



# Attachment II to the Opacity Testing Factsheet: FAQ - Alternative Compliance Methods

**Date:** March 20, 2024

Specific details on the opacity testing and emission control repair requirements can be found in the [regulation text subsection \(k\) Opacity Testing and Emission Control Repair Requirements \(CCR Title 17, section 93118.5\)](#). In the case of any discrepancy between this document and the regulation order, the regulation language applies.

## Frequently Asked Questions (FAQ) on Opacity Testing Requirements and Alternative Compliance Methods

### 1. What if a harbor craft operator is unable to complete the commercial harbor craft (CHC) opacity testing procedure and report CHC opacity testing results to CARB by the March 31, 2024 reporting deadline?

CARB's Enforcement Division considers all available information when evaluating regulatory compliance. Therefore, in circumstances where certified commercial CHC opacity testing services are unavailable or testing is unable to be completed prior to the deadline, vessel operators should maintain records documenting their efforts to obtain opacity testing services. In cases where services cannot be obtained, vessel operators may consider maintaining records that explain the lack of available CHC opacity testing services in the operating location or region, including a list of the commercial opacity testing vendors that were contacted but could not provide services. CARB CHC Program staff suggests the vessel owner or operator retain records documenting their effort to contact third party opacity testing vendors with coverage in the applicable operating region. Any other records that may demonstrate efforts taken to comply by applicable deadlines may also be kept. Such records could include scheduling and/or paying for opacity testing by the March 31, 2024 deadline with a California Council on Diesel Education and Technology (CCDET)-certified vendor, documentation of completion of CCDET training and purchase of an opacity testing meter, or submission of an alternative compliance methodology under subsections (k)(1)(D) or (k)(1)(E).



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### **2. What if my harbor craft has engine exhausts in a configuration where CCDET certified opacity testing vendors are demonstrably unable to complete CARB's CHC opacity testing procedure, including due to wet exhaust configurations?**

Operators may utilize applicable alternative compliance methods allowed under Subsection (k)(1)(D) as specified below under Acceptable Alternative Compliance Methods and Procedures to Utilize.

### **3. What if my articulated tug barge (ATB) combination vessel presents logistical challenges and is demonstrably unable to complete CARB's CHC Opacity Testing Procedure?**

Depending on main engine Category, ATB operators may utilize applicable alternative compliance methods allowed under Subsection (k)(1)(D) or (k)(1)(E) as specified below under Acceptable Alternative Compliance Methods and Procedures to Utilize.

### **4. What if my fleet operates other vessel types having large displacement Category 2 or 3 engines that may have measurable opacity over 40%, but can otherwise be inspected by certified engine technicians and found to be properly maintained and operating within engine original equipment manufacturer (OEM) specified parameters or have valid IAPP/EIAPP certification and technical files supporting OEM-specified engine maintenance schedules have been followed?**

Operators of non-ATB vessels with Category 2 or 3 main propulsion engines may utilize applicable alternative compliance methods allowed under Subsection (k)(1)(E) as specified below under Acceptable Alternative Compliance Methods and Procedures to Utilize.

#### **Acceptable Alternative Compliance Methods and Procedures to Utilize for:**

1. Vessels with Category 1 engines and/or wet exhaust systems.
  2. Articulated tug barge (ATB) vessel combinations with Category 1, 2, or 3 main propulsion engines.
  3. Other vessel types having Category 2 or Category 3 main propulsion engines.
1. Vessels with Category 1 Engines and/or Wet Exhaust Systems with applicability under (k)(1)(D):
    - CARB will consider the following alternative pathway to meet the intent of (k)(1)(D): The vessel owner/operator or CCDET-certified opacity testing vendor may submit to the CHC Program Inbox a completed Opacity Reporting Template including an attached written explanation and photos of the exhaust configuration to CARB CHC Program demonstrating that opacity testing cannot be performed in the current



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configuration along with attached signed/certified documentation their engines have passed an inspection conducted by one of the following:

- Certified marine engine dealer or distributor service personnel;
- Type classification society surveyors or engineers; or
- CCDET-certified opacity testing vendor technicians having valid and current American Boat and Yacht Council (ABYC) Diesel Engine Certification.

For CARB to consider the inspection passed, the documentation should attest the engine is compliant with all the following criteria:

### **Alternative Compliance Methods - Engine Inspection Criteria**

- Engine is properly maintained and operating within applicable engine OEM-specified parameters including a written explanation, supporting documentation such as maintenance logs, and/or a list of inspection points performed to support this determination;
  - Has no active emissions-related fault codes present;
  - Has no active or intermittent cylinder misfires or emissions control subsystem faults;
  - Has no visible blue or white smoke output; and
  - If equipped with a diesel particulate filter, filter substrates are intact and engine exhaust backpressure does not exceed applicable engine OEM specifications for allowable exhaust backpressure when operating at maximum rated engine power.
- Specific alternative testing procedures and criteria may also be used under (k)(1)(D), if approved by CARB.
  - Individuals submitting attestations should be the same certified individual who conducted the engine inspection.
  - Engine inspections conducted for use of alternative compliance methods should be conducted within the allowable timelines prior to compliance deadlines specified in the CHC Regulation.
2. Articulated tug barge (ATB) vessel combinations with Category 1, 2, or 3 main propulsion engines.
- CARB staff are aware some ATBs operating in Regulated California Waters (RCW) may utilize Category 1 main propulsion engines. Therefore, specific alternative testing procedures and criteria may also be used under (k)(1)(D) for ATBs.
  - For ATB vessels with Category 1 main propulsion engines, operators or CCDET-certified opacity testers may submit documentation including a completed Opacity Reporting Template and a written explanation to the CHC Program Inbox specifying the operator is utilizing the alternative compliance method under (k)(1)(D).



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The submission should explain why the ATB vessel cannot logistically complete CARB's opacity testing procedure requirement and include signed/certified attestations or equivalent documentation that the engines have been inspected by eligible certified personnel and found to meet the engine inspection criteria stated above. Photos of ATB dry exhaust systems are not necessary for alternative compliance under (k)(1)(D).

- For ATBs with Category 2 or 3 engines with applicability under subsection (k)(1)(E) where engines may be unable to meet the opacity limits specified in the CHC Regulation, operators may submit a completed Opacity Reporting Template that includes one of the following two document packages:
  - A. Signed/certified attestations or equivalent documentation that the engines have been inspected by eligible certified personnel and found to be in proper operating condition as specified in (k)(1)(E). CARB recommends using the **Alternative Compliance Methods - Engine Inspection Criteria** outlined above to establish that the engine is in proper operating condition. This attestation may be completed by the following certified personnel:
    - Certified marine engine dealer or distributor service personnel;
    - Type classification society surveyors or engineers; or
    - CCDET-certified opacity testing vendor technicians having valid and current American Boat and Yacht Council (ABYC) Diesel Engine Certification; or,
  - B. Valid and current International Maritime Organization (IMO) vessel international air pollution prevention (IAPP) certificates, associated engine technical files, and engine international air pollution prevention (EIAPP) certificates.
- 3. Other Vessel types having Category 2 or 3 Main Propulsion engines:
  - Other vessel types with Category 2 or 3 engines unable to meet opacity limits specified in the CHC Regulation may utilize either of the two alternative compliance method options, A or B, outlined above for articulated tug and barge (ATB) combination vessels under (k)(1)(E).

### Resources

[FAB24-001 - CCDET IV Opacity Smoke Tester Vendor List.pdf \(ca.gov\)](#)

[CHC Reporting Templates | California Air Resources Board](#)