

Ports And Vessel Owners, Prep For New Calif. Emissions Regs

By **Robert Smith and Christina Elles** (August 31, 2022)

The California Air Resources Board has approved a resolution to amend its regulation on commercial harbor craft, or CHC — such as ferries, barges and sportfishing vessels — to reduce emissions and associated health risks at California's ports.

The amended CHC regulation applies new emissions reduction requirements to a broad range of vessel types, including tank barges, pilot vessels, workboats, research vessels, towing vessels, commercial passenger fishing vessels and commercial fishing vessels.

These new regulations may require owners of existing vessels to replace or retrofit engines over time, purchase new zero-emission capable hybrid vessels, use alternative fuels, or implement some combination of these alternatives. CARB will implement the amended CHC regulation from 2023 to 2034, and ports and vessel owners should begin preparing now for the regulation's new requirements.

History of the CHC Regulation

CARB is the California state agency charged with setting the state's air quality standards and establishing measures to reduce greenhouse gas emissions in an effort to combat climate change. CARB has regulated CHC emissions since it adopted the initial CHC regulation in 2008.[1]

The initial regulation applied to a subset of CHC, including ferries, excursion vessels, tugboats, towboats, push boats, crew and supply vessels, and certain barges and dredge vessels.[2] It applied to both new and existing engines.[3]

Under the initial regulation, covered CHC had to transition their diesel engines to cleaner U.S. Environmental Protection Agency Tier 2 or Tier 3 marine engine emission standards by 2022. Tier 1 is the earliest emission standard; Tier 4 is the cleanest, least-polluting standard.[4]

Additionally, new ferries carrying more than 75 passengers had to use best available control technology if they could not meet Tier 4 standards.[5] The initial CHC regulation was implemented from 2009 through 2022.

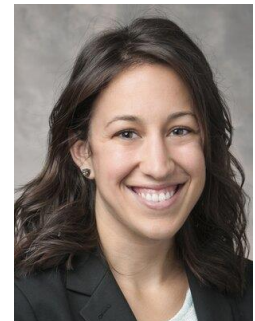
New Requirements Under the Amended CHC Regulation

The amended CHC regulation, approved on March 24, significantly broadens the types of vessels subject to its requirements, and it expedites the transition from Tier 2 and Tier 3 engines to even cleaner engines — Tier 3, Tier 4 or zero-emission.

The amended CHC regulation applies to vessels previously not subject to the initial CHC



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regulation, including tank barges, pilot vessels, workboats, research vessels, commercial passenger fishing vessels (i.e., sportfishing vessels) and commercial fishing vessels.[6]

Covered vessels must transition to cleaner combustion engines: zero-emission options where feasible (such as hybrid engines or fully electric vessels) and Tier 3 or Tier 4 engines on all other vessels (except for certain commercial fishing vessels).[7] The amended regulation also requires all covered vessels to use CARB-verified diesel particulate filters, or DPFs, as an exhaust system after-treatment.[8]

Additionally, the amended CHC regulation accelerates the adoption of electric shore power infrastructure for vessels. By Jan. 1, 2024, California port facility owners and operators that allow more than 50 vessel visits per year must provide shore power infrastructure sufficient to provide all auxiliary power needs, up to 99 kilowatts for each vessel docked at their facilities.[9]

Facility owners and operators who do not allow 50 vessel visits or more per year, and do not have shore power infrastructure for vessels, must submit an exemption request to CARB with records of the estimated vessel visits for the two years prior to Jan. 1, 2024.[10]

Facility owners and operators where zero-emission and advanced technology, or ZEAT, vessels dock or moor must allow, and cooperate with, ZEAT vessel owners and operators to facilitate the installation of charging or fueling infrastructure for the ZEAT vessels, although ZEAT vessel owners and operators are responsible for purchasing, installing and maintaining that infrastructure.[11]

Other requirements under the amended CHC regulation include, without limitation:

- New or newly acquired excursion vessels — e.g., whale watching or dinner cruises — must be built with zero emission capable hybrid technology starting Dec. 31, 2024.[12]
- All short-run ferries — i.e., those traveling less than 3 nautical miles over a single run — must be zero-emission by Dec. 31, 2025.[13]
- Engines cannot idle for more than 15 minutes when docked, or more than 30 minutes at the startup or new working shift.[14]
- Vessels must use at least 99% renewable diesel — i.e, R99 or R100.[15]

According to CARB, the requirements will be phased in from Jan. 1, 2023, through the end of 2032, with options for compliance flexibility or extensions — discussed in more detail below — through the end of 2034. Generally, the compliance schedule for covered vessels is as follows:

- Pre-Tier 1 and Tier 1 engines, except for commercial passenger fishing vessels: 2023 to 2025, with possible financial hardship and feasibility extensions through 2032.
- Ferries, except short-run, tugboat and pilot: 2024 to 2029, with possible financial hardship and feasibility extensions through 2034.

- Research vessels, commercial passenger fishing vessels (i.e., sportfishing vessels) and excursion vessels: 2026 to 2030, with possible financial hardship and feasibility extensions through 2034.
- Dredges, barges, crew/supply vessels and workboats: 2028 to 2031, with possible financial hardship and feasibility extensions through 2034.
- Commercial fishing vessels: 2030 to 2032.[16]

CARB estimates that by 2035, the amended CHC regulation will result in an 89% reduction of diesel soot, and a 54% reduction in nitrogen oxides.[17]

Commercial Fishing Vessel and Sportfishing Requirements

Unlike the initial CHC regulation, commercial fishing vessels are now subject to the amended CHC regulation. Starting Jan. 1, 2023, existing commercial fishing vessels with pre-Tier 1 or Tier 1 engines must upgrade to Tier 3 engines by specific compliance dates — in some cases, as early as 2030 — depending on the engine model year.[18]

Commercial fishing vessels that have engines meeting Tier 2 requirements do not have to upgrade to Tier 3.[19] Also starting Jan. 1, 2023, new commercial fishing vessels must be built with Tier 3 or Tier 4 engines.[20]

After receiving feedback from stakeholders, CARB agreed to further modify the amended CHC regulation to allow for additional flexibility and extensions for commercial passenger fishing vessels to address specific concerns raised by the sportfishing industry. These vessels were not required to upgrade to Tier 2 or Tier 3 engines under the initial CHC regulation.

Given that commercial passenger fishing vessels are often constructed out of wood or fiberglass, sportfishing stakeholders raised concerns regarding the compatibility, and feasibility, of retrofitting wood or fiberglass hulls with Tier 4 engines and DPFs.[21] In response, CARB agreed to modify the amended CHC regulation, so that commercial passenger fishing vessels that install Tier 3 engines by the end of 2024 can receive a 10-year extension to meet Tier 4 engine and DPF requirements, or zero-emission requirements, by the end of 2034.[22]

Compliance Flexibility and Extensions for Amended CHC Regulation

To address concerns regarding expensive or unavailable technology, the amended CHC regulation contains several alternative compliance strategies and extension options.[23] For instance, CARB may grant up to two two-year extensions if a vessel owner demonstrates that no certified engines or DPFs are available to meet the new performance standards by the required compliance date.[24]

CARB may also grant two-year extensions, for a total of up to six years, if a vessel owner demonstrates that no suitable certified engines or DPFs physically fit within the existing vessel structure, and the purchase of a replacement vessel with compliant engines is not financially possible.[25]

Owners of vessels that do not meet the amended regulation's performance standards may

apply for a low-use exception to operate the vessels on a limited basis each year.[26] Vessels that are newly acquired after Jan. 1, 2023, are not eligible for the low-use exception.[27]

Impacts on California Ports, the Fishing Industry and Other Maritime Stakeholders

Given that the compliance schedule for the amended CHC regulation begins Jan. 1, 2023, owners and operators of commercial harbor craft, as well as California port facility owners and operators, should begin assessing their obligations and potential costs under the amended regulations as soon as possible. Below, we discuss some of the potential considerations.

First, the regulations will have a significant impact on thousands of existing vessels that operate in California waters — most of which will be required to upgrade their engines over the next decade in order to be in compliance with these new emissions requirements.

Second, these regulations must also be carefully considered by all maritime companies in the acquisition and construction of new vessels that may now or in the future operate in California waters.

Third, many California port facility owners and operators will need to invest in additional shoreside infrastructure to satisfy the requisite shoreside power requirements under these regulations — as well as take steps to implement cost sharing or other agreements with owners and operators of regulated vessels.

More broadly, these new requirements must be carefully considered during mergers and acquisitions involving any maritime corporation that operates vessels using California ports or that owns or operates port facilities in California.

Finally, if owners and operators of regulated vessels believe that they will be unable to meet the deadlines required by CARB, they should begin to compile information regarding technical or economic infeasibility, to inform and support an application for an extension or other relief available under the new regulations.

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[1] See Cal Code Regs. tit. 17, § 93118.5.

[2] See, e.g., id. § 93118.5(e)(6).

[3] Id. § 93118.5(e)(4)-(6).

[4] Id.

[5] Id. § 93118.5(e)(4)-(5).

[6] See Cal. Air Res. Bd., Final Regulation Order, Proposed Amendments to the Commercial Harbor Craft Regulation (July 21, 2022), <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2021/chc2021/fro.pdf> [hereinafter, Final Regulation Order].

[7] See Final Regulation Order, § 93118.5(e)(8)-(12).

[8] Id. § 93118.5(e)(9), (12).

[9] Id. § 93118.5(i)(1).

[10] Id. § 93118.5(i)(1)(D).

[11] Id. § 93118.5(i)(2)-(3).

[12] Id. § 93118.5(e)(10)(A).

[13] Id.

[14] Id. § 93118.5(h)(1).

[15] Id. § 93118.5(e)(7).

[16] This compliance schedule is subject to confirmation once the proposed rules are approved by the Office of Administrative Law, which conducts a final review of the regulations prior to publication.

[17] See Press Release, Cal. Air Res. Bd., CARB passes amendments to commercial harbor craft regulation (March 24, 2022), <https://ww2.arb.ca.gov/news/carb-passes-amendments-commercial-harbor-craft-regulation> [hereinafter, CARB CHC Regulation Press Release].

[18] Final Regulation Order, § 93118.5(e)(13)(A). Engines with a model year of 1987 and earlier must upgrade to Tier 3 engines by Dec. 31, 2030, engine model years 1988 to 1997 must comply by Dec. 31, 2031, and engine model years 1998 and later must comply by Dec. 31, 2032.

[19] Id.

[20] Id. § 93118.5(e)(13)(B).

[21] See, e.g., Transcript of March 24, 2022, CARB Meeting, 156-57 (testimony of David Quiros, TTD Freight Technology Section Manager), <https://ww2.arb.ca.gov/sites/default/files/barcu/board/mt/2022/mt032422.pdf>.

[22] See CARB CHC Regulation Press Release; see also Final Regulation Order, § 93118.5(e)(12)(E).3.a.

[23] See Final Regulation Order, § 93118.5(f) (listing various alternatives a person can apply for to achieve equivalent or additional emission reductions).

[24] Id. § 93118.5(e)(12)(E).2.

[25] Id. § 93118.5(e)(12)(E).3.b-c.

[26] Id. § 93118.5(e)(14). For example, pre-Tier 1 engines that are granted a low-use exception can only operate for 40 hours within two miles of disadvantaged communities, or 80 hours per year in all other areas.

[27] Id. § 93118.5(e)(14)(B)(4).