



Commercial Harbor Craft 2022 Amendments

California Code of Regulations, Title 17, Section 93118.5

CHC Factsheet: Zero Emission & Advanced Technology Requirements

Date: December 27, 2022

Specific details on the Commercial Harbor Craft Zero Emission & Advanced Technology (ZEAT) requirements can be found in the [regulation text subsection \(e\)\(10\) Requirements for Zero-Emission and Advanced Technologies \(ZEAT\) for New, Newly Acquired and In-Use Short-Run Ferries, and New and Newly Acquired Excursion Vessels \(Applicable On and After January 1, 2023\) \(CCR Title 17, section 93118.5\)](#). In the case of any discrepancy between this document and the regulation order, the regulation language applies.

Important Definitions

- **“ZEAT”** refers to Zero-Emission and Advanced Technology, which collectively includes zero-emission capable hybrid, and zero-emission vessels.
- **“Zero-Emission”** means a propulsion system, auxiliary power system, and/or vessel utilizing a propulsion and auxiliary power system that has no tailpipe exhaust emissions other than water vapor or diatomic nitrogen from the onboard source(s) of power.
- **“Zero-Emission Capable Hybrid Vessel”** means a commercial harbor craft (CHC) utilizing a power system with two or more onboard power sources, one or more of which is approved by CARB’s Executive Office to be capable of providing a minimum of 30 percent of vessel power required for main propulsion and auxiliary power operation with zero tailpipe emissions when averaged over a calendar year.
- **“Zero-Emission Infrastructure”** means installed dockside infrastructure necessary to support operation of a ZEAT vessel. For example, charging equipment for propulsion system batteries, and on-dock hydrogen storage tanks, and fueling infrastructure.

Zero-Emission and Advanced Technologies (ZEAT) for New, Newly Acquired and In-Use Short-Run Ferries, and New and Newly Acquired Excursion Vessels

Requirements

On or after the dates shown in Table 1, all internal combustion engines, regardless of fuel type, must meet the following requirements:

- After the compliance date, all engines must meet the most stringent marine standard (Tier 3 or 4).
- Operation of engines on short run ferries is limited to 20 hours/year unless performing a second vocation or emergency operations^a, and records must be kept.

Table 1^b: Compliance Dates for Zero-Emission and Advanced Technologies

Marine Technology Type	Vessel Category Requirement	ZEAT Required Starting On
Zero-Emission Capable Hybrid	New and Newly Acquired Excursion Vessels	December 31, 2024
Zero-Emission	New, Newly Acquired and In-Use Short-Run Ferries	December 31, 2025

Application

Before adopting ZEAT, a person must submit an application to, and receive approval from CARB. ZEAT applications must be submitted at least 18 months prior to the compliance date and include at a minimum the following information:

- Identification of the applicant, vessel, and engine(s)
- Demonstration of meeting the required performance standards for zero-emission capable hybrids or full zero-emission.
- Information and plans regarding charging or fueling infrastructure
- The proposed recordkeeping, reporting, monitoring, and if applicable, testing procedures, that the applicant plans to use to demonstrate continued effectiveness of the ZEAT.

Application templates will be made available on the [CHC website](#).

Facility Infrastructure Requirements for Facility Owner/Operators and Vessel Owner/Operators:

- Facilities where ZEAT vessels dock or moor must allow the installation of charging or fueling infrastructure needed to power such ZEAT vessels.
- Facility owners/operators are jointly responsible for cooperating with vessel owners/operators to allow for surveying, permitting, construction, installation, and maintenance of the necessary charging or fueling infrastructure required to effectively operate ZEAT vessels.

^a "Emergency Operation" refers to performing emergency response duties as defined in Subsection (d).

^b Table 14 in the Regulation Text

- ZEAT vessel owners/operators own and are responsible for purchasing, installing, and maintaining ZEAT infrastructure.

Alternative Control of Emissions (ACE)

Using the Alternative Control of Emissions (ACE) is a compliance pathway for those with plans to achieve equivalent or greater emissions reductions than if they were to comply directly with the model year-based compliance schedule. Alternative emission control strategy(ies) (AECS) may include zero emission strategies, such as:

- a) ZEAT deployment in vessel categories where ZEAT is not required; or
- b) fleet averaging, including ZEAT vessels unless they have been separately used to generate or receive a ZEAT credit.

For more information on ACE, see the [CHC Factsheet: ACE](#).

Extension E1: Shore Power and ZEAT Infrastructure Delays

Operators experiencing delays in shore power or ZEAT infrastructure installation may apply for a one-year compliance extension through extension E1. Initial applications must be submitted to CARB at least 9 months prior to compliance dates, and renewal is available for one additional one-year extension. For more information on extension E1 and other extensions, see the [CHC Factsheet: Compliance Extensions](#).

Zero-Emission Capable Hybrid Vessels

Zero-Emission Capable Hybrid Vessels utilize power sources capable of providing a minimum of 30 percent of vessel power required for main propulsion and auxiliary power operation with zero tailpipe emissions when averaged over a calendar year. An attachment to this factsheet explaining how to check that your vessel meets the 30 percent requirement is available on the [CARB website](#), along with a fillable spreadsheet to assist in these calculations.