

Appendix A

Proposed Regulations for Commercial Harbor Craft

PROPOSED REGULATION ORDER

EMISSION LIMITS AND REQUIREMENTS FOR DIESEL ENGINES ON COMMERCIAL HARBOR CRAFT OPERATED WITHIN CALIFORNIA WATERS AND 24 NAUTICAL MILES OF THE CALIFORNIA BASELINE

Adopt new section 2299.5, title 13, chapter 5.1, California Code of Regulations (CCR), to read as follows:

(Note: The entire text of section 2299.5 is new language.):

Section 2299.5. Low Sulfur Fuel Requirement, Emission Limits and Other Requirements for Commercial Harbor Craft.

(a) *Purpose.*

The purpose of this section is to reduce diesel particulate matter (PM), oxides of sulfur (SO_x), and oxides of nitrogen (NO_x) from diesel propulsion and auxiliary engines on harbor craft that operate in any of the waters subject to this section ("Regulated California Waters"). This section implements provisions of the Goods Movement Emission Reduction Plan, adopted by the Air Resources Board (ARB) in April 2006, to reduce emissions and health risk from ports and the movement of goods in California.

(b) *Applicability.*

- (1) Except as provided in subsections (b) and (c), this section applies to any person who sells, supplies, offers for sale, purchases, owns, operates, leases, charters, or rents any new or in-use diesel fueled harbor craft that is operated in any of the Regulated California Waters.
- (2) In the event a harbor craft and its engine(s) are subject to the requirements of this section, and either the regulation for portable compression ignition (CI) engines and equipment (sections 93116-93116.5, title 17, California Code of Regulations (CCR)), or the regulation for off-road CI engines and equipment (sections 2420-2427, title 13, CCR), the requirements of this section shall supersede those of the other two regulations for all engines on the vessel that are permanently affixed to the vessel (i.e., the engine, its fueling system, or its exhaust system is welded or otherwise physically connected to the vessel or other vessel system in such a way that the engine cannot be easily removed for use in a land-based application without modifications).
- (3) This section applies to towboats and tugboats engaged in or intending to engage in the service of pulling, pushing or hauling alongside tank vessels or tank barges.

- (4) Notwithstanding the provisions of title 13, CCR, section 2299.1 and title 17, CCR, section 93118, this section shall apply to any ocean-going tugboats and towboats and shall supersede the requirements of 13 CCR 2299.1 and 17 CCR 93118 in their entirety for ocean-going tugboats and towboats. For purposes of this paragraph, “ocean-going tugboats and towboats” shall mean tugboats and towboats with a “registry” (foreign trade) endorsement on its United States Coast Guard certificate of documentation, or tugboats and towboats that are registered under the flag of a country other than the United States.
- (5) Nothing in this section shall be construed to amend, repeal, modify, or change in any way any other applicable State, U.S. Coast Guard, or other federal requirements. Any person subject to this section shall be responsible for ensuring compliance with both U.S. Coast Guard regulations and the requirements of this section and any other applicable State and federal requirements, including but not limited to, obtaining any necessary approvals, exemptions, or orders from the U.S. Coast Guard.
- (6) This section shall not apply to any engine and equipment that fall within the scope of the preemption of Section 209(e)(1)(A) of the Federal Clean Air Act (42 U.S.C. 7543(e)(1)(A)) and as defined by regulation of the U.S. Environmental Protection Agency.

(c) *Exemptions.*

All or portions of this section do not apply to the following , as provided below, but vessels that are partly or wholly exempt from this section may be subject to other State and federal regulations and requirements. All other portions of this section shall apply unless otherwise specified:

- (1) Harbor craft whose voyages are comprised of continuous and expeditious navigation through any of the Regulated California Waters for the purpose of traversing such bodies of water without entering California internal or estuarine waters or calling at a port, roadstead, or terminal facility are exempt from this section in its entirety. “Continuous and expeditious navigation” includes stopping and anchoring only to the extent such stopping and anchoring are required by the U.S. Coast Guard; rendered necessary by force majeure or distress; or made for the purpose of rendering assistance to persons, ships, or aircraft in danger or distress. This exemption does not apply to the passage of a harbor craft that engages in any of the prejudicial activities specified in United Nations Convention on the Law of the Seas (UNCLOS) 1982, Article 19, subpart 2. Further, notwithstanding any Coast Guard mandated stops or stops due to force majeure or the rendering of assistance, this exemption does not apply to a vessel that was otherwise scheduled or intended to enter California internal or estuarine waters or call at a port, roadstead or terminal facility;
- (2) Temporary replacement vessels are exempt only from the requirements set forth in subsection (e)(6) and only upon written approval by the California Air

Resources Board's Executive Officer (E.O.). All other provisions in this section shall apply to temporary replacement vessels subject to this paragraph. An owner or operator, who has or will have a vessel taken out of service, may apply in writing to the E.O. to operate a temporary replacement vessel pursuant to the following:

- (A) The E.O. shall approve or disapprove such a request within 15 days of receipt. The E.O. shall not unreasonably withhold approval of the request to operate the temporary replacement vessel;
- (B) If the approval is granted, the temporary replacement vessel's operating time will be specified in the approval by the E.O., along with any other terms, conditions or requirements the E.O. deems necessary, but in no case shall the approved operating time in Regulated California Waters for a specific temporary replacement vessel exceed one year total for any single vessel that is temporarily replaced; and
- (C) No temporary replacement vessel exemptions shall be approved for a vessel that is taken out of service more than 12 months in any 24-month period or if the E.O. cannot determine the length of time a vessel has been taken out of service within any 24-month period.

(3) Temporary replacement vessels (SCAQMD) are exempt only from the compliance dates set forth in Table 8 of subsection (e)(6) and only upon written approval from the ARB's Executive Officer (E.O.). All other provisions in this section, including but not limited to, the compliance dates specified in Table 7 of subsection (e)(6), shall apply to temporary replacement vessels subject to this paragraph. An owner or operator, who has or will have a vessel taken out of service, may apply in writing to the E.O. to operate a temporary replacement vessel pursuant to the following:

- (A) The E.O. shall approve or disapprove such a request within 15 days of receipt. The E.O. shall not unreasonably withhold approval of the request to operate the temporary replacement vessel;
- (B) If the approval is granted, the temporary replacement vessel's operating time will be specified in the approval by the E.O., along with any other terms, conditions or requirements the E.O. deems necessary, but in no case shall the approved operating time in Regulated California Waters for a specific temporary replacement vessel exceed one year total for any single vessel that is temporarily replaced; and
- (C) No temporary replacement vessel exemptions shall be approved for a vessel that is taken out of service more than 12 months in any 24-month period or if the E.O. cannot determine the length of time a vessel has been taken out of service within any 24-month period;

(4) Temporary emergency rescue/recovery vessels are exempt from this section in its entirety;

- (5) Recreational vessels are exempt from this section in its entirety;
- (6) Ocean-going vessels, except for ocean-going tugboats and towboats as provided in subsection (b)(4), are exempt from this section in its entirety;
- (7) The following portable engines are exempt from this section in its entirety:
 - (A) All vessel engines, including engines on barges, that are registered with ARB's Portable Engine Registration Program (PERP) (sections 2450 through 2465, title 13, CCR) before January 1, 2009;
 - (B) All vessel engines that are registered with PERP on or after January 1, 2009 and are not permanently affixed to the vessel (i.e., the engine, its fueling system, and its exhaust system are not welded or otherwise physically connected to the vessel or other vessel system, which permits the engine to be easily removed for use in a land-based application without modifications); and
 - (C) All vessel engines that are registered and permitted under local air district regulations before January 1, 2009.
- (8) Registered historic vessels are exempt only from subsection (e)(6);
- (9) U.S. Coast Guard vessels are exempt from this section in its entirety;
- (10) Military tactical support vessels are exempt from this section in its entirety;
- (11) Engines rated less than 50 horsepower are exempt only from subsection (e)(6); and
- (12) Engines and vessels that are operated less than 300 hours per calendar year shall be exempt only from the requirements of subsection (e)(6).
- (13) Near-Retirement Vessels. A harbor craft that is scheduled to be taken out of service and retired permanently and has an engine that has a compliance date, as set forth in subsection (e)(6)(C), that is within one year of the vessel's scheduled retirement date, is exempt from the requirements of subsection (e)(6)(C) and (6)(D), provided the vessel is actually taken out of service and retired on or before the scheduled retirement date. Operation of a vessel subject to this provision after the scheduled retirement date or the engine's compliance date, whichever occurs later, is a separate violation of this section for each and every day of operation during which the vessel's engines do not meet the requirements of subsection (e)(6)(D) or other parts of this section.

(d) *Definitions.*

For purposes of this section, the definitions of Health and Safety Code sections 39010 through 39060 shall apply except as otherwise specified in this section:

- (1) "Air District" means one of the local air pollution control districts (APCDs) or air quality management districts (AQMDs) established under Health and Safety Code section 40000 et seq.
- (2) "Alternative Diesel Fuel" means any fuel used in a diesel engine that is not commonly or commercially known, sold, or represented by the supplier as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM D975-81, "Standard Specification for Diesel Fuel Oils," as modified in May 1982, which is incorporated herein by reference, and does not require engine or fuel system modifications for the engine to operate, although minor modifications (e.g., recalibration of the engine fuel control) may enhance performance. Examples of alternative diesel fuels include, but are not limited to, biodiesel and biodiesel blends not meeting the definition of CARB diesel fuel; Fischer-Tropsch fuels; emulsions of water in diesel fuel; and fuels with a fuel additive, unless:
 - (A) the additive is supplied to the engine fuel by an on-board dosing mechanism, or
 - (B) the additive is directly mixed into the base fuel inside the fuel tank of the engine, or
 - (C) the additive and base fuel are not mixed until engine fueling commences, and no more additive plus base fuel combination is mixed than required for a single fueling of a single engine.
- (3) "Alternative Fuel" means natural gas, propane, ethanol, methanol, gasoline, hydrogen, electricity, or other technologies that do not meet the definition of CARB diesel or alternative diesel fuel. "Alternative fuel" also means any mixture that only contains these fuels.
- (4) "Annual Hours of Operation" means the total number of hours, rounded to the nearest whole hour, a vessel engine is used for all commercial purposes in Regulated California Waters in the calendar year (January 1 to December 31) immediately prior to the engine's applicable compliance date set forth in subsection (e)(6)(C). For example, if a vessel is used for commercial fishing and commercial non-fishing purposes, the total number of hours combined for both uses shall be the total annual hours of operation for that vessel.
- (5) "Auxiliary Engine" means an engine designed primarily to provide power for uses other than propulsion.
- (6) "Averaging" means an exchange of excess reduced regulated emissions among engines on vessels in the same owner's or operator's fleet.

- (7) "Baseline" means the emissions level of a diesel engine using CARB diesel fuel as configured upon initial marine installation.
- (8) "Barge" means a vessel having a flat-bottomed rectangular hull with sloping ends and built with or without a propulsion engine.
- (9) "California Air Resources Board (CARB) Diesel Fuel" means any diesel fuel that meets the specifications of vehicular diesel fuel, as defined in title 13 CCR, sections 2281, 2282, 2284, 2299, and title 17 CCR section 93116.
- (10) "California Baseline" means the mean lower low water line along the California coast, as shown on the following National Oceanic and Atmospheric Administration (NOAA) Nautical Charts as authored by the NOAA Office of Coast Survey, which are incorporated herein by reference:
 - (A) Chart 18600, Trinidad Head to Cape Blanco (January 2002);
 - (B) Chart 18620, Point Arena to Trinidad Head (June 2002);
 - (C) Chart 18640, San Francisco to Point Arena (August 2005);
 - (D) Chart 18680, Point Sur to San Francisco (June 2005);
 - (E) Chart 18700, Point Conception to Point Sur (July 2003);
 - (F) Chart 18720, Point Dume to Purisima Point (January 2005); and
 - (G) Chart 18740, San Diego to Santa Rosa Island (April 2005).
- (11) "CARB" means the California Air Resources Board. CARB may also be referred to as "ARB."
- (12) "Carbon Monoxide (CO)" is a colorless, odorless gas resulting from the incomplete combustion of hydrocarbon fuels.
- (13) "Category 1 engine" means any marine engine with a displacement of less than 5.0 liter per cylinder and with a maximum horsepower (hp) rating of 50 hp or greater.
- (14) "Category 2 engine" means any marine engine with a displacement of 5.0 to less than 30 liter per cylinder.
- (15) "Category 3 engine" means any marine engine with a displacement of greater than 30 liter per cylinder.
- (16) "Certified engine" means an engine that is certified by U.S. EPA as meeting the requirements of title 40, Code of Federal Regulations, Part 94.
- (17) "Coast Guard Vessel" means any vessel or boat owned or operated by the United States Coast Guard, including, but not limited to, Coast Guard cutters and patrol boats that are used for law enforcement, defense operations, marine

science, search and rescue missions, training missions, coastal surveillance, servicing aids to navigation, and marine environmental response.

- (18) "Compliance Date" means the date, as set forth in Table 7 or Table 8 in subsection (e)(6)(C) (whichever applies), by which time a vessel engine must meet the requirements set forth in subsection (e)(6)(D).
- (19) "Crew and Supply Vessel" means a self-propelled vessel used for carrying personnel and/or supplies to and from off-shore and in-harbor locations (including, but not limited to, off-shore work platforms, construction sites, and other vessels).
- (20) "Date of Acquisition" means, for a vessel or engine subject to this regulation, the date of purchase as defined by the date shown on the front of the cashed check, the date of the financial transaction, or the date on the vessel or engine purchasing agreement, whichever is earliest of the three dates.
- (21) "Diesel Engine" means an internal combustion, compression-ignition (CI) engine, or pilot ignition engine with operating characteristics significantly similar to the theoretical diesel combustion cycle. The regulation of power by controlling fuel supply in lieu of a throttle is indicative of a compression ignition engine.
- (22) "Diesel Fuel" means any fuel that is commonly or commercially known, sold, or represented by the supplier as diesel fuel, including any mixture of primarily liquid hydrocarbons (HC) - organic compounds consisting exclusively of the elements carbon and hydrogen - that is sold or represented by the supplier as suitable for use in an internal combustion, compression-ignition engine.
- (23) "Diesel-Fueled" means a diesel engine fueled in whole or part by diesel fuel.
- (24) "Diesel Oxidation Catalyst (DOC)" means an emission control technology that employs a catalyst to promote oxidation processes in diesel exhaust gases, usually designed to reduce emissions of the organic fraction of diesel particulates, gas-phase HC, and CO.
- (25) "Diesel Particulate Filter (DPF)" means an emission control technology that reduces diesel PM emissions in engine exhaust gases by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.
- (26) "Diesel Particulate Matter (Diesel PM)" means the particles found in the exhaust of diesel engines, which may agglomerate and adsorb other species to form structures of complex physical and chemical properties.

- (27) "Direct Control" means owning, operating, having a contract, lease, or other arrangement to operate a harbor craft.
- (28) "Emission Control Strategy" means any device, system, or strategy employed to reduce emissions from an engine, including, but not limited to, diesel oxidation catalysts, selective catalytic reduction systems, diesel particulate filters, alternative diesel fuels, water emulsified fuels, and any combination of the above.
- (29) "Estuarine Waters" means an arm of the sea or ocean that extends inland to meet the mouth of a river.
- (30) "Excursion Vessel" means a vessel used for a short trip or outing to some place, usually for a special purpose and with the intention of a prompt return, including all public or private excursion vessels, such as dinner cruises, harbor, lake, or river tours, scuba diving expeditions, and whale watching tours.
- (31) "Executive Officer" means the Executive Officer of the California Air Resources Board or his/her designee.
- (32) "Ferry" means any self-propelled vessel or boat owned, controlled, operated, or managed for public use in transportation of carrying passengers, property, or vehicles on scheduled services.
- (33) "Fishing Vessel" means a self-propelled boat or ship that is either: (A) a commercial fishing vessel dedicated to the search for, and collection of, fish for the purpose of sale at market or directly to a purchaser(s), or (B) or a charter fishing vessel used for hire by the general public dedicated to the search for and collection of, fish for the purpose of general consumption.
- (34) "Fleet" means the total number of harbor craft owned, rented, or leased by an owner or operator in an air district or distinct locale within Regulated California Waters or the statewide population of a specific vessel type.
- (35) "Fuel Additive" means any substance designed to be added to fuel or fuel systems or other engine-related engine systems such that it is present in-cylinder during combustion.
- (36) "Harbor Craft" (also called "Commercial Harbor Craft") means any private, commercial, government, or military marine vessel including, but not limited to, passenger ferries, excursion vessels, tugboats, ocean-going tugboats, towboats, push-boats, crew and supply vessels, work boats, pilot vessels, supply boats, fishing vessels, research vