



Compliance Guideline for the Commercial Harbor Craft Regulation

What is the Commercial Harbor Craft Regulation?

The purpose of the Commercial Harbor Craft Regulation (regulation) is to reduce emissions of diesel particulate matter (diesel PM) and oxides of nitrogen (NO_x) from diesel engines used on commercial harbor craft operated in California Regulated Waters. California Regulated Waters are all internal waters, estuarine waters, ports and coastal waters within 24 nautical miles of the California coast. The regulation includes requirements for new and in-use (existing) engines as well as monitoring, recordkeeping, and reporting requirements. Additional information about this regulation is available at <http://www.arb.ca.gov/ports/marinevess/harborcraft.htm>. The regulatory documents, including the text of the regulation, may be found at <http://www.arb.ca.gov/regact/2007/chc07/chc07.htm>.

What is the status of this regulation?

The California Air Resources Board (ARB) approved the regulation for adoption on November 15, 2007, and on October 20, 2008, the Office of Administrative Law approved the final regulation and filed it with the Secretary of State. The regulation will become effective on January 1, 2009.

Who will have to comply with the regulation?

All owners/operators of commercial harbor craft that operate in California Regulated Waters, including ports and internal, estuarine, and coastal waters, will be required to comply with this regulation. Commercial harbor craft include, but are not limited to, ferries, excursion vessels, tugboats (including ocean-going tugboats), towboats, crew and supply vessels, work boats, pilot vessels, barges, and commercial and charter fishing boats.

What will commercial harbor craft owners/operators need to do to comply with this regulation?

- Beginning January 1, 2009, all commercial harbor craft owners/operators will be required to install (if not already installed) a non-resettable hour meter on each engine of their vessel and keep records of engine and vessel operation. They will be required to submit an initial report to the ARB by February 28, 2009, providing vessel and engine information, as outlined in the text of the regulation. All vessel owners/operators will need to keep a copy of the initial report and their yearly records on the vessel or in a central dockside location to be made available upon request by ARB staff.
- Beginning January 1, 2009, all diesel engines on commercial harbor craft must be fueled with CARB diesel fuel (sulfur content less than or equal to 15 parts per million), an alternative diesel fuel (such as biodiesel, water emulsions in diesel, etc.), or diesel fuels and/or additives that have received ARB verification.
- Engines on all new commercial harbor craft vessels will be required to meet the United States Environmental Protection Agency (U.S. EPA) marine engine emission standards (standards) in effect at the time of vessel acquisition.
- All owners/operators replacing an engine on their existing harbor craft vessel will be required to install an engine that meets the U.S. EPA standards in effect at the time of engine acquisition. There are additional requirements for propulsion engines on new ferries.
- Owners/operators of ferries, excursion vessels, tugboats, and towboats must comply with additional in-use engine requirements per a compliance schedule (see page 3).

Are barges considered harbor craft?

Yes; barge vessels are considered commercial harbor craft. Vessel engines that were registered with ARB's Portable Engine Registration Program (PERP) or permitted through the local air districts before January 1, 2009, are exempted from the regulation. Vessel engines that are registered with PERP on or after January 1, 2009, and are not permanently affixed to the vessel are also exempt. All other barge engines are subject to the requirements of the regulation.

Will I have to file a report to ARB any time other than for the initial report?

Yes; owners/operators will need to file a report if:

- owners/operators acquire a commercial harbor craft vessel or an engine for one of their vessels; or
- a vessel operating at any time as a ferry, excursion vessel, tugboat, or towboat significantly changes annual hours of operation (i.e. the total annual hours of operation drop below 300 hours or rise from below 300 hours to above 300 hours, or similarly, the annual hours of operation drop or rise below or above 1500 hours).

Owners/operators of ferries, excursion vessels, tugboats, and towboats must also file a report by February 28 of the required compliance year indicating their plan for complying with the in-use engine requirements. An additional report is required to demonstrate how they have complied, once compliance is complete.

