Strategies (CAECS)	Section 93130.5 (e) Application process (for a CAECS)	The provisions regarding applying for CAECS approval for compliance with the 2020 Regulation began January 1, 2021.
Terminal Plans	Section 93130.14 (a) Terminal Plans	Terminal plans were due for container, refrigerated cargo, cruise, ro-ro, and tanker terminals by December 1, 2021. Revised terminal plans are due for ro-ro and tanker terminals by: <ul style="list-style-type: none"> February 1, 2024, for all ro-ro terminals and all LA/LB tanker terminals February 1, 2026, for all other tanker terminals
Port Plans	Section 93130.14 (b) Port Plans	Port plans for container, refrigerated cargo, cruise, ro-ro, and tanker terminals were due December 1, 2021.
Interim Evaluation	Section 93130.14 (d) Interim evaluation for new technologies and applications	CARB staff published their analysis and findings in a report that was made available for public review on December 1, 2022.
Approval of Entities to Administer a Remediation Fund	Section 93130.16 Remediation Fund Administration	The requirements for CARB approval of entities to administer a Remediation Fund began January 1, 2021.
Application for Innovative Compliance Option	Section 93130.17 (b) Application and approval process (for the innovative concept compliance option)	Applications for container, refrigerated cargo, cruise, ro-ro, and tanker innovative concepts were due by December 1, 2021.

³
<https://ww2.arb.ca.gov/sites/default/files/2023-03/At%20Berth%20Enforcement%20Notice%20-%20March%2030%202023.pdf>

5. Are any vessels exempt from the requirements for the 2020 Regulation?

Per Section 93130.4, government and military vessels, as defined under Section 93130.2(b)(36), are exempt from reporting and all other requirements of the 2020 Regulation, though these vessels are encouraged to act in a manner consistent, as far as is reasonable and practicable, with the 2020 Regulation.

6. Are there any exceptions to the emission control requirements for the 2020 Regulation?

Yes, the 2020 Regulation provides for exceptions to the emission control requirements as described in sections 93130.4, 93130.8, and 93130.10. The exception must be reported in the visit information submitted to CARB. More information can be found in the *Exceptions* section of this document.

CARB understands that implementing emission control strategies may encounter delays. Delays do not waive, exempt, or otherwise excuse compliance obligations; regardless of delays, terminals must meet the 2020 Regulation requirements for reducing emissions at berth or utilize an alternative compliance option consistent with the compliance start dates set forth in the 2020 Regulation.

7. Who is responsible for measuring and reporting visible emissions?

CARB is responsible for enforcing opacity requirements under Section 93130.6. However, CARB is working with local Air Districts to create Memorandums of Understanding (MOU) that would give air districts the authority to enforce section 93130.6 of the 2020 Regulation as well. CARB learns about potential violations through inspections, tips from the public, data analysis, referrals from other agencies, mandatory emissions reporting, and voluntary disclosure. For more information, see CARB's *Enforcement Policy*.⁴ Members of the public can report opacity concerns to CARB via the *CalEPA Environmental Complaint System* or to their local air district.⁵ For more information, see CARB Environmental Justice Blog post "*How to Report an Air Pollution Complaint*".⁶

8. What should I do if I know I will be in violation of the 2020 Regulation?

CARB encourages regulated entities to work with CARB's Enforcement Division in advance of any known violations. Questions regarding compliance can be emailed to shorepower@arb.ca.gov.

⁴ <https://ww2.arb.ca.gov/resources/documents/enforcement-policy>

⁵ <https://calepa.my.salesforce-sites.com/complaints/Complaint>

⁶ <https://carbej.blogspot.com/2020/08/how-to-file-air-polution-complaints.html>

9. What is the policy or process for violations?

CARB follows its *Enforcement Penalty Policy* to resolve violations of any CARB regulation.⁷ CARB's Enforcement Division will conduct an investigation including collecting facts from the alleged violator and other involved parties. If a company is deemed to be in noncompliance, CARB's Enforcement Division may issue a Notice of Violation. The enforcement process allows a company to discuss the violation with CARB and give additional facts. To resolve a violation, CARB seeks penalties to remove any economic benefit obtained and to act as a deterrent for future violations. CARB also considers eight statutory factors that could potentially reduce the maximum violation penalty amount. *Settlement agreements for violations* are posted online for the public to view.⁸

10. What is the penalty for not complying with the 2020 Regulation?

Pursuant to the California Health and Safety Code and the 2020 Regulation, each failure to meet any requirement of the 2020 Regulation constitutes a single, separate violation. See section 93130.20 of the 2020 Regulation for additional information and relevant California Health and Safety Code references. Additionally, each item on the vessel, terminal, and CAECS checklists is considered a separate action. Section 43016 of the Health and Safety Code (HSC) states penalties shall not exceed \$37,500 for "each action" subject to this part of the code. The maximum penalty under HSC section 43016 increases by the *California Consumer Price Index (CPI)* each year.⁹ Also, each calendar day, or portion of, in which violations occur will be a separate daily violation. Therefore, if a visit occurred across two calendar days, it would be considered two days of violations for each action violated in the 2020 Regulation. All responsible parties may be held jointly and severally liable for noncompliance.

Emission Control Requirements

11. How are regulated entities expected to comply with the emission control requirements in the 2020 Regulation?

Per sections 93130.7(e)(3), 93130.9(d)(4), and 93130.12(b)(2), vessels must connect to shore power or another CARB-approved emission control strategy (CAECS) within two hours after "Ready to Work", and cease controlling emissions no earlier than one hour before "Pilot on Board", unless the visit qualifies for an exception under sections 93130.4, 93130.8 or 93130.10. More information about exceptions can be found in the *Exceptions* section of this document.

⁷ <https://ww2.arb.ca.gov/resources/documents/enforcement-policy>

⁸ <https://ww2.arb.ca.gov/our-work/programs/enforcement-policy-reports/enforcement-case-settlements>

⁹

<https://ww2.arb.ca.gov/our-work/programs/enforcement-policy-reports/california-consumer-price-index-increased-maximum>

12. Can the emission control time period be averaged?

No, the emission control time period cannot be averaged. If the vessel misses the connection or disconnection window described in sections 93130.7(e)(3), 93130.9(d)(4), and 93130.12(b)(2), such a situation might be eligible for use of the remediation fund (see section 93130.15(c)). More information can be found in the *Remediation Fund* section of this document.

13. Which emission sources on the vessel need to be controlled at berth?

- All auxiliary engines (see section 93130.7(b)). As defined in section 93130.2(b)(9), auxiliary engines include all engines on a vessel, as well as diesel electric engines, designed primarily to provide power for uses other than propulsion. Diesel electric engines, common on many cruise ships, power electric propulsion motors but also provide electricity to the vessel. Since the diesel electric engine is providing the hoteling load on the vessel, it is also considered an auxiliary engine in the 2020 Regulation. For clarification, auxiliary engines also include diesel engines that directly drive a process, including an engine used to directly drive a pump or as the power source for hydraulic pumps.
- Tanker auxiliary boilers on tanker vessels with steam driven pumps, unless the tanker is using shore power for their CAECS (see sections 93130.7(c) and 93130.5(d)(2)).

14. Are emissions from diesel mechanically driven FRAMO pumps subject to the 2020 Regulation?

Yes. The definition for auxiliary engine in the 2020 Regulation (section 93130.2(b)(9)) includes all engines on a vessel designed primarily to provide power for uses other than propulsion. This includes the diesel engine that is mechanically linked to a FRAMO pump. To use shore power to meet the requirements for vessel auxiliary engines in section 93130.7(b), vessels with FRAMO pumps would need to first electrify their FRAMO pumps. Alternatively, the vessel can implement another CARB-Approved Emission Control Strategy (CAECS) to reduce emissions to the level required by the 2020 Regulation, or could apply for the FRAMO pump engine itself to become a CAECS by submitting a test plan and application to CARB as described in section 93130.5 (i.e., test data would need to show that emissions from the FRAMO pump engine meet the standards in section 93130.5(d)(1)).

15. Are emissions from the tanker inert gas system subject to the 2020 Regulation?

No, the emissions from the inert gas system (IGS) are excluded from the requirements of the 2020 Regulation. The IGS is a safety system, required by the International Maritime Organization, on tanker vessels used during the offloading of product. Tanker vessels either divert exhaust from the auxiliary boilers or use a dedicated inert gas generator to create a non-explosive, inert atmosphere inside the cargo tanks. Inert gas systems that use boiler exhaust allow for some of the diverted, partially untreated exhaust to be emitted to the

atmosphere. Some of the emissions impact is reduced when the inert gas passes through a scrubber removing particulate matter (PM) and sulfur dioxide (SO₂). CARB staff's current understanding is that capturing and controlling the inert gas is difficult with current CAECS. This is due to the saturation and cooling of the gas during the scrubbing process as well as the distance of the IGS exhaust stack from the auxiliary engine stack.

CARB staff learned more information about the tanker IGS during the implementation phase of the 2020 Regulation. The 2020 Regulation requires that emissions from tanker boilers need to be controlled if the vessel is not plugged into shore power, however, the inert gas exhaust process was not fully evaluated during the rulemaking process.

CARB staff will continue to assess the emissions impact of the IGS and variability in systems between different vessels. Additional evaluation is necessary to gain information on the number of vessels using IGS systems that utilize boiler exhaust, activity information, actual volume of exhaust diverted, and efficiency of the IGS scrubber. CARB staff is committed to further examine the impacts of these emissions in more detail and will explore the potential to control IGS emissions through a future rulemaking.

16. What is a CARB Approved Emission Control Strategy?

A CARB approved emission control strategy or "CAECS" is an emission control strategy that has been approved by CARB for use to comply with the 2020 Regulation. (See section 93130.2(b)(16).) Potential CAECS technologies can include, but are not limited to, capture and control systems, batteries, fuel cells, alternative fuels, etc. Regulated entities can apply for CARB approval of an emission control strategy by submitting a test plan and application to CARB as detailed in section 93130.5 of the 2020 Regulation. There is no specified time limit or deadlines for any party to apply for CARB approval of an emission control strategy. For more information on CAECS operator requirements, please see the [CAECS Operator Requirements](#) section of this document.

17. What emission control strategies are currently CARB approved?

Several capture and control systems are currently approved for use with the 2020 Regulation, and [Executive Orders](#) for these systems can be viewed on CARB's website.¹⁰ If a vessel or terminal wishes to utilize a strategy for compliance with the 2020 Regulation that is not already approved for use (e.g., batteries, fuel cells, alternative fuels, etc.), they must apply for CARB approval of that strategy as a CAECS by following the instructions in section 93130.5 of the 2020 Regulation.

Shore power is considered the "gold standard" in reducing emissions from ocean-going vessels in California and does not require any additional CARB approval to use for compliance with the 2020 Regulation.

¹⁰ <https://ww2.arb.ca.gov/berth-regulation-executive-orders>

18. If a vessel has shore power, is it required to use shore power during a visit to a regulated terminal?

Yes, if a shore power capable vessel visits a terminal where the port or terminal has commissioned that 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, then that vessel must connect to shore power in order to comply with the 2020 Regulation per section 93130.7(a). This requirement is designed to encourage usage of shore power while at berth in order to maximize emissions reductions during a visit, while also allowing for a better return on investment in shore power equipment due to increased usage.

19. Can a vessel without shore power visit California? What are the compliance options for a non-shore power vessel?

Yes, a vessel without shore power can visit California. Vessels calling California ports are expected to have a compliance option identified when scheduling port calls. The vessel could use a CAECS to control emissions (i.e., capture and control system) which should be coordinated with the terminal at least seven days before arrival (sections 93130.7(e)(1) and 93130.9(d)(1)), or the visit may be able to use an exception to emission control requirements. More information can be found in the *Exceptions* section of this document.

20. Does a vessel have to use a previously approved CAECS to comply with the 2020 Regulation? Could a vessel use onboard technologies?

There is a built-in pathway in the 2020 Regulation that allows for vessels to use solutions other than shore power or capture and control systems. The 2020 Regulation requires vessels to use a CAECS while at berth. Shore power is considered a CAECS, as are the barge-based capture and control systems that have been issued a CARB Executive Order. However, any solution that can meet the emissions standards laid out in section 93130.5(d) may apply for approval as a CAECS. CARB staff designed the 2020 Regulation in such a way that vessel-based solutions could be used. For example, if a vessel intends to run on liquefied natural gas (LNG) and can provide testing data showing the vessel's emissions meet or exceed the standards provided by section 93130.5(d)(1) of the 2020 Regulation, then that could potentially be approved as a CAECS, and LNG could then be used as a compliance pathway for vessels with the same engine class. In this case, the vessel operator would also need to comply with the CAECS operator requirements under section 93130.12. More information can be found in the *CAECS Operator Requirements* section of this document.

21. What if a vessel cannot control emissions while at berth?

If the visit with uncontrolled emissions qualifies for an exception to emission control requirements as provided under sections 93130.4, 93130.8, and 93130.10, the visit may be considered compliant. If the reason is due to a vessel safety or emergency event as set forth

in section 93130.2(b)(70), then the vessel operator could apply to use a safety or emergency event exception. A vessel could also comply using a VIE or TIE, or the remediation fund option if it met the requirements under section 93130.15. If none of the exceptions in sections 93130.8 or 93130.10 of the 2020 Regulation apply to the visit, it will be referred to CARB's Enforcement Division, and may be subject to enforcement action. More information on exceptions can be found in the [Exceptions](#) section of this document, and more information on enforcement can be found in [General Questions & Applicability](#).

22. Who is responsible for providing shore-side emissions control equipment and/or infrastructure?

Vessel operators, terminal operators, ports, and CAECS operators have shared obligations for reducing at berth emissions. See section 93130.18 for a summary of responsibilities. 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 (section 93130.9(b)). Generally, terminals and ports will be responsible for installing shore-side emissions control equipment and/or infrastructure, while vessel operators are responsible for installing any necessary equipment onboard a vessel. The responsible party for shore-side installations will depend on how the terminal and port responsibilities are described in the terminal and port plans and how they are delineated in other agreements such as lease agreements. More information can be found in the [Port and Terminal Plans](#) section of this document.

23. Can regulated entities rely on commercial arrangements with third-party CAECS operators to meet the emission control requirements of the 2020 Regulation?

A regulated entity is free to utilize a third-party operated CAECS for compliance with the 2020 Regulation as long as the system has received CARB approval per section 93130.5. There are regulatory obligations for CAECS operators (including third-party providers) as described in section 93130.12, and not fulfilling the obligations of the 2020 Regulation may result in enforcement actions against the CAECS operator. However, that does not necessarily excuse vessel and terminal operators from their obligation to reduce emissions from vessels at berth during regulated visits. Regulated entities should ensure that the CAECS they have selected for use for compliance with the 2020 Regulation is a reliable and appropriate pathway for their own individual operations. More information on requirements for each regulated entity (vessel, terminal/port, CAECS operator) can be found in the [Vessel Operator Requirements](#), [Terminal Operator and Port Requirements](#), and [CAECS Operator Requirements](#) sections of this document.

Visit Reporting Requirements

24. What defines a "visit"?

As set forth in section 93130.2(b)(91), a visit is defined as the time period from when the vessel is "Ready to Work" to "Pilot on Board". A vessel is considered "Ready to Work" when

it 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, as set forth in section 93130.2(b)(63). "Pilot on Board" occurs when the vessel's pilot has boarded the vessel to assume navigational control to prepare for vessel departure, as set forth in section 93130.2(b)(58). A vessel shift from one terminal to another or from one berth to another berth within the same terminal is considered a new visit at each subsequent berth for the purposes of the 2020 Regulation, as set forth in section 93130.2(b)(91)

25. Who is required to report and how often?

As set forth in sections 93130.7(e)(4), 93130.9(d)(5), and 93130.12(b)(3), vessel and terminal operators and CAECS operators are responsible for reporting visit information for each visit made by a regulated vessel to a regulated marine terminal. These sections of the 2020 Regulation require that visit reports include certain visit information and be submitted to CARB within 30 calendar days of each vessel's departure. The 2020 Regulation's reporting requirements apply to all vessel types, regardless of whether a regulated vessel or terminal has emissions control requirements. Separately, as per section 93130.13(d), ports are responsible for providing wharfing data on an annual basis.

26. Why do both ports and terminals have reporting requirements?

Because both the terminal and vessel operators have compliance obligations, reporting by each party is essential to providing accurate information in order to determine if compliance obligations are met without relying on the accuracy of a secondary entity reporting the information. Requiring each party to provide original information is intended to allow CARB staff to cross-check information and ensure that the reporting details are correct. An entity may designate another party to report on their behalf (such as a terminal giving reporting rights to a port), but the reporting entity has the ultimate responsibility to ensure the accuracy of information provided.

27. What visit information are vessel operators required to report to CARB?

ALL vessel operators (or other authorized party) visiting any California port or marine terminal (including a low-use or exempt berth) must report the information set forth in section 93130.7(e)(4) to CARB within 30 calendar days of each vessel's departure.

Visit reporting templates are available online.¹¹

28. What visit information are terminal operators required to report to CARB?

ALL California regulated terminal operators (or other authorized party) must report the information set forth in section 93130.9(d)(5) to CARB within 30 calendar days of each vessel's departure.

¹¹ <https://ww2.arb.ca.gov/berth-reporting-templates>

29. How long do vessels and terminal operators have to report visit information?

Vessel operators, terminal operators, and CAECS operators must submit visit reports to CARB within 30 calendar days of each vessel's departure. See sections 93130.7(e)(4), section 93130.9(d)(5), and 93130.12(b)(3), respectively.

30. How do vessel and terminal operators submit visit reports to CARB?

Visit reports can be submitted directly to CARB via electronic or written submission, as detailed in section 93130.19 of the 2020 Regulation. Electronic submissions may be sent to shorepower@arb.ca.gov.

31. How do I report an exception to the emission control requirements?

Vessel visits that claim an exception to the emission control requirements under sections 93130.4, 93130.8, or 93130.10 (safety and emergency events, bulk and general cargo vessels, vessel commissioning, research visits, low activity terminals, Vessel Incident Events (VIEs), Terminal Incident Events (TIEs), remediation fund, Innovative Concept) are still required to submit a visit report. The visit report must list which exception is claimed and provide information or documents as needed to support the claim. More information on how to report specific exceptions can be found in the *Exceptions* section of this document.

32. If a vessel shifts to a new berth, when does the 30-day reporting requirement begin - on the shift from one berth to another or when the vessel departs the terminal completely?

The 30-day reporting requirement begins when a vessel shifts to a new berth (see section 93130.7(e)(4)(l) of the 2020 Regulation). A berth shift means that a vessel unties from one berth and ties to a new berth for any reason. In the 2020 Regulation, a vessel move from one berth to another berth is considered a new visit at each subsequent berth. For example, if a vessel shifts from berth A to berth B, the visit report for berth A should be sent within 30 days of the vessel's departure from berth A. A separate visit report should then be sent for the vessel's visit to berth B.

33. Will there be a required or standardized reporting form or system?

There is no required or standardized way that regulated entities must follow when submitting visit information to CARB. However, CARB staff provided a standardized template to assist regulated entities with reporting. Please see the link to the reporting templates at: [At Berth Reporting Templates | California Air Resources Board](#).

34. What are recordkeeping requirements for vessels, terminals, and operators of CAECS?

Vessel, terminal, and CAECS operators must keep records for a minimum of five years as provided by sections 93130.7(g), 93130.9(g), and 93130.5(k) and 93130.12(e), respectively.

Vessel Operator Requirements

35. What is a vessel operator?

A vessel operator is any person who is in direct control of the vessel. For the purpose of the 2020 Regulation, the person in “direct control” is the person who decides where a vessel is to call and is considered a responsible party, as set forth in section 93130.2(b)(87).

There is potential for the vessel owner, charterer, and shipper to each be considered a vessel operator, and, if so, all could have a responsibility to meet the requirements of the 2020 Regulation. In many cases, the owner of the vessel is not in control of where a vessel goes when chartered, and the shipper is not controlling the vessel’s movement but instead taking space on a planned vessel route. In general, the charterer is the one that decides the routes and brings the vessels to California. However, depending on the relationship between the owner, charterer, and shipper, the owner or shipper may also be considered the operator if they have direct control over the vessel’s decision to call a California port or marine terminal.

36. Which vessels are required to control emissions at berth?

All container, refrigerated cargo, cruise, ro-ro, and tanker vessels are required to control emissions at berth, unless the vessel is visiting a berth that is at a *low activity* terminal, as set forth in section 93130.10(a), or if another exception applies. More information on the low activity terminal exception and other exceptions can be found in the *Exceptions* section of this document.

37. Are vessel operators or fleets required to submit compliance plans to CARB?

No. The 2020 Regulation does not require any plan submittals for vessel operators or fleets. CARB does, however, encourage vessel operators to coordinate with the operators of the terminals they intend to call in order to make sure their strategies for reducing emissions are aligned.

38. Do bulk and general cargo vessel operators have any obligations under the 2020 Regulation?

Bulk and general cargo vessels have visit reporting requirements (section 93130.7(e)(4)), and all bulk and general cargo vessels must comply with opacity requirements (section 93130.6). Bulk and general cargo vessels do not have emissions control requirements under the 2020 Regulation. CARB published an *Interim Evaluation Report* in 2022, as required per section 93130.14(d).¹² This report evaluated the control technologies for use with bulk and

¹²

https://ww2.arb.ca.gov/sites/default/files/2022-12/At%20Berth%20Interim%20Evaluation%20Report_Final_Re-mediated.pdf

general cargo vessels and the feasibility for potential control requirements for these vessel types.

Regarding the inclusion of bulk/general cargo vessels into the 2020 Regulation, CARB staff did not find that technologies or vessel operations have significantly changed such that controlling emissions from these vessel types would be any more cost effective than what was shown with the rulemaking documents published for the 2020 Regulation. However, CARB does recognize the potential impacts these vessels may have on both air quality and public health. As noted in *Feasibility of Control Requirements for Bulk and General Cargo Vessels* of the Report, emissions from bulk vessels are projected to grow from increased activity, confirming the need to further explore emission reduction strategies for bulk vessels. In addition, despite the challenges, industry has signaled emission reductions are possible by including controlling emissions from bulk vessels as Innovative Concepts to achieve early, equivalent, or additional emission reductions from vessels at berth. Further investigation into bulk and general cargo vessels was recommended to determine the most effective method to reduce emissions from these vessel types.

39. What defines a vessel fleet and a vessel fleet operator?

A vessel fleet under the 2020 Regulation is different from a vessel fleet under the 2007 Regulation. Under the 2020 Regulation, there are no fleet-based compliance requirements. Rather, a vessel fleet is defined as a group of vessels of the same vessel type at a single port or marine terminal that have agreed to utilize their combined Vessel Incident Events (VIE) and are registered with CARB by a person who is designated as that fleet's representative, as set forth in section 93130.2(b)(32).

A fleet operator is any person who has the authority to authorize the use of a VIE for a visit by a vessel in the fleet. CARB does not dictate who the fleet operator is (it could be one person for one shipping company or a representative covering multiple companies that have agreed to pool their VIEs) as long as they have submitted to CARB in writing their request to register themselves as the operator for their specific fleet. A fleet operator does not have to provide a list of vessels registered in their fleet; rather, each vessel should report the fleet that it belongs to for each visit. Additionally, if a VIE is used for a visit, the fleet operator must confirm to CARB that the VIE is approved for use for that visit. For more information on VIEs, please see the *Vessel and Terminal Incident Events* section of this document.

40. What is required of regulated vessel operators?

All regulated vessel operators are required to reduce auxiliary engine emissions to the performance standards set forth in section 93130.5(d)(1) of the 2020 Regulation through use of a CAECS during each visit to a terminal unless the visit qualifies for an exception. Additionally, vessel operators of tanker vessels with steam driven pumps also are required to reduce auxiliary boiler emissions (unless the tanker is using shore power to reduce emissions from auxiliary engines) to the performance standards set forth in section 93130.5(d)(2) of the 2020 Regulation through a CAECS during each visit to a

terminal, unless the visit qualifies for an exception. More information on exceptions, including VIEs/TIEs, low activity terminals, remediation fund, etc., can be found in the [Exceptions](#) section of this document.

If a vessel operator has a shore power equipped vessel, they are required to plug into 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 (section 93130.7(a)).

If a vessel operator has on-board control strategies that are operated solely on the vessel, then they are required to confirm in writing with the terminal operator that the equipment is operational and will be used, prior to the vessel's arrival at the terminal's berth (section 93130.7(d)).

All vessel operators are also required to meet the opacity requirements in section 93130.6 and report visit information. For more detail on what information needs to be reported, see the [Reporting Requirements](#) section of this document.

41. What is the compliance checklist for vessel operators?

The compliance checklist for vessel operators is a checklist of items that vessel operators need to complete to ensure compliance with the 2020 Regulation. The checklist can be found in section 93130.7(e) of the 2020 Regulation.

42. Can vessels change which compliance option they will be using?

Yes. There is no requirement that a vessel has to commit to only one method of compliance. However, if a shipping line, terminal, or port wanted to pursue an Innovative Concept project in lieu of using a CAECS to directly reduce emissions from each visit, then that project application needed to be submitted by December 1, 2021. No further applications for Innovative Concepts will be accepted by CARB now that the deadline for submittal has passed. A CAECS, however, can be applied for at any time. If a shipping line plans to use shore power now, but decides, for example, to develop a fleet of LNG vessels in a few years, then there would be no issue with the shipping line submitting testing data and an application to seek CAECS approval, if it can be demonstrated that the CAECS meets the emission reduction requirements in 93130.5(d)(1) of the 2020 Regulation.

43. Does a vessel need to reduce emissions if it is at a lay berth for repair or equipment installation?

If the "lay" or "repair" berth is at a regulated terminal, then yes, the vessel will have to control emissions during the length of its stay or use an exception (VIE/TIE, remediation fund, etc.) for compliance. Only one VIE/TIE would need to be used for the visit, as long as the vessel remained at that berth for the entirety of its stay. If the lay berth is located at a terminal that

falls below the 20-visit threshold, then that visit would not have emissions control requirements under the requirements of the 2020 Regulation.

Terminal Operator and Port Requirements

44. Do all California terminal operators have requirements under the 2020 Regulation?

Yes, all terminal operators who receive ocean-going vessels at California berths are subject to regulatory requirements. Opacity and visit reporting requirements set forth in sections 93130.6 and 93130.7(e)(4), respectively, pertain to all terminals, regardless of the number of visits or vessel types received (unless a terminal exclusively receives visits from government or military vessels as defined in section 93130.2(b)(36), since these vessels are exempt from all requirements per section 93130.4(b)).

Emission control requirements set forth in section 93130.9 pertain to any terminals that receive ocean-going vessels in California, unless that terminal is subject to certain exceptions provided in section 93130.10. If a terminal operates as a “low activity” terminal in accordance with section 93130.10(a), then the terminal does not have emissions control requirements. See the *Exceptions* section of this document for more information on the low activity exception.