Can I buy a vessel that is not new?

Yes; the owner/operator of a newly acquired vessel that has previously been in use, either in California or elsewhere, will have to comply with monitoring, reporting, and recordkeeping requirements. If the vessel operates as a ferry, excursion vessel, tugboat, or towboat, and if any of the engines are Tier 1 or earlier (pre-2004, or model years 2004 through 2006, depending on engine size), the engine will be required to meet the in-use engine requirements per the compliance schedule. The regulation requires these engines to meet the U.S. EPA current model year marine engine standards through engine replacement, modification, or retrofit. The U.S. EPA marine engine standards, including Tier 1, can be found in the regulation, pages 14 through 18:

<http://www.arb.ca.gov/regact/2007/chc07/rev93118.pdf>.

Can I replace an engine on my in-use vessel with an engine that is not new?

Owners/operators may replace an engine with an engine which is not new only if that engine meets the U.S. EPA current model year standards in effect at the time the vessel owner/operator acquires the engine for installation.

What are the additional requirements for new ferry vessel propulsion engines?

The propulsion engines on all new ferries acquired after January 1, 2009, with capacity for 75 or more passengers, must meet the applicable Tier 2 or Tier 3 standards in effect at the time of acquisition and additionally, must have the best available control technology (BACT) installed. Alternatively, ferry vessel owners/operators may comply with the regulation by installing propulsion engines that meet the Tier 4 standards.

What are the additional in-use engine requirements for ferries, excursion vessels, tugboats, and towboats?

The regulation requires that in-use Tier 1 and earlier propulsion and auxiliary diesel engines on a vessel operating as a ferry, excursion vessel, tugboat, or towboat meet emission limits equal to or cleaner than U.S. EPA standards (Tier 2 or Tier 3) in effect at the time the engine is brought into compliance. Once an engine meets either the Tier 2 or Tier 3 standards, the engine is considered to be compliant. Engines that operate less than 300 hours annually are exempt from this requirement.

What if a vessel is used for more than one purpose?

All uses of the vessel must be reported in the initial report. If a vessel is used at any time during the year as a ferry, excursion vessel, tugboat, or towboat, the vessel's engines will be required to meet the in-use engine requirements per the compliance schedule. The vessel's total annual hours of operation will be used to determine the compliance dates, per the compliance schedule.

When will in-use diesel engines on ferries, excursion vessels, tugboats, or towboats be required to comply?

Compliance dates for these in-use engines are based on the engine model year and the annual operating hours. The oldest, highest-use engines will be required to comply first. The regulation has two compliance schedules: one schedule (Table 1) for vessels with home ports outside of the South Coast Air Quality Management District (SCAQMD), and an accelerated schedule (Table 2) for vessels with home ports within the SCAQMD. The first compliance date is December 31, 2009.

Table 1. Compliance Dates for Vessels* with Homeports Outside SCAQMD

Engine Model Year	Total Annual Hours of Operation	Compliance Date
1975 and earlier	≥ 1500	12/31/2009
1975 and earlier	≥300 and < 1500	12/31/2010
1976 - 1985	≥1500	12/31/2011
1976 - 1985	≥ 300 and < 1500	12/31/2012
1986 - 1995	≥ 1500	12/31/2013
1986 - 1995	≥ 300 and < 1500	12/31/2014
Ferries Only 1996 - 1999	≥ 300	12/31/2014
Vessels Other Than Ferries 1996 - 1999	≥ 1500	12/31/2015
Vessels Other Than Ferries 1996 - 1999	≥ 300 and < 1500	12/31/2016
2000	≥ 1500	12/31/2015
2000	≥ 300 and < 1500	12/31/2016
2001 - 2002	≥ 300	12/31/2017
2003	≥ 300	12/31/2018
2004	≥ 300	12/31/2019
2005	≥ 300	12/31/2020
2006	≥ 300	12/31/2021
2007	≥ 300	12/31/2022

(*) Compliance dates applicable only to vessels operating at any time as a ferry, excursion vessel, tugboat, or towboat.

[Note: For example, if a 1982-model year diesel engine on a tugboat operating in Regulated California Waters is used for 750 hours in 2011, the owners/operators must bring the engine into compliance with the in-use engine requirements by December 31, 2012.]

Table 2. Compliance Dates for Vessels* with Homeport in SCAQMD

Engine Model Year	Total Annual Hours of Operation	Compliance Date
1979 and earlier	≥ 300	12/31/2009
1980 – 1985	≥ 300	12/31/2010
1986 – 1990	≥ 300	12/31/2011
1991 – 1995	≥ 300	12/31/2012
1996 – 2000	≥ 300	12/31/2013
2001	≥ 300	13/31/2014
2002	≥ 300	12/31/2015
2003	≥ 300	12/31/2016
2004	≥ 300	12/31/2017
2005	≥ 300	12/31/2018
2006	≥ 300	12/31/2019
2007	≥ 300	12/31/2020

(*) Compliance dates applicable only to vessels operating at any time as a ferry, excursion vessel, tugboat, or towboat.

[Note: For example, if a 1982-model year diesel engine on a tugboat operating in Regulated California Waters is used for 300 or more hours in 2009, the owners/operators must bring the engine into compliance with the in-use engine requirements by December 31, 2010.]

How do I determine engine model year?

In most cases, the engine's actual model year of manufacture will be used to determine the required compliance date. However, if certain steps have been taken to reduce the emissions of the engine, an "effective model year" may be calculated based on the following:

- if an emissions control strategy has been implemented that obtains at least a 25% reduction of either diesel PM or NO_x, the effective model year may be calculated as the actual model year of manufacture plus five years (this is referred to as the "Engine Model Year +5" method); or
- if it is demonstrated that the engine has been rebuilt to Tier 1 standards or cleaner prior to January 1, 2008, the date of rebuild may be used as the engine's effective model year (this is referred to as the "Engine's Tier 1 Rebuild Model Year" method).

Is engine replacement the only way to comply with the in-use engine requirements for ferries, excursion vessels, tugboats, and towboats?

No; there are two other options that may be used to comply:

- demonstrate that the current engine already meets the Tier 2 or Tier 3 standards that are in effect at the time of compliance (i.e., through engine rebuild or by implementing an emission control strategy); or
- demonstrate that the engine operates less than 300 hours per year.

The regulation also includes an alternative control of emissions (ACE) option that will allow harbor craft owners/operators to use alternative strategies to reduce the emissions from their fleet. The owners/operators must demonstrate that the emission reductions achieved with the alternative controls will be equivalent to, or exceed, the reductions obtained by direct compliance with the regulation. Alternative strategies may include engine modifications, exhaust after-treatment control, engine repower, using alternative fuels or fuel additives, or fleet averaging. ACE applications must be made available for public review and comment prior to being considered by the ARB Executive Officer for approval. Until such approval is granted, the owners/operators must meet the specific in-use engine requirements in the regulation.

Where can I find more information about the regulation?

The regulation, accompanying staff report, technical support document, and other documents can be accessed on our website at <http://www.arb.ca.gov/regact/2007/chc07/chc07.htm>. If you have specific questions or comments about the regulation or supporting documents, please contact Todd Sterling at 916-445-1034 (e-mail: tsterling@arb.ca.gov), Cherie Rainforth at 916-327-7213 (e-mail: crainforth@arb.ca.gov), or visit our web site at <http://www.arb.ca.gov/harborcraft>.

For additional general information:

Please contact ARB's diesel hotline at (866) 6DIESEL (634-3757). You may also obtain this document in an alternative format by contacting ARB at: (916) 322-4505 (voice); (916) 324-9531 (TDD, Sacramento area only); (800) 700-8326 (TDD, outside Sacramento). TTY/TDD/Speech-to-Speech users may dial 711 for the California Relay Service.