45. What defines a berth?

For the purposes of the 2020 Regulation, as set forth in section 93130.2(b)(10), a “berth” is defined as a vessel's allotted place at a wharf, pier, or dock. This does not include anchorages such as at the offshore tanker terminal at El Segundo, or where passenger vessels tender at anchor such as at Santa Barbara, or Catalina.

46. What is required of affected terminal operators under the 2020 Regulation?

Operators of terminals receiving 20 or more visits from container, reefer, cruise, ro-ro, and/or tanker vessels in a calendar year must ensure that each berth has a CAECS available for use for each regulated vessel visit (sections 93130.9(a)-(c)) and that regulated vessels use shore power or another CAECS for the duration of their visit (section 93130.9(d)(4)). Regulated terminal operators must follow the checklist in section 93130.9(d), which includes reporting visit information for each visit for all vessel visits, even those visits without emissions reduction obligations. Lastly, terminal operators were required to provide CARB with terminal plans by December 1, 2021, demonstrating how the terminal intends to comply with the 2020 Regulation. All terminal plans and CARB's responses to each plan are posted to *CARB's webpage for terminal and port plan submissions*.¹³

¹³ <https://ww2.arb.ca.gov/terminal-and-port-plan-submissions>

All terminal operators are also required to report visit information for each vessel visit, even those terminals receiving less than 20 visits per calendar year. For more detail on what information needs to be reported, see the [Reporting Requirements](#) section of this document.

47. What is the compliance checklist for terminal operators?

The compliance checklist for terminal operators is a checklist of items that terminal operators need to complete to ensure compliance with the 2020 Regulation. The checklist can be found in section 93130.9(d) of the 2020 Regulation.

48. Why do terminals and ports have obligations to reduce emissions if the vessels are the source of the emissions?

Terminal and port operators are responsible for vessel emissions while the vessels are located at the operator's terminals and ports. The process of reducing at-berth emissions through shore power or other CAECS typically involves both parties to successfully reduce emissions. Therefore, both entities share obligations under the 2020 Regulation to ensure that reductions occur.

49. Do all California ports have requirements under the 2020 Regulation?

Yes, all ports in California that receive ocean-going vessels at their berths or terminals are subject to regulatory requirements. If a port operates terminals that all meet the definition of "low activity terminal" as provided in section 93130.10(a) of the 2020 Regulation, then that port will not have emissions control requirements. However, opacity requirements set forth in section 93130.6 and visit reporting requirements set forth in section 93130.9(d)(5) pertain to all terminals, regardless of the number of visits or vessel types received (unless a terminal exclusively receives visits from government or military vessels as defined in section 93130.2(b)(36), since these vessels are exempt from all requirements per section 93130.4(b)).

50. What are a port's obligations under the 2020 Regulation?

Port requirements are described in section 93130.13 of the 2020 Regulation. Ports with regulated terminals must ensure that each regulated terminal has the infrastructure needed to reduce emissions from each regulated vessel visiting every berth at that terminal. Ports are responsible for any equipment or necessary infrastructure that is beyond a terminal operator's contractual ability to provide (i.e., vault installations if the port is responsible for all wharf modifications). If a terminal operator and/or vessel operator elects to purchase, install, and use CAECS equipment that does not need port assistance or infrastructure to operate in compliance with the 2020 Regulation, then the port has no additional responsibility for that equipment.

Ports with regulated terminals must also provide CARB with port plans as set forth in section 93130.14(b), demonstrating the actions the port intends to take to ensure their

terminals can comply by the compliance dates in the 2020 Regulation. These port plans are detailed in the *Port and Terminal Plans* section of this document and include identification of terminal and port responsibilities. Ports are responsible for vessel emissions reductions at a terminal to the extent they are specified in the division of responsibilities included in the port's plan. All port and terminal plans, and CARB's responses to each plan, are posted to *CARB's webpage for terminal and port plan submissions*.¹⁴

If a port has only low activity terminals or berths, there is no emissions control obligations as set forth in section 93130.10(a); however, the port and terminal still have an obligation to meet the opacity requirements in section 93130.6 and report visit information and annual Wharfinger data as set forth in sections 93130.9(d)(5) and 93130.13(d), respectively.

51. Are ports required to submit annual Wharfinger data?

Yes, all operators of a public or private California port or independent marine terminal must provide Wharfinger data to CARB's Executive Office annually by January 31, regardless of visit activity. Wharfinger information required to be reported for each visit to the port is set forth in section 93130.13(d).

Port and Terminal Plans

52. What is a port plan?

A port plan is a planning document that must be submitted to CARB discussing how a regulated terminal intends to comply with the requirements of the 2020 Regulation. As set forth in section 93130.14(b) of the 2020 Regulation, port plans must include a discussion of any necessary infrastructure modifications needed to ensure that each regulated terminal at that port is capable of achieving the required emissions reductions by the implementation dates established for each regulated vessel type.

53. What is a terminal plan?

Similarly, a terminal plan is a planning document that must be submitted to CARB by regulated marine terminal operators discussing how a regulated terminal intends to comply with the requirements of the 2020 Regulation. As set forth in section 93130.14(a) of the 2020 Regulation, terminal plans must include discussion of any necessary infrastructure modifications needed to ensure that each berth is capable of achieving the required emissions reductions by the implementation dates established for each regulated vessel type.

¹⁴ <https://ww2.arb.ca.gov/terminal-and-port-plan-submissions>

54. Who is required to submit a port and/or terminal plan?

All terminals receiving 20 or more visits in a calendar year from a regulated vessel type must submit a terminal plan, and all ports with regulated terminals must submit a port plan. Per sections 93130.14(a)(4) and (b)(4), all port and terminal plans must be signed by the applicable port's and terminal's Responsible Official under penalty of perjury and are subject to verification by CARB staff.

As an alternative, ports may submit plans for their terminal operators if both parties agree to that strategy (sections 93130.14(a)(1) and (b)(1)).

55. If a terminal's berth operations are shared by multiple entities, who is responsible for submitting the port and/or terminal plan for the facility?

Each terminal operator or port entity that has any level of responsibility for compliance with the 2020 Regulation should be involved in the drafting of a port and/or terminal plan for the relevant berths. The 2020 Regulation language allows for flexibility for the plans to be submitted individually (one by each entity) or the Port may submit terminal plans on behalf of their terminal operators, as long as all have all signed off on agreeing to the plan.

Per sections 93130.14(a)(3)(G) and (b)(3)(G), the plan should be sure to delineate the roles/responsibilities for each entity that plays a role in compliance for shoreside operations. For example, the plan should specify which party (terminal operator or port) will be responsible for equipment repair/maintenance, labor arrangement, infrastructure upgrades/modification, etc. to ensure there's no question when it comes to determining compliance once implementation begins. If the port has no responsibilities (as in the case at some private oil terminals), then this should be clearly stated and agreed to in the port and terminal plans by all parties.

56. If a terminal operator operates more than one terminal at a port, does the operator need to submit a separate terminal plan for each terminal?

Yes, if a terminal operates two terminals under different leases, a separate terminal plan must be submitted to CARB for each terminal, regardless of any shared equipment or similar operations. The port can turn in one plan for both terminals, but the division of responsibilities between the port and each terminal operator must be specified.

57. Should terminal operators and ports submit plans for a terminal that will not be in use by the implementation dates of the 2020 Regulation (i.e., the berths are being demolished or are no longer being used to berth regulated ocean-going vessels)?

If the plan is to demolish a berth(s), the company operating that terminal should advise CARB of their intentions by updating their terminal plan to inform CARB staff that they plan to demolish the berth and attest that it will not be used to service customers. Alternatively, the port can include this in their port plan, as long as all companies in charge of operating

that facility endorses the plan by providing signed authorization on the terminal's submission to CARB.

58. Should ports provide information on behalf of a private marine terminal (if the port is not the landowner) as part of their port plan?

A port should consider if there are any aspects of the port's relationship with the private marine terminal that are not independent of the port's operations. For example, if the terminal is dependent on the port for any infrastructure, such as power lines or substations, that information must be clear in the Port plan. Even if the answer is no, and a terminal truly operates 100% independently from a port, it would be best to include the terminal in the Port's plan with a statement that the terminal is privately owned and operates as an independent marine terminal that will be submitting their own plan independently of the Port. To ensure that there is no confusion, it would be best if the private terminal stated the same in their own terminal plan. This would ensure a clear delineation of responsibility for that terminal.

59. What does it mean to be a Responsible Official?

A Responsible Official is defined in section 93130.2(b)(67) as 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 the 2020 Regulation. This could be a designated person(s) on staff at the port or terminal or a designated vessel operator. Ports, terminals, and vessel operators may identify any number of persons as a Responsible Official.

60. What information must be included in a port plan?

Port plans must include a list of any anticipated necessary infrastructure modifications needed to reduce emissions from ocean-going vessels at a terminal by the required implementation dates for the vessel type(s) received by that terminal. For each compliance strategy implemented at a berth, the plan must include the information set forth in section 93130.14(b)(3).

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 of the terminal operator and the port, which is required to be submitted as part of a terminal plan, between must be signed by the terminal's Responsible Official.

61. What information must be included in a terminal plan?

For each emissions reduction strategy that the terminal intends to use for compliance, the terminal plan must include the information set forth in section 93130.14(a)(3). Terminal plans must include a list of any anticipated necessary infrastructure modifications needed to reduce emissions from ocean-going vessels at a terminal by the required implementation dates for the vessel type(s) received by that terminal.

A terminal operator claiming that a physical and/or operational constraint will delay its ability to implement its preferred CAECS to achieve emissions reductions from vessels at berth 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.

Per section 93130.14(a)(4), all terminal plans must 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 of the terminal operator and the port, which is required to be submitted as part of a terminal plan, must be signed by the port's Responsible Official.

62. Why do Responsible Officials for both the terminal and port have to sign off on the division of responsibilities for port and terminal plans?

Regardless of whether the terminal plan is submitted independently or as part of the port's plan, the division of responsibilities between the terminal and port (required as part of the terminal plan, see section 93130.14(a)(4) of the 2020 Regulation) must be signed by the port's Responsible Official (as defined in section 93130.2(b)(67)). This is to ensure that all parties have the same understanding about the role each entity plays in compliance, which will assist CARB's Enforcement Division in determining responsibility in the case of noncompliance.

CARB staff recommends that terminal operators communicate with their port officials (and vice versa) in development of their terminal plan to ensure that both parties support and are in agreement with the terminal's intended path to compliance. If the terminal is independent of the port (i.e., the port is not obligated to provide any support for infrastructure, utilities, etc.), then the terminal plan should simply state that and have the port sign off on that information.

63. What kinds of berthing restrictions qualify as physical constraints in the 2020 Regulation (i.e., listed in terminal plan)?

A physical constraint at a terminal is defined in section 93130.2(b)(57) as "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". If a terminal operator claims that a physical constraint will delay its ability to implement its preferred CARB approved control strategy, the terminal operator must inform CARB of this constraint as part of their terminal plan. Per section 93130.14(a)(3)(H), the terminal must also include with its terminal plan a technical feasibility study that evaluates if there are any other emission control options that could be implemented more quickly at the terminal. If the terminal is unable to implement a strategy to control vessel emissions due to an unavoidable physical constraint, then they may be eligible to use the remediation fund to comply with the 2020 Regulation under the qualifying circumstance described in section 93130.15(b)(5).

64. When are port plans due?

Port operators were required to submit port plans to CARB by December 1, 2021. CARB has reviewed and responded to all received port plans, either to confirm completeness of the plan(s) or to request revisions. CARB has also posted all port plans and CARB's responses to [CARB's webpage for terminal and port plan submissions](https://ww2.arb.ca.gov/terminal-and-port-plan-submissions).¹⁵

Ports must also submit an updated plan by July 1 the following year after any new terminal at the port exceeds the annual visit threshold, even if the terminal does not anticipate remaining at or above the 20-visit threshold for a second consecutive year (section 93130.14(b)(2)(E)).

65. When are terminal plans due?

Terminal operators were required to submit terminal plans to CARB by December 1, 2021. CARB has reviewed and responded to all received terminal plans, either to confirm completeness of the plan(s) or to request revisions. CARB has also posted all terminal plans and CARB's responses to [CARB's webpage for terminal and port plan submissions](https://ww2.arb.ca.gov/terminal-and-port-plan-submissions).¹⁶

Ro-ro and tanker terminals are required to submit updated terminal plans as set forth in section 93130.14(a)(2)(F), which must reflect any changes to the terminal since the initial plan:

- Ro-ro terminals: February 1, 2024.
- LA/LB tanker terminals: February 1, 2024.
- All other tanker terminals: February 1, 2026.

"Low activity" terminals that exceed the 20-visit threshold are required to submit a terminal plan by July 1 the following year, even if they do not anticipate remaining at or above the 20-visit threshold for a second consecutive year (section 93130.14(a)(2)(E)).

66. If a port and/or terminal plan changes, is a revised plan needed?

Submitting a revised port and/or terminal plan is not required by the 2020 Regulation. However, if a port or terminal's main compliance strategy for the 2020 Regulation changes significantly or if the new strategy changes how the port and terminal responsibilities are defined, it would be important for the port and terminal to submit revised plans to ensure that CARB's Enforcement Division has the most updated information in the event CARB is required to investigate a non-compliant situation.

¹⁵ <https://ww2.arb.ca.gov/terminal-and-port-plan-submissions>

¹⁶ <https://ww2.arb.ca.gov/terminal-and-port-plan-submissions>

67. What happens if port and/or terminal plan submission deadlines are not met?

Any party subject to the 2020 Regulation who fails to comply with any provision or requirement in the 2020 Regulation is subject to enforcement action. See section 93130.20 of the 2020 Regulation for additional information and relevant California Health and Safety Code references.

Additionally, without a port and/or terminal plan on file, CARB's Enforcement Division will have no proof either party was intending to comply with the 2020 Regulation, and no guidance as to the division of responsibilities between port and terminal operators. As such, both parties may be held liable for any failure to reduce emissions from a regulated vessel visit.

Most ports and terminals have already submitted their plans, but there are a few deadlines that are still outstanding, per section 93130.14(a)(2)(F):

- Updated plans from tanker terminals not located in Los Angeles or Long Beach are due by February 1, 2026
- Low activity terminals that exceed the 20-visit annual threshold (Year 1) must submit a plan by July 1 the following year (Year 2)

68. What is the review process for port and terminal plans?

CARB's review of port and terminal plans is described in section 93130.14(c). Once a port or terminal plan (initial or revised) is received by CARB, CARB staff have up to 90 calendar days to review and notify the terminal operator or port of any deficiencies in the contents of the plan and/or to confirm acceptance of the plan. If CARB does not notify the applicable terminal operator or port of any deficiencies within that time period, the plan shall be deemed acceptable on the 90th calendar day following submittal to CARB.

69. How does a regulated entity know if their port or terminal plan is approved?

CARB will notify a port or terminal operator of any deficiencies in a port or terminal plan, respectively, within 90 calendar days following submittal, as stated in section 93130.14(c) of the 2020 Regulation. If CARB does not notify the applicable port or terminal operator or port of any such deficiencies, the plan shall be deemed acceptable on the 90th calendar day following submittal. Please note that CARB approval of a port or terminal plan means that the plan met the requirements of section 93130.14(a) or 93130.14(b) of the 2020 Regulation and is deemed complete. Acceptance of a port or terminal plan does not constitute approval of a regulated entity's intended compliance pathway.

70. Is there a CARB form available that can be used as a port or terminal plan?

No, CARB does not have any forms or templates to use for the port or terminal plan. However, submitters should ensure they have included all of the information required for terminal and port plans as detailed in sections 93130.14(a)(3) and (b)(3), respectively.

71. How does a regulated entity submit a port or terminal plan?

Port and terminal plans (including revised plans) should be submitted to CARB in writing by mail or electronic submittal per section 93130.19 of the 2020 Regulation. All submittals must be in the English language with the applicant attesting that all information submitted is true, accurate, and complete, signed under penalty of perjury by an individual(s) with the authority to certify that the regulated entity complies with applicable requirements of the 2020 Regulation.

Written submittals may be sent to:

CHIEF, TRANSPORTATION AND TOXICS DIVISION
CALIFORNIA AIR RESOURCES BOARD
1001 I STREET SACRAMENTO, CALIFORNIA 95814

CARB Approved Emissions Control Strategy (CAECS) Operator Requirements

72. Are there any fees associated with being a CAECS operator in the 2020 Regulation?

Yes, there are fees associated with CAECS approval and oversight under section 2913 of title 13 of the California Code of Regulations (*"Certification Fees for the At-Berth Regulation"*).¹⁷ These fees include test plan review, at-berth application, CEMS data review, design change, and minor amendments. For more information on the fee amounts and how to pay these fees, please visit the *Mobile Source Certification and Compliance Fee Regulation program page*.¹⁸

73. Who is considered a CAECS operator?

A CAECS operator is any party who operates a CAECS to reduce emissions for compliance with the 2020 Regulation. This could include a third-party operator, terminal operator, port, or even a vessel operator if the emission control strategy is located solely on a vessel, such as using a cleaner fuel or onboard technology that allows the vessel to meet the required emission rates of the 2020 Regulation.

74. What is required of a CAECS operator under the 2020 Regulation?

Operators of a CAECS must ensure they follow all requirements laid out in section 93130.12 of the 2020 Regulation, including following the CAECS checklist, reporting vessel visit information to CARB, properly maintaining a list of all subcontractor services and

¹⁷ <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2021/mobilesourcefee2021/fro.pdf#page=38>

¹⁸ <https://ww2.arb.ca.gov/mobile-source-certification-and-compliance-fee-regulation-meetings-workshops>

agreements in place, reporting any malfunctions of a CAECS, and submitting corrective action reports to CARB as needed.

75. When are CAECS test plans required to be submitted to CARB?

A CAECS test plan has no required submittal date. However, note that CARB needs to review and approve the test plan before any research exceptions are available for regulated entities who wish to participate in vessel testing, as specified in sections 93130.8(d) and 93130.10(e).

76. What is the default emission rate baseline used for auxiliary engines on oceangoing vessels?

The current baseline assumes auxiliary engines on ocean-going vessels have default emission rates of 13.8 g/kW-hr for oxides of nitrogen (NO_x), 0.17 g/kW-hr for particulate matter (PM) 2.5, and 0.52 g/kW-hr for reactive organic gases (ROG), as set forth in section 93130.5(d)(1).

77. What is the default emission rate baseline for ocean-going tanker vessel auxiliary boilers?

The current baseline assumes ocean-going tanker vessel auxiliary boilers have default emission rates of 2.0 g/kW-hr for NO_x, 0.17 g/kW-hr for PM 2.5, and 0.11 g/kW-hr for ROG, as set forth in section 93130.5(d)(2).

78. What are the emission rates that must be achieved for a CAECS to be approved for use for compliance with the 2020 Regulation?

To be eligible as a CAECS, a strategy must meet the requirements specified in section 93130.5 of the 2020 Regulation. This means that the strategy must demonstrate that it is able to achieve emission rates less than 2.8 g/kW-hr for NO_x, 0.03 g/kW-hr for PM 2.5, and 0.1 g/kW-hr for ROG for auxiliary engines, as set forth in section 93130.5(d)(1).

For tanker vessels with steam driven pumps, unless the tanker is using shore power to reduce emissions from auxiliary engines, a person must also demonstrate that the CAECS achieves emission rates less than 0.4 g/kW-hr for NO_x, 0.03 g/kW-hr for PM 2.5, and 0.02 g/kW-hr for ROG for tanker auxiliary boilers, as set forth in section 93130.5(d)(2). If a tanker vessel with steam driven pumps is using shore power to comply with the 2020 Regulation, then only the auxiliary engines are required to be controlled as there is no requirement to reduce boiler emissions if shore power is the CAECS being used.

79. Can a vessel achieve compliance with the 2020 Regulation by using cleaner technologies onboard?

Yes, a vessel can comply with the 2020 Regulation using cleaner engines, alternative fuels, or other onboard emissions control equipment (or a combination thereof), as long as the

technology has been approved by CARB per section 93130.5. Since any party who operates a CARB approved emissions control strategy (CAECS) is considered a “CAECS operator” (section 93130.2(b)(17)), vessel operators using approved onboard technologies to comply with emission control requirements must perform all the requirements of a CAECS operator as specified in section 93130.12.

80. How can an applicant test for ROG emissions on alternative fuels?

To summarize the definition used in section 93130.2(b)(62), Reactive Organic Gas (ROG) are a subset of Total Organic Gases but excluding some chemicals like methane, ethane, Chlorofluorocarbons (CFCs). For CAECS source testing in section 93130.5(g)(3) of the 2020 Regulation, ROG emissions are estimated as a percentage of total organic gas emissions (TOG). The 2020 Regulation specifies that TOG is measured following method 25A using a flame ionization detector. ROG is then estimated as a fraction of TOG using CARB’s speciation profiles. If the fraction has not yet been determined for a specific fuel or source, an applicant may use the factor 1.0. Alternative test methods or emission verifications may be used when specified in a test plan upon written approval from CARB’s Executive Officer. *Speciation profiles used in CARB modeling* are available for download online.¹⁹

81. How does CARB determine if a CAECS meets the grid-neutral requirement?

As required by section 93130.5(d), greenhouse gas (GHG) emissions from a CAECS must be grid-neutral using the grid emission rate for the year that the technology is granted an Executive Order. To receive CARB approval, a person must demonstrate the carbon dioxide equivalent (CO₂E) of all GHG emitting sources from the CAECS (but excluding the vessel engine exhaust emissions) is less than or equal to the state output emission rate in (CO₂E) of the year the CAECS is granted an Executive Order, as provided in section 93130.5(g)(5). The state output emission rate can be found at <https://www.epa.gov/egrid>.

82. Where can a CAECS operator find the carbon intensity of standard fuel if the operator decides to use a fuel with a CARB Low Carbon Fuel Standard certified pathway to apply a reduction to CO₂E?

As outlined in section 93130.5(g)(4), strategies that use a fuel with a CARB Low Carbon Fuel Standard certified pathway may apply a reduction to CO₂E by the factor of the carbon intensity of the fuel to the carbon intensity of the standard fuel. The carbon intensity of the standard fuel can be found on the *Current Fuel Pathways* spreadsheet.²⁰

¹⁹ <https://ww2.arb.ca.gov/speciation-profiles-used-carb-modeling>

²⁰ <https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities>

83. What are the steps CAECS operators must follow to get an emissions reductions technology approved by CARB?

Under section 93130.5(d), the first step is to submit a test plan to the Executive Officer for conducting the emissions reduction testing, durability testing, and a timeline for testing. After the applicant receives CARB approval for the test plan, the applicant needs to submit an application that includes all the source test data. CAECS operators should refer to section 93130.5(e) for specific details on the CAECS approval process.

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.

84. What are the steps CAECS operators must follow to modify a technology that was previously approved by CARB?

See section 93130.5(i)(2). Modifications to the design or operation of a CARB approved system cannot be made without informing CARB first. A CAECS operator may make modifications to its design or operation of the CAECS after CARB determines that the system will continue to meet the capture and control efficiencies specified in its Executive Order. When notifying CARB of the proposed modification, the applicant should describe the design modification and explain how the modification will change the operation and performance of the strategy. Additional testing may be necessary to show that the strategy's reductions are maintained or improved.

85. Can an identical system be approved without a CAECS operator having to submit a separate application?

Yes, there is a streamlined approval process for identical or "duplicate" systems. The new system(s) must be identical to the originally approved system, and documentation must be submitted to CARB, attesting that it is a duplicate. Once the new system is deemed a duplicate, the new system can be added to the existing Executive Order. All the same terms and conditions of the existing Executive Order will apply to the new duplicate system.

Once the new duplicate system is added to the Executive Order, in-use compliance testing is required to confirm the performance of the duplicate equipment per section 93130.5(j) of the 2020 Regulation, and the test data must be submitted to CARB within 6 months or 30 vessel visits, whichever comes first. In-use compliance test procedures must conform to the approved test plan for the original system. The required in-use compliance tests for container vessel approval consists of the following:

1. Third-party source testing at one load point following the requirements of section 93130.5(g) with Relative Accuracy Test Audit (RATA) testing.
2. Third-party capture efficiency testing at one load point.
3. Durability testing on a minimum of five vessels and a minimum of 200 hours.

86. What are CAECS operator reporting and recordkeeping obligations?

CAECS operators shall report the information to CARB regarding each vessel visit within 30 calendar days of vessel departure, per section 93130.12(b)(3). Relevant records must be kept for a minimum of 5 years, per section 93130.12(e).

87. What do CAECS operators do if there is an equipment malfunction while servicing a vessel for compliance with the 2020 Regulation?

As provided by section 93130.12(c), the operator of the CAECS shall report within 24 hours to CARB by electronic means 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. A CAECS operator must follow all requirements set forth in section 93130.12(c) for reporting a malfunction.

After the malfunction has been corrected, within seven days, the CAECS operator must follow all steps to submit a corrective action report as set forth in section 93130.12(d).

88. If a company is undergoing an Executive Order approval process for a CAECS, can vessels use that system for compliance while it is undergoing testing?

The 2020 Regulation includes a research exception to accommodate testing for CAECS approval. This provision applies to both vessel operators and terminal operators under sections 93130.8(d) and 93130.10(e) respectively. To qualify, the vessel and terminal operators must have confirmed the research exception prior to arrival, and any testing must be conducted in accordance with the CARB approved test plan.

If a research exception is not available, regulated entities participating in vessel testing may be eligible to use the remediation fund as an alternative compliance option. Information on the remediation fund use can be found in section 93130.15 of the 2020 Regulation; see also the Remediation Fund section of this document.

Exceptions

89. What circumstances qualify for an exception?

Regulated vessel visits that do not achieve the emissions reductions as required by the 2020 Regulation may elect to use a number of different exceptions to comply with the 2020 Regulation. Table 6 in section 93130.18 of the 2020 Regulation identifies several situations that may be eligible for each compliance pathway and who is likely to be identified as responsible parties in the event of noncompliance.

The 2020 Regulation defines and provides for exceptions to the emission control requirements for the following:

Section 93130.4

- Non-stop voyages
- Government and military vessels

Sections 93130.8 and 93130.10

- Safety and emergency events (see *Exceptions* section of this document for more information)
- Bulk and general cargo vessels (see *Vessel Operator Requirements* section of this document for more information)
- Vessel commissioning (see *Shore Power Vessel Commissioning* section of this document for more information)
- Research visits (see *CARB Approved Emissions Control Strategy (CAECS) Operator Requirements* section of this document for more information)
- Low activity terminals (see *Exceptions* section of this document for more information)
- Vessel Incident Events & Terminal Incident Events (see *Vessel and Terminal Incident Events* section of this document for more information)
- Remediation fund (see *Remediation Fund* and *Remediation Fund Administration* sections of this document for more information)
- Innovative Concepts (see *Innovative Concepts* section of this document for more information)

All exceptions must be reported in the vessel visit information submitted to CARB, apart from non-stop voyages and government and military vessels, as defined by the 2020 Regulation under section 93130.2, which are also exempt from reporting requirements. See the following questions in this document for specific information necessary to support certain exceptions.

90. How does the 2020 Regulation apply when the military is purchasing cargo space on a commercial vessel?

When the military is purchasing space on a commercial vessel for cargo, and they are not operating the vessel themselves, the vessel is not a military vessel as defined in section 93130.2(b)(36) and must meet the requirements in the 2020 Regulation. Compliance with the 2020 Regulation can be achieved through the use of a CAECS like shore power or an approved capture and control system, or through other compliance options like the discretionary use of one of the limited number of terminal incident events (TIE) by the terminal operator or vessel incident events (VIE) by the fleet operator.

However, if the military is the vessel operator, as in the case where the military spot-charters an entire vessel for military cargo, the vessel would be considered a military vessel under the 2020 Regulation and exempted from requirements per section 93130.4(b).

91. How do I report use of a safety and emergency event exception?

Along with claiming the safety and emergency event exception in the visit report, regulated entities should also submit all documentation necessary to establish the conditions necessitating the safety and emergency event exception and the date(s), local time, and location. Documentation should show how the situation meets the definition of a safety and emergency event defined under section 93130.2(b)(70). All safety and emergency events are subject to review and audit by the Executive Officer.

92. How do I report use of a VIE/TIE?

A VIE/TIE may be reported as the exception in the visit report. In addition, the visit report should also include the contact information of the responsible official who authorized the use of the VIE/TIE. For VIEs, there is a [template authorization form](#) available on CARB's website.²¹

93. How do I report use of the remediation fund?

The remediation fund may be reported as the exception in the visit report, and regulated entities need to submit a separate remediation request with documents within 30 days of vessel departure that support a qualifying circumstance for using this option, per section 93130.15(c). See CARB's [Remediation Fund webpage](#) or the [Remediation Fund](#) section of this document for more information.²²

94. How do I report use of an Innovative Concept?

To report a use of an Innovative Concept, one would include the usage in the visit information report that the vessel operator or terminal operator submits. For more information on how reductions are achieved using the Innovative Concept option and calculated for the cumulative vessel visits that report using this compliance option, see the [Innovative Concepts](#) section of this document.

95. What is "low activity", and what is the trigger for a new terminal to become subject to the emission control requirements in the 2020 Regulation?

A "low activity terminal," as provided in section 93130.2(b)(45), means a terminal that has not previously exceeded the terminal thresholds in section 93130.10(a) of this Control Measure. Low activity terminals are exempt from the emissions control requirements of the 2020 Regulation, per sections 93130.8(e) and 93130.10(a). If a low activity terminal receives 20 or more visits from a regulated vessel type for 2 consecutive years, that terminal no

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<https://ww2.arb.ca.gov/our-work/programs/ocean-going-vessels-berth-regulation/berth-reporting-templates>

²² <https://ww2.arb.ca.gov/our-work/programs/ocean-going-vessels-berth-regulation/remediation-fund>

longer qualifies as low activity, and it will have emissions control requirements under the 2020 Regulation even if activity decreases below the threshold at any future point. This is to ensure that investments made for infrastructure and emissions control systems do not become stranded assets (see Agency Response 15-58.10 in the *Final Statement of Reasons*, pg. 616).²³

If a terminal receives more than 20 visits for a calendar year, that one year (Year 1) exceedance triggers the obligation under section 93130.14(a)(2)(E) to submit a terminal plan to CARB by July 1 of the following year (Year 2) explaining how the terminal intends to comply with the 2020 Regulation in the next calendar year (Year 3). This is necessary to ensure that terminal operators who are seeing their visit activity grow are accounting for how they will control the additional emissions generated by the new vessel activity (pg. IV-89 in the *Initial Statement of Reasons*).²⁴ If the terminal expects to receive fewer than 20 visits in Year 2, then the terminal operator may explain in their terminal plan that the chosen path to compliance is to remain below the visit threshold for inclusion in the 2020 Regulation. As long as the terminal does not exceed 20 visits in Year 2, then the terminal will not have emissions control requirements. However, if the terminal does exceed 20 visits from a regulated vessel type for a second consecutive year (Year 2), then emissions control requirements will be in effect for that terminal starting January 1 of the next calendar year (Year 3).

96. What is a safety and emergency event and how do they impact compliance?

Per section 93130.2(b)(70), a safety and emergency event is defined as any situation where complying with the 2020 Regulation 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. Any vessel or terminal experiencing a safety or emergency event should include any documentation necessary to establish the conditions necessitating the safety and emergency event exception and the date(s), local time, and location with their regular visit report.

97. Do utility power shutoffs count as a safety and emergency event?

If a utility power shutoff meets the definition of a “utility event” under section 93130.2(b)(80), it may be considered as a safety and emergency event in the 2020 Regulation (see section 93130.2(b)(70) or the FAQ above on safety and emergency events). Utility events include, but are not limited to, events such as excessive heat events with State of Emergency declarations or the inability of utilities to provide shore power due to requests by State or local governments to reduce load on the electrical grid.

²³ <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/ogvatberth2019/fsor.pdf>

²⁴ <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/ogvatberth2019/isor.pdf>

Once the event is over or as per the direction of the applicable declaration, all regulated entities must resume compliance with the 2020 Regulation.

98. How is compliance handled during a utility power shutoff?

If a utility event (as defined in section 93130.2(b)(80)) impacts a vessel's ability to connect to shore power, the vessel and terminal operators may use exceptions on their vessel visit reports as provided under sections 93130.8(a) "Vessel safety and emergency event" and 93130.10(d) "Terminal safety and emergency event." In the event of a utility power outage that occurs not for reasons specifically defined in the 2020 Regulation (such as planned maintenance), a CAECS or the remediation fund (if the event meets a qualifying circumstance) is expected to be used to ensure that regulated entities are compliant with the 2020 Regulation. CARB looks at each potential non-compliance event individually, and the outcome for each specific situation will be handled on a case-by-case basis, subject to the interpretation of the facts surrounding those specific situations, and possibly may not be deemed Utility events. Questions regarding compliance can be emailed to shorepower@arb.ca.gov.

99. How is compliance handled if a utility blackout causes equipment damage at the terminal and/or onboard a vessel?

CARB looks at each potential non-compliance event individually, and the outcome for each specific situation may differ based on specific facts of the issue. Questions regarding compliance can be emailed to shorepower@arb.ca.gov. Generally, there may be a few potential pathways for compliance if a utility blackout causes equipment damage that cannot be repaired immediately. An entity can use a VIE or TIE, as applicable (section 93130.8(f) or 93130.10(f)) or could request the use of the remediation fund under terminal/port equipment repairs or vessel equipment repairs, as applicable (section 93130.15(b)(1) or (2)). In limited circumstances, a visit may qualify for the safety and emergency event exception (section 93130.8(a) or 93130.10(d)).

The requirement to reduce emissions under the 2020 Regulation applies to four regulated groups: vessel operators, terminal operators, ports operators, and CAECS operators. Utilities are not regulated entities responsible for reducing emissions under the 2020 Regulation. Any disputes between utilities and responsible parties under the 2020 Regulation related to blackouts may be addressed between those parties directly.

100. What happens when labor delays prevent a vessel from connecting to shore power or another CAECS?

If labor is delayed in connecting the vessel to a CAECS or disconnects the vessel early, a VIE/TIE may be used, or remediation fund use can be requested in order for that visit to be considered for compliance with the 2020 Regulation.

101. What happens if the operator/equipment for a scheduled CAECS does not show up?

CAECS operators have an obligation to follow all requirements laid out in section 93130.12 of the 2020 Regulation, including following the CAECS checklist. If a vessel or terminal operator has a contract or written agreement with a CAECS operator to provide service for a visit, but the CAECS operator does not honor that agreement for any reason, CARB will investigate the situation and may find the CAECS operator in violation for that visit. Vessel and terminal operators should submit their visit reports per sections 93130.7 and 93130.9, including any documentation substantiating the reason the CAECS was not available. Use of the remediation fund is an available compliance option for delays in emission control, including “failure of the CAECS operator under contract to perform” per section 93130.15(b)(3); see also the Remediation Fund section of this document.

102. What if there are delays in equipment installation or construction (including permitting or equipment delivery delays, etc.)?

Delays in equipment installation or construction that result in a vessel not being able to connect to a CAECS can use a VIE/TIE or make a payment into the remediation fund to remain compliant with the 2020 Regulation. Regulated entities may also use an approved Innovative Concept project to comply with the 2020 Regulation during the delay or construction.

103. Who is required to use a VIE/TIE or pay the remediation fund in the event a vessel cannot connect to a CAECS?

The 2020 Regulation does not dictate whether a vessel or terminal must use a VIE/TIE, or which party must pay the remediation fund in a qualifying event. It is up to the vessel and terminal operators to work together to decide this matter. In the event of a dispute, CARB’s Enforcement Division may consider the visit noncompliant and investigate all responsible.

Shore Power Vessel Commissioning

104. What if a vessel has to commission shore power equipment during a visit to a regulated terminal?

The first vessel commissioning visit made by a vessel to a terminal may be an exception as long as the vessel is able to successfully connect to shore power during that visit. Documentation of a successful vessel commissioning must be submitted with the vessel visit report. Additional commissioning visits may qualify for an exception if approved by CARB in writing where the vessel operator demonstrates that 1) the commissioning process could not be accomplished in a single visit or 2) the terminal requires that the vessel be recommissioned.

105. Who is responsible for compliance if a vessel's shore power equipment cannot be commissioned?

Ultimately, ports, terminals, and vessel operators are responsible for reducing emissions while the vessel is visiting a regulated berth. Terminal operators or ports (depending on the division of responsibilities outlined in the terminal and port plans) are responsible for commissioning vessels equipped with shore power that is installed on the side of the vessel facing the wharf when berthed (section 93130.9(a)(2)).

Communication between the vessel and terminal operators about the shore power needs for the vessel should be occurring at least seven days in advance of the vessel's visit per sections 93130.7(e)(1) and 93130.9(d)(1), giving time to procure an alternative CAECS if a shore power commissioning is not possible. If emission reductions are not achieved during the visit, regulated entities may use a VIE, TIE, or a CARB approved Innovative Concept to comply with the 2020 Regulation, or could request use of the remediation fund option under the circumstances described in section 93130.15(b).

106. What happens if a vessel operator brings a vessel with an 11 kilovolt (kv) shore power connection to a regulated California marine terminal, but that terminal has only a 6.6kv connection?

Both parties are required to reduce emissions, and terminal operators are responsible for commissioning vessels with shore power connections (section 93130.9(a)) while vessel operators are responsible for connecting to shore power when visiting a terminal where the vessel has previously commissioned or been deemed compatible (section 93130.7(a)).

If shore power commissioning is not possible due to a different equipment standard, either party may use another CAECS, a TIE or VIE, or a CARB approved Innovative Concept to comply with the 2020 Regulation for that visit, or could request use of the remediation fund option under the circumstances described in section 93130.15(b). Communication between the vessel and terminal operators about the shore power needs for the vessel should be occurring at least seven days in advance of the vessel's visit per sections 93130.7(e)(1) and 93130.9(d)(1), giving time to procure an alternative CAECS if a shore power connection is not possible.

107. What technical guidance is available on shore power for ro-ro and tanker vessels?

CARB does not set electrical or operational standards for shore power. Please note that technical guidance is available from the following sources:

- [IEC/IEEE 80005-1:2019+AMD1:2022+AMD2:2023](#) (August 2023) on general requirements for high voltage shore connection systems contains additional requirements for ro-ro vessels (normative) and tanker vessels (informative).²⁵
- Oil Companies International Marine Forum (OCIMF) has released [preliminary design recommendations for tankers and terminals using an onshore power supply](#) (December 2023).²⁶
- [DNV-RU-SHIP Pt.6 Ch.7. Sec.5 \[3\]](#) (July 2023) addresses “New requirements to allow for high-voltage shore connections on oil and chemical tankers”. This class notation can be found using [DNV’s Rules and Standards Explorer](#).²⁷

Vessel and Terminal Incident Events

108. What are Vessel Incident Events (VIE) and Terminal Incident Events (TIE)?

Vessel Incident Events (VIE) and Terminal Incident Events (TIE) are designed to provide regulated vessel fleets and terminal operators with a limited number of visits in which emissions are not reduced during a regulated vessel visit. A vessel or terminal operator may use a VIE or TIE in any situation where a party is unable to meet the emissions reduction requirements of the 2020 Regulation to remain in compliance. VIEs and TIEs provide regulated entities some limited amount of operational flexibility, while ensuring that emissions reductions from vessels at berth remain high. There are no qualifications that a regulated entity must meet to qualify for using one of their existing VIEs or TIEs – they are designed to be used however and whenever a regulated entity needs them.

109. What is a vessel fleet?

A vessel fleet, or fleet as defined under section 93130.2(b)(32), means a group of vessels of the same vessel type that have agreed to utilize their combined VIEs at a port or marine terminal and are registered with CARB by a person who is designated as that fleet’s representative. Fleets are only used in the 2020 Regulation for granting and using VIEs, and VIEs cannot be sold or traded to companies outside of a vessel’s registered fleet. There are no requirements as to what makes up a vessel fleet besides the fact that the vessels must be of the same vessel type. A fleet can consist of one or more vessel operators; all visits from a fleet to a port will be used to calculate the number of VIEs that fleet will receive each calendar year, and those VIEs will be shared across the entire fleet.

²⁵ <https://webstore.iec.ch/en/publication/88253>

²⁶ <https://www.ocimf.org/publications/information-papers/onshore-power-supply-systems>

²⁷ <https://www.dnv.com/rules-standards/index>

110. How does a vessel fleet register with CARB?

A vessel fleet may register at any point in time with CARB by submitting a request in writing to CARB staff via email (shorepower@arb.ca.gov) or in writing to:

Chief, Transportation and Toxics Division
California Air Resources Board
1001 I Street Sacramento, California 95814

A vessel fleet may be defined consistent with the “fleet” definition under Section 93130.2(b)(32) under the 2020 Regulation as a vessel operator chooses. For example, if fleet A and fleet B wish to combine themselves as a single fleet for the purposes of compliance with the 2020 Regulation in order to pool their VIEs at a single port, that is acceptable. Vessel operators must register their fleet with CARB in writing and should do so prior to the deadline for granting VIEs for the following calendar year so that CARB staff can assign the appropriate number of VIEs to the vessel fleet. (see section on [Vessel and Terminal Incident Events](#) of this document for more information).

111. How are VIEs/TIEs calculated?

VIEs are calculated pursuant to section 93130.11(b) of the 2020 Regulation based on the number of visits a vessel fleet makes to a regulated marine terminal. A vessel fleet will receive 5% of their annual visits as “VIEs” for the next calendar year; in other words, if a vessel fleet makes 100 visits to a regulated terminal in a calendar year, that fleet would have 5 VIEs to use in the next calendar year. Additionally, berth shifts (i.e., when a vessel moves from one berth to another berth) will count as a visit towards the accumulation of a VIE/TIE, as shifts are considered a separate visit (see section [Visit Reporting Requirements](#) of this document for more information on reporting vessel shifts). VIEs/TIEs are calculated in whole amounts that cannot be used in hourly increments and they cannot be transferred and traded with other fleets or terminals.

Separately, TIEs are calculated based on the number of vessel visits to the terminal between January 1 and December 31 of the previous year.

112. How many VIEs/TIEs does a vessel fleet/terminal get each year?

Table 3 in section 93130.11 of the 2020 Regulation identifies the rates that vessel fleets and terminals will receive VIEs and TIEs.

113. When will vessel and terminal operators know how many VIEs or TIEs they have to use?

For the initial compliance year of the 2020 Regulation (2023), CARB staff granted VIEs and TIEs to each vessel fleet and terminal operator by January 1, 2023, using 2021 visit information. Starting in 2024 and onwards, VIEs and TIEs will be granted by CARB to each registered vessel fleet and each regulated terminal by February 1 of each calendar year.

114. Are VIEs/TIEs port specific?

Yes, VIEs and TIEs must be used at the port or independent marine terminal in which they were earned. VIEs can be used by a vessel fleet at any terminal within the port in which they were granted for, but TIEs may not be transferred to any other terminal. See section 93130.11(d).

Additionally, Los Angeles and Long Beach are considered separate ports. As such, VIEs that are generated at Los Angeles cannot be transferred or combined with VIEs at Long Beach, and vice versa.

115. Do VIEs/TIEs expire?

Yes. VIEs/TIEs will expire on January 31 following the calendar year for which they were granted. For example, if a vessel fleet or terminal was granted 10 VIEs or TIEs for use in 2023, those VIEs or TIEs would be eligible for use through January 31, 2024.

116. Can terminal and vessel operators request additional VIEs/TIEs?

Yes, instead of receiving TIEs and VIEs through the process set forth in section 93130.11(a)(1) of this Control Measure, a vessel fleet representative or terminal operator may request additional VIEs or TIEs by December 1 of the preceding year in order to accommodate a new terminal at a California port or a vessel fleet that is new to California service (or has recently returned after a period of not calling California ports) or when an anticipated growth in visits is expected for an existing fleet or terminal that is not reflected in the current year's visits. In other words, if a vessel fleet typically makes 100 visits to a terminal per year (equivalent to 5 VIEs per year) but expects the number of visits to increase to 150, the fleet can petition CARB to count those additional visits towards their VIE calculation for the following year. Separately, if a new fleet of vessels (or one that has not called California in the previous calendar year) wishes to call a regulated terminal in California, the operator can petition CARB to provide the fleet with VIEs based on their projected number of port calls for the following calendar year. The same examples would be true for a terminal operator. For any case, all requests for additional VIEs/TIEs must be made in writing to CARB by December 1 for consideration in the following year, and CARB will notify the requestor about CARB's approval or denial of the request in writing by February 1.

It is important for vessel fleets and terminals not to significantly overestimate the number of projected visits when requesting additional VIEs and TIEs, as actual visit numbers and VIEs used will be investigated by CARB staff on an annual basis. If a vessel fleet or terminal attempts to claim more VIEs or TIEs than the actual visits support, any visits not covered by a VIE or TIE will be considered noncompliant.

Additionally, if a fleet or terminal operator requests more VIEs/TIEs from CARB, it is important to note that the fleet/operator is foregoing the original CARB VIE/TIE default

value, and the use of VIEs/TIEs will be assessed using the actual number of visits made at the end of the year. For example:

- 1) VIEs: If a vessel fleet makes 100 visits to a regulated terminal in 2023, CARB would follow the formula under Section 93130.11(b) to automatically grant that fleet operator 5 VIEs (5%) for use between February 1, 2024, through January 31, 2025. If that same fleet expects to make an additional 20 visits in 2024, they could submit a written request to CARB by December 1, 2023, to grant their fleet additional VIEs based on the projected activity for 2024 (5% of 120 visits, for a total of 6 VIEs in this case). As long as the vessel fleet makes the expected 120 visits, they may use all 6 VIEs; however, by requesting additional VIEs, the fleet is forgoing the CARB default VIE value. In this case, CARB is provisionally giving the fleet 6 VIEs, but the number of VIEs must be less than or equal to the VIE and TIE rate multiplied by the fleet or terminal activity. This means that any visits not covered by a VIE or TIE would be noncompliant (see section 93130.11(c) of the 2020 Regulation). For example, if a fleet requests 6 VIEs, but only makes 80 visits, then they are limited to using only 4 VIEs.
- 2) TIEs: If a regulated terminal receives 100 visits in 2023, CARB would follow the formula under Section 93130.11(b) to automatically grant that terminal 15 TIEs (15%) for use between February 1, 2024, through January 31, 2025. However, if that same terminal anticipates receiving 20 additional visits in 2024, they could make a written request to CARB by December 1, 2023, to grant their terminal additional TIEs to use in 2024 (15% of 120 visits, for a total of 18 TIEs in this case). If this terminal receives the expected 120 visits (or more), then all 18 TIEs may be used. However, similarly to the VIE example above, by requesting additional TIEs, the terminal is forgoing the CARB default TIE value. Compliance will be assessed based on the actual visits to the terminal; as such, if the terminal has only received 80 visits by the end of 2024, then only 12 TIEs would be allowed. If a visit attempts to use a TIE for compliance beyond the 12th instance, the visit would not be compliant. Note that for use in 2025 and beyond, the TIE rate decreases to 5%.

117. Can vessel or terminal operators request additional VIEs and TIEs for a current calendar year if a new vessel fleet starts calling a regulated California terminal mid-year?

No, there is no pathway in the 2020 Regulation to request additional VIEs or TIEs for a calendar year mid-year. If a vessel fleet expects to begin calling California or a terminal operator expects to receive a new customer in a given year, then they may request additional VIEs or TIEs by December 1 of the previous year. There is no penalty for requesting additional VIEs or TIEs if the anticipated increase in vessel activity does not occur, as long as those additional VIEs or TIEs are not used.

118. How do vessel and terminal operators report use of a VIE or TIE?

Vessel and terminal operators should report use of a VIE or TIE with their visit report. The visit will then be deducted from the vessel's registered fleet's bank of VIEs or the terminal's bank of TIEs for the year. Vessel fleet operators and terminal operators must report the use of a VIE or TIE with each visit report and are responsible for tracking the usage of the vessel fleet's or terminal's VIEs and TIEs, respectively. When a VIE is used, the fleet operator must approve the VIE in writing to CARB.

119. How will the use of VIEs/TIEs be assessed for accuracy?

The use of VIEs/TIEs is subject to audit at the end of each calendar year and when CARB staff reviews the actual activity by the fleet or to a terminal, 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.

Remediation Fund

120. What is the remediation fund?

The remediation fund is an additional compliance option in the 2020 Regulation that allows regulated entities to comply with the 2020 Regulation by remediating uncontrolled emissions at berth through an hourly payment that is based on the cost of securing equivalent emissions reductions. This compliance option may be used under limited circumstances, described in section 93130.15(b). For eligible requests to use the remediation fund, payments are transferred to third-party fund administrators as described in section 93130.15(e). Payments to the remediation fund are not penalties. Funds collected will go towards projects that reduce equivalent emissions in the same port communities that are impacted by the uncontrolled emissions.

121. Who can use the remediation fund?

As provided under section 93130.15, any vessel operator, terminal operator, CAECS operator, or port that has made a certain enforceable commitment to reducing emissions at berth, but is unable to reduce emissions during a vessel visit due to a qualifying circumstance, may apply to pay into the remediation fund to remain in compliance with the 2020 Regulation. The "certain enforceable commitments" language is flexible so that CARB may allow for multiple pathways, determined on a case-by-case basis, toward meeting the "enforceable commitments" requirement. An enforceable commitment evidences an entity's efforts to comply with the 2020 Regulation, and may be entered into with third parties such as CAECS service providers or CAECS equipment manufacturers/installers. Regulated entities seeking use of the remediation fund must submit remediation requests with specific information that supports eligibility for the event for which the remediation fund use is requested so that CARB can make an eligibility determination.

CARB does not specify which regulated entity pays the remediation fund when the required emissions reductions are not achieved; this decision is between the regulated entities (vessel operator, terminal operator, ports, and third-party CAECS operator, if applicable).

122. What circumstances would qualify for use of the remediation fund?

The remediation fund is designed to be used when a vessel or terminal has made investments or taken steps to use a CAECS but is unable to reduce emissions during a visit to a regulated berth. This list of qualifying circumstances can be found in section 93130.15(b) of the 2020 Regulation: equipment repairs, delays in connecting to a control strategy, construction-related activities at the terminal that prevent connection to a CAECS, or an unavoidable physical and/or operation constraint that was identified in a terminal plan that was submitted to and approved by CARB. For example, for vessels or terminals that have contracted shore power equipment to be installed or have contracted with a 3rd party CAECS operator to provide emission control service, but there is a delay, the use of the remediation fund may be possible for compliance if the regulated entity can provide sufficient documentation to CARB proving that delays are unavoidable.

CARB evaluates each request to use the remediation fund on a case-by-case basis. Regulated entities seeking the use of the remediation fund must submit remediation requests with specific information so that CARB can make an eligibility determination. In the event that a regulated entity is not clear which qualifying circumstance might apply to their situation, CARB staff can help determine which circumstance(s) might apply to that specific request based on the submitted information.

123. How does a regulated entity apply to use the remediation fund?

As provided by Section 93130.15(d), regulated entities wishing to use the remediation fund for compliance with the 2020 Regulation should submit their request with supporting documentation to CARB within 30 calendar days after the affected vessel visit. This is a separate request outside the visit report. CARB then has 30 calendar days of each request to notify the requestor whether the visit(s) are eligible to use the remediation for compliance. During the 30-day CARB review period, CARB may contact the requestor to provide additional information to support the request. If approved, the requestor then has 30 days to transfer their payment to the CARB approved fund administrator, according to the specific payment provisions established by that administrator in its MOU with CARB. The 2020 Regulation does not provide which party pays into the remediation fund or how the cost is split as long as the appropriate amount is paid into the fund.

124. Do regulated entities need to request remediation for each individual vessel visit?

If a situation is eligible for a single remediation circumstance, and that circumstance is going to continue to occur during multiple potential visits, regulated entities may seek a prospective eligibility determination from CARB under section 93130.15(h). For example, if a vessel makes repeated visits to a terminal, the vessel operator/charterer could seek a

prospective eligibility determination from CARB under section 93130.15(h) to ensure that they are eligible to use the remediation fund when visiting that terminal.

Prospective eligibility determinations under section 93130.15(h) are made on a case-by-case basis based on a request from a regulated entity which must include compelling documentation that demonstrates the eligibility of the request.

Even where CARB has made a prospective eligibility determination, remediation requests must be submitted for each vessel visit within 30 days of departure. This is necessary to confirm the payment amount to be transferred to the fund administrator, which is calculated on an hourly basis.

125. How is the remediation fund payment calculated?

The amount paid per hour for remediation is based on vessel type and engine classification and is set forth in Table 4 in section 93130.15 of the 2020 Regulation. 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 cost to achieve emission reductions through incentive activities in the communities exposed to the excess emissions, including 10% for administration expenses. See sections 93130.15(d)-(g) of the 2020 Regulation for more information about remediation fund payments.

126. What pollutants are used to calculate the remediation fund hourly rate?

The rationale for the remediation fund hourly rate appears in the *Initial Statement of Reasons* for the 2020 Regulation beginning on page IV-96.²⁸ The hourly rate was calculated based on the Carl Moyer Advanced Technology Limit for cost effectiveness for consistency with other CARB programs. Staff estimated the typical hourly emissions of pollutants that would need to be mitigated by vessel type, using default power and emission factors. The hourly pollutants were weighted in accordance with the Carl Moyer Program formula, $NO_x + ROG + 20 \cdot PM$ to determine an hourly rate. The rate was further increased by 10% to cover potential administrative costs.

127. How is the remediation fund hourly rate adjusted?

Per section 93130.15(g), CARB staff adjust the hourly remediation payment amounts every other year and post these updates to CARB's remediation fund webpage. The hourly amounts published in section 93130.15(f) Table 4 refer to the value of the U.S. dollar in 2019, so CARB staff adjust the hourly amounts for inflation using Consumer Price Index values published by the Bureau of Labor Statistics relative to 2019. See the At Berth Final Statement of Reasons Section II(B)(12)(iii) for more discussion.

²⁸ <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2019/ogvatberth2019/isor.pdf>

Starting in 2021, this update is due prior to the beginning of each odd numbered calendar year (i.e., by December 31 the previous year). The 2025-2026 hourly amounts were calculated by comparing buying power of \$1 in January 2019 versus January 2024, resulting in a 22.53% increase to the hourly amounts in Table 4. Future adjustments will be calculated by comparing January 2019 to January 2026 for 2027-2028 hourly amounts, comparing January 2019 to January 2028 for 2029-2030 hourly amounts, and so on.

128. If a vessel does not have shore power and no alternative CAECS is available at a port, could the remediation fund be used for compliance?

This situation will depend on the circumstances of each event. The use of the remediation fund is not triggered from there being no alternative CAECS available in a port. The 2020 Regulation under Section 93130.15(b) provides the five circumstances when the remediation fund may be used.

If a vessel has ordered shore power equipment in time to comply with the 2020 Regulation, but there is a delay in receiving and installing that equipment, then that visit may qualify for use of the remediation fund under section 93130.15(b)(3). Similarly, as stated in section 93130.15(b)(3), the remediation fund could be used if the vessel has shore power, but that equipment is unavailable to be used for compliance due to a delay in operating the equipment (i.e., labor was delayed in plugging the vessel in or an approved capture and control system was late to connect to a vessel) or if the terminal has a physical and/or operational constraint that is identified in an approved terminal plan.

Remediation Fund Administration

129. What is a remediation fund administrator?

A remediation fund administrator is an entity that has received approval from CARB to administer the remediation fund for individual ports and independent marine terminals. A remediation fund administrator may be the California Air Pollution Control Officers Association (CAPCOA), a local air quality management or air pollution control district, or a third-party non-profit organization (if no air district applies to administer the remediation fund).

130. How were the remediation fund administrators selected?

In May 2022, CARB staff sent letters to CAPCOA and the air districts that have regulated ports and/or marine terminals in their jurisdiction regarding the regulatory provision allowing them to apply to become a remediation fund administrator for the 2020 Regulation. These entities had 120 days to formally apply to become a remediation fund administrator, with an application due date of September 29, 2022. CARB received 6 applications from the following entities, collectively covering all the geographic regions that have regulated ports and marine terminals subject to the 2020 Regulation:

- Bay Area Air Quality Management District (Ports of San Francisco, Oakland, Redwood City, Richmond, and Independent Marine Terminals)
- San Diego Air Pollution Control District (Port of San Diego)
- San Joaquin Valley Air Pollution Control District (Port of Stockton)
- South Coast Air Quality Management District (Ports of Los Angeles, Long Beach)
- Ventura County Air Pollution Control District (Port of Hueneme)
- California Air Pollution Control Officers Association - CAPCOA (N/A, as needed)

CARB staff reviewed all applications for eligibility and completeness, including a signed resolution from each organization’s governing board allowing them to be remediation fund administrators. CARB determined that all six applicants were eligible to become remediation fund administrators and notified them accordingly. Each of these applicants entered into a *MOU with CARB* to receive and allocate funds in the appropriate regions for each regulated port.²⁹ Air districts administer a remediation fund for the regulated ports and marine terminals in their region, and CAPCOA is available to serve as a fund administrator as needed.

131. What are the obligations of a remediation fund administrator?

Per section 93130.16(h) and as described in the *MOUs with CARB*,³⁰ a remediation fund administrator agrees to use remediation funds for incentive activities that directly benefit communities impacted by excess emissions from activities covered by the 2020 Regulation and achieve emissions reductions consistent with CARB’s most recent applicable incentive program guidelines. 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 emissions reductions achieved. Also, the fund administrator must retain all records for five years after a funded incentive activity has concluded.

132. Can remediation funds be administered as part of an existing incentive program?

Yes, remediation funds can be administered as part of an existing incentive program; however, the remediation funds cannot be used in place of any required match funding (section 93130.16(h)(3)).

²⁹ <https://ww2.arb.ca.gov/berth-remediation-fund-mous>

³⁰ <https://ww2.arb.ca.gov/berth-remediation-fund-mous>

133. Can remediation funds be combined with other funds to complete a project?

Yes, however, remediation funds may only be combined with funds from other incentive programs to the extent that the emissions reductions achieved by the remediation fund are capable of being calculated and attributed to the remediation fund (section 93130.16(h)(3)).

134. What emission reductions are required for projects to be eligible for funding?

Per section 93130.16, incentive activities funded by remediation monies must comply with adopted CARB guidelines on existing incentive programs and must achieve emission reductions that are early or in excess of any other legal requirement. Emission reductions must also be early or in excess of any strategy identified in an AB 617 Community Emissions Reduction Program that has been approved by CARB's Board. For more information and program guidelines, see the links below:

- [*Carl Moyer Program*](#)³¹
- [*Community Air Protection Incentives*](#)³²
- [*Proposition 1B Goods Movement Emission Reduction Program*](#)³³
- [*Clean Off-Road Equipment Voucher Incentive Project*](#)³⁴
- [*Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project*](#)³⁵

135. Where can projects be funded?

The remediation funds must be used for incentive activities that directly benefit the same communities impacted by excess emissions from the port or independent marine terminal (section 93130.16(h)(3)). For example, remediation funds from excess emissions at the Tenth Avenue Marine Terminal in San Diego could be used for projects in the adjacent neighborhoods of Barrio Logan or Sherman Heights. However, funds paid to remediate these emissions could not be used to fund a project in South Coast or Bay Area. 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 (section 93130.16(h)(3)).

³¹ <https://ww2.arb.ca.gov/our-work/programs/carl-moyer-memorial-air-quality-standards-attainment-program>

³² <https://ww2.arb.ca.gov/our-work/programs/community-air-protection-incentives>

³³ <https://ww2.arb.ca.gov/our-work/programs/proposition-1b-goods-movement-emission-reduction-program>

³⁴ <https://ww2.arb.ca.gov/our-work/programs/clean-off-road-equipment-voucher-incentive-project>

³⁵ <https://californiahvip.org/>

136. What is the timeline for administrators to fund incentive activities using the remediation funds that are collected?

Per section 93130.16(h)(5) and as described in the *MOUs with CARB*, fund administrators must identify a schedule for expending remediation funds.³⁶ Fund administrators are expected to obligate (or commit) and expend funds to achieve community health benefits as quickly as reasonably feasible.

137. What percentage of the remediation funds collected can the administrator retain for administration expenses?

Per section 93130.16(h)(11) and as described in the *MOUs with CARB*, the fund administrator may retain up to 10% of the remediation funds collected for its direct and reasonable expenses incurred to implement the incentive program.³⁷

138. Does the 10% for administration expenses come out of the total amount of funds collected or is it in addition to the amount of funds collected?

The 10% for administration expenses is already included in the hourly rate.

139. Does CARB intend to take a portion of the 10% for CARB's administration process?

No. Remediation funds go directly to a remediation fund administrator, not through or to CARB (section 93130.15(e)). A remediation fund administrator does not withhold any of their administration funds for CARB's administration.

140. Who will be responsible for enforcement of the remediation fund?

CARB's Enforcement Division is responsible for enforcing compliance with the 2020 Regulation, including enforcement of the use of remediation fund for compliance. For more information, see the *Emission Control Requirements* section of this document.

Innovative Concepts

Note: The deadline for Innovative Concept Applications has passed, and CARB is no longer accepting applications.

141. What is the Innovative Concepts Compliance Option?

The Innovative Concepts Compliance Option ("Innovative Concepts") is a compliance pathway in section 93130.17 of the 2020 Regulation allowing regulated vessel fleets,

³⁶ <https://ww2.arb.ca.gov/berth-remediation-fund-mous>

³⁷ <https://ww2.arb.ca.gov/berth-remediation-fund-mous>

terminal operators, and/or ports to comply with the 2020 Regulation by reducing emissions from sources in and around the port communities near where the vessels visit. Innovative Concepts must achieve equivalent or greater emissions reductions of the same pollutants within the same communities that would otherwise see benefits from direct emissions reductions from vessels at berth. All Innovative Concepts projects must be approved through an Executive Order by CARB before being used as a compliance pathway for the 2020 Regulation.

142. What level of emissions reductions must be achieved for an Innovative Concept project?

Innovative Concept projects must achieve NO_x, PM 2.5, and ROG emissions equivalent to or greater than the level that would have been achieved by directly reducing emissions from a vessel at berth through the use of a CAECS, while not increasing GHGs (section 93130.17(a)(2)). The total level of emissions reductions achieved by an Innovative Concept project will depend on the number of visits it is designed to replace.

143. Is there a geographical limit to where an Innovative Concept can reduce emissions?

There is no specific geographic limit to where emissions reductions from Innovative Concepts projects must occur, and each project will be assessed on a case-by-case basis. However, Innovative Concepts projects must achieve emissions reductions at the same port or marine terminal, within adjacent communities that are impacted by vessel emissions at berth, or overwater within three nautical miles of the port or marine terminal (section 93130.17(a)(4)). The Innovative Concept project must not increase emissions at other ports or marine terminals (section 93130.17(a)(5)).

144. What kind of projects would be considered an Innovative Concept?

CARB evaluated any project that met the regulatory requirements as set forth in section 93130.17 for approval as an Innovative Concept. Per section 93130.17(a)(3), emissions reductions must be early and above any existing state, federal, or international law (including, but not limited to rules, regulations, and statutes), or any emissions reduction strategy identified as part of an AB 617 Community Emissions Reduction Program (CERP) approved by CARB's Board.

Innovative Concept projects could not include projects that are considered "business as usual" projects; in other words, projects that are reasonably expected to occur to provide benefits to impacted communities in the absence of the 2020 Regulation (section 93130.17(a)(6)). Innovative Concept projects also could not include plans that simply involve moving emissions sources to other ports or marine terminals, i.e., reducing emissions by relocating a percentage of a fleet to another port or terminal on the West Coast (section 93130.17(a)(5)).

The Innovative Concepts applications must have specified how the project would achieve emissions reductions that are real, quantifiable, verifiable, and enforceable (section 93130.17(a)(6)).

145. Who can use the Innovative Concepts Compliance Option?

Innovative Concepts were open for any regulated entity (i.e., vessel fleet, terminal operator, port, or third-party CAECS operator) to apply by December 1, 2021, to use for compliance with the 2020 Regulation, either as a primary compliance pathway or as a “hybrid approach” to supplement additional visits that cannot be controlled by directly reducing emissions from ocean-going vessels at berth.

146. How does a regulated entity report use of an Innovative Concept project for compliance?

Approved Innovative Concepts will be issued an Executive Order by CARB’s Executive Officer (section 93130.17(b)(4)). Any vessel or terminal operator wishing to use an approved Innovative Concept project for compliance for a regulated visit would simply report the Executive Order as part of their required visit report as specified in sections 93130.7 and 93130.9. The visit’s compliance is dependent on the accurate and sufficient reporting under the Innovative Concept due to CARB annually per section 93130.18(d). The specific reporting requirements for an Innovative Concept are specified in that concept’s Executive Order.

147. Will CARB accept Innovative Concept applications now that the submittal deadline has passed?

No. Applications for Innovative Concepts were required to be submitted to CARB on or before December 1, 2021 (section 93130.17(a)(1)). Because this deadline has passed, no further applications will be accepted for new Innovative Concept projects. Regulated entities may continue to apply to use new future technologies as a CAECS for compliance with the 2020 Regulation at any time.

148. What is the review process for the Innovative Concept?

Innovative Concepts were due by December 1, 2021. CARB received 12 applications by the December 1, 2021, deadline, many of which contained multiple “sub-concepts” resulting in a total of 63 sub-concepts. The applications were then published on *CARB’s website* for public review.³⁸ Each of the applications had missing components that are required before the applications can be reviewed by CARB staff. As such, CARB staff reached out to applicants, notifying them about the information missing from their applications. These letters to applicants were then also posted on CARB’s website alongside each application.

³⁸ <https://ww2.arb.ca.gov/berth-regulation-innovative-concept-applications>

The At Berth Regulation requires a 45-day public comment period for all Innovative Concept applications. This was necessary to allow the public an opportunity to engage in a dialogue and be included in the process for Innovative Concept approval. A public comment docket was opened for each Innovative Concept application. After the public comment period, the applicants were required to respond to all public comments within 45 calendar days of the closing of the public comment period. The applicant responses to the public comments were then posted with the original applications.

CARB staff are in the process of reviewing the Innovative Concepts to determine if they meet the stipulations set forth in section 93130.17 of the 2020 Regulation and are prioritizing evaluating applications based on applicants with earlier compliance dates. If the concept meets the criteria, CARB staff will recommend to CARB's Executive Officer that the Innovative Concept be approved, upon approval a notification will be sent to the applicant. Likewise, if the concept does not meet the criteria, CARB staff recommends to CARB's Executive Officer that the Innovative Concept not be approved, and if the Executive Officer agrees with staff's proposal, a notification of disapproval is then sent to the applicant. If, after thorough review, CARB staff or the Executive Officer need more information, the Executive Officer will send out a formal request for more information. The applicant then has 30 days to provide the additional information.

149. How does an applicant know if an Innovative Concept application has been approved?

When an application is approved, the Executive Officer will notify the applicant of approval to use the Innovative Concept for compliance with the 2020 Regulation and will publish the approval in an Executive Order, along with the application (section 93130.17(b)(4)). An applicant can contact CARB staff by e-mailing shorepower@arb.ca.gov to check on the status of the application. If an application is incomplete, the Executive Officer will notify the applicant of any deficiencies. Applications will be denied after 30 calendar days unless the applicant corrects and resubmits the application for a new evaluation (section 93130.17(b)(5)).

150. Are there annual reporting requirements for an Innovative Concept project?

Yes. By February 1 of each year, any Innovative Concept applicant must report any use of an Innovative Concept for the prior calendar year to CARB, as set forth in section 93130.17(d). An annual report must provide a list of visits that used the Innovative Concept for compliance and the reductions achieved for each pollutant. The reductions of each pollutant achieved by the Innovative Concept must be equal to or exceed the emissions of each pollutant calculated from the cumulative vessel visits that reported using the Innovative Concept for compliance. If the annual report does not show that the Innovative Concept achieved the promised emissions reductions, the parties using the Innovative Concept for compliance may be subject to enforcement action.

See Section 93130.17(d)(1) for more details on annual reporting, including how to calculate emissions using total fuel used for each visit and how to calculate reductions if an Innovative

Concept affects the amount of fuel used during a vessel visit (i.e., shore power is used as part of an Innovative Concept, resulting in no fuel being burned).

151. How does an applicant estimate the vessel emissions covered under an Innovative Concept?

An applicant should estimate the vessel emissions planned to be covered under an Innovative Concept by multiplying the emission factor for each pollutant (NO_x, PM 2.5, and ROG from section 93130.5(d) of the 2020 Regulation) by the expected number of vessel visits, average visit duration, and expected power used during an average visit (section 93130.17(b)(1)(C)).

152. How will CARB ensure that Innovative Concepts projects are achieving the required emissions reductions?

CARB will audit Innovative Concepts projects annually to ensure that the required emissions reductions are being met. See section 93130.17(d) for details on the annual reporting process for users of Innovative Concepts projects.

153. How long are Innovative Concept project approvals good for?

Innovative Concept projects may be approved for a compliance period of up to five (5) years. The approved compliance period will vary depending on the scope of the project. An Innovative Concept may be reappraised by CARB for an additional compliance period(s) of up to five years assuming the Innovative Concept is expected to continue meeting all the requirements found in Section 93130.17(a)(7).

154. What could result in an Innovative Concept compliance period not being extended?

Noncompliance with any of the circumstances listed in subsection 93130.17(f)(1) of the 2020 Regulation may result in a compliance period not being extended. An Innovative Concept compliance period may also not be extended if any new local, state, federal, or international law (including, but not limited to rules, regulations, and statutes), or any new emission reduction strategies identified in a CARB approved AB 617 CERP, is expected to require the emissions reductions achieved by the Innovative Concept, thus making them no longer “early and in excess”.

As described in section 93130.17(a)(8), an applicant may also cancel an approved Innovative Concept for any reason, but all vessel and terminal operators that intended to rely on the canceled Innovative Concept are required to continue complying with the 2020 Regulation, and as such will need a backup plan for compliance. A canceled Innovative Concept project will have a compliance period end date effective on the date of cancellation.

155. What could result in an Innovative Concept being revoked by CARB?

CARB's Executive Officer may revoke or modify an approved Innovative Concept's Executive Order as set forth in section 93130.17(f). CARB will provide a 30-calendar day notice to the Innovative Concept holder of the revocation or modification. CARB's determination is final and not subject to review. Public notification of a revocation or modification of an approved Innovative Concept shall be made available on CARB's website.

156. Can reductions from an Innovative Concept be banked and used at a later date?

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. For example, if a ro-ro terminal elects to invest in an approved Innovative Concept project that involves purchasing and using a zero-emission locomotive that achieves emissions reductions at the port that go above and beyond any existing requirements starting in 2022, then that terminal may bank the emissions reductions credits from that Innovative Concept project from the time the equipment starts being used in 2022 until January 1, 2025, when the compliance date for ro-ro vessels begins. However, early reductions are only applicable for the initial compliance period and will expire when the initial compliance period ends. After the first compliance period, no early reductions achieved from Innovative Concepts can be used for compliance with the 2020 Regulation.

157. Can an Innovative Concept project be modified after approval?

Per section 93130.17(f), only CARB's Executive Officer may modify an Executive Order for an approved Innovative Concept, and only under limited circumstances (i.e., the approved Innovative Concept becomes no longer capable of being used for compliance in its current form). There is no regulatory provision that allows the applicant to modify their proposed Innovative Concept project(s) after application submittal. Prior to approval, CARB staff may work with applicants on any necessary clarifying information needed after application submittal, but no modifications of the Innovative Concept plan will be permitted.

158. Can CARB incentive funding or other funding sources be used to pay for an Innovative Concept project?

No public incentive monies can be used to fund an Innovative Concept project, either partially or fully, as per section 93130.17(a)(12).

159. Do visits using an Innovative Concept count towards a vessel fleet's VIEs or terminal's TIEs?

No, visits complying with the 2020 Regulation through the use of an Innovative Concept will not be included in the calculation of a vessel fleet's number of VIEs or a terminal's number of TIEs for the next calendar year (sections 93130.11(a)(1) and 93130.17(a)(9)).

Any vessel visits not using an Innovative Concept will count towards the accumulation of VIEs and TIEs.

160. Can visits using an Innovative Concept qualify to use the remediation fund?

No. Visits complying with the 2020 Regulation through the use of an Innovative Concept are not eligible to apply for use of the remediation fund (section 93130.17(a)(9)).

Incentives

161. What incentive funding is available to support reducing vessel emissions at berth?

CARB is aware of the following programs, though this list is not exhaustive and other funding sources may be available. At this time incentive funding is available for shore power, capture and control, and cable reels through these programs (potential equipment that is eligible for funding through each program in parenthesis):

- Low Carbon Transportation - Advanced Technology Demonstration and Pilot Projects (capture and control systems for tankers);
- Carl Moyer Program (shore power, capture and control systems);
- VW Mitigation Trust (shore power);
- AB 617 Community Air Protection (shore power, capture and control systems);
- Clean Off-Road Equipment Voucher Incentive Project (cable reel management systems); and
- Prop 1B Good Movement Program (shore power).
- U.S. Department of Transportation Maritime Administration (MARAD) - Port Infrastructure Development Program (shore power). MARAD also offers programs to incentivize the expansion and modernization of the U.S. merchant fleet through construction, reconstruction, or acquisition of vessels.
- The Inflation Reduction Act of 2022 provided EPA with \$3 billion to fund zero-emission port equipment and infrastructure, as well as climate and air quality planning at U.S. ports. Two Notices of Funding Opportunity (NOFOs) were announced to disburse these funds, the Zero-Emission Technology Deployment Competition and the Climate and Air Quality Planning Competition. Both NOFOs closed on May 28, 2024. EPA anticipates notifying selectees by September 2024 and awarding the grants by December 2024.

162. Can an OGV using shore power qualify for the Low Carbon Fuel Standard (LCFS) credits?

Yes, using grid-based shore power is an option for generating credits for ocean going vessels at berth. An OGV using grid-based shore power is an eOGV under the LCFS

program. See the [LCFS Guidance 19-04 \(ca.gov\)](#) which provides guidance for eOGV.³⁹ The reporting template and more information can be found on the [LCFS program's website](#).⁴⁰

163. Where can I find more information on these programs?

For more information on the various funding programs that are offered through CARB please go to [CARB's webpage on financial incentives](#).⁴¹

Purpose and Historical Context

164. How is the 2020 Regulation different from the 2007 At-Berth Regulation?

CARB built on the successful 2007 At-Berth Regulation (2007 Regulation) by expanding emissions control requirements to more vessels, including two new vessel types: tanker and roll on-roll off (or "ro-ro") vessels, and including new ports and terminals that serve these new vessel types. The 2020 Regulation will also further improve air quality and increase health benefits in port communities already covered under the 2007 Regulation by increasing the number of already-regulated vessel types (container, refrigerated cargo ("reefer"), and cruise vessels) subject to the 2020 Regulation by transitioning from a 25-visit fleet-based threshold to a more health-protective 20 visit terminal-based threshold.

The 2007 Regulation required a certain percentage of a fleet's vessels to plug into shore power while at berth and only vessel operators had compliance obligations. With the 2020 Regulation, every container, reefer, cruise, ro-ro, and tanker vessel, and every regulated terminal operator will have an obligation to work together as necessary to meet the 2020 Regulation's emissions reduction requirements on every single visit to any regulated terminal. Ports also have expanded responsibilities under the 2020 Regulation, including ensuring that any terminal customer operating at their port has the infrastructure needed to comply with the 2020 Regulation.

165. Do any requirements of the 2007 Regulation remain in effect past January 1, 2021?

All requirements of the 2007 Regulation remained in effect for container, refrigerated cargo, and cruise vessels until January 1, 2023. A limited number of recordkeeping and reporting provisions in the 2007 Regulation were extended through or past January 1, 2023.

These include, but are not limited to (see table on the next page):

³⁹ https://ww2.arb.ca.gov/sites/default/files/2022-09/lcfsguidance_19-04_093022.pdf

⁴⁰ <https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard>

⁴¹ <https://ww2.arb.ca.gov/our-work/topics/incentives>

Provision	Location in Regulation	Description
Reporting and Recordkeeping Requirements	Reporting and recordkeeping requirements of section 93118.3 (g) of Title 17	Remained in effect for compliance years through December 31, 2022.
Annual Statements of Compliance	The annual statements of compliance for 2022 in section 93118.3 (g)(1)(A)(2) and (g)(2)(A)(3)	Due to the Executive Officer on March 1, 2023.
Wharfinger Data Reporting	Annual Wharfinger data from the ports under section 93118.3 (g)(3)	Due to the Executive Officer on April 1, 2023.
Compliance Recordkeeping	Recordkeeping of compliance records in section 93118.3 (g)(1)(B), (g)(2)(B), and (g)(3)(B)	Records required to be maintained for five years, through December 31, 2027.

166. When did the U.S. EPA grant approval for the 2020 At Berth Regulation?

The U.S. EPA issued a *Notice of Decision* granting CARB's authorization request for the Final Regulation Order Control Measure for Ocean-Going Vessels At Berth (2020 Regulation) pursuant to section 209(e) of the Clean Air Act on October 20, 2023.⁴² For detailed information related to U.S. EPA's authorization process, visit the U.S. EPA's official website.⁴³

167. What happened to the transition period that was outlined in the March 30, 2023, enforcement notice?

The March 30, 2023, Enforcement Notice (March 2023 Notice) outlined reporting and enforcement requirements during the "transition period," which spanned from January 1, 2023, through 30 days after the U.S. EPA published its issuance of authorization for the 2020 Regulation in the Federal Register. During the transition period, all vessel and terminal operators were able to select one of two paths described in the March 2023 Notice. Option 1 allowed regulated entities to opt for achieving the per-visit emission reduction provisions of the 2020 Regulation. Option 2 allowed regulated entities to opt for achieving the 80% reduction provisions specified in the 2007 Regulation. The two enforcement path options outlined in the March 2023 Enforcement Notice ceased to be effective at the conclusion of the transition period, which ended on November 19, 2023.

168. What is required after the transition period ended?

Beginning November 20, 2023, all regulated entities must follow and comply with the requirements set forth in the 2020 Regulation.

⁴²

<https://www.federalregister.gov/documents/2023/10/20/2023-23261/california-state-nonroad-engine-pollution-control-standards-ocean-going-vessels-at-berth-notice-of>

⁴³

<https://www.epa.gov/state-and-local-transportation/vehicle-emissions-california-waivers-and-authorizations#authorization>

169. How were updated VIEs and TIEs allocated at the end of the transition period?

CARB staff issued updated VIE and TIE allocations prior to the end of the transition period to vessel and terminal operators who chose Option 2 to ensure their availability for use when the transition period ends. These updated VIE and TIE allocations were prorated and excluded allocations for the transition period. The proration adjustment for this period equals the number of days from the transition period's conclusion through February 1, 2024 (74 days), divided by 396 days.

Interim Evaluation

170. What is the Interim Evaluation?

As set forth in section 93130.14(d), the *Interim Evaluation* is a report published by CARB that assessed the progress made in adopting control technologies for tankers and ro-ro vessels including the status of landside infrastructure improvements that may be needed to support emissions reductions at ro-ro and tanker terminals. The report assesses the feasibility of control requirements for bulk and general cargo vessels and vessels at anchor, and also evaluates the impacts of the global pandemic on the ability of the shipping industry and California ports to comply with the 2020 Regulation.

171. What kind of information was analyzed during the Interim Evaluation?

Staff utilized port and terminal plans and considered other public information provided to CARB including terminal specific engineering evaluations, logistical considerations, public engagement, and independent feasibility studies. All information submitted was considered in the drafting of the *Interim Evaluation Report*, including data on the state of technology, readiness to deploy, safety considerations, and cost-effectiveness.

172. How will CARB use the Interim Evaluation?

CARB staff submitted the findings and recommendations from the Interim Evaluation Report to CARB's Board on December 1, 2022, for their consideration and further direction regarding future amendments or rulemakings for ocean-going vessels.

173. When was the Interim Evaluation made available for public review?

The Interim Evaluation was made publicly available on *CARB's website* on December 1, 2022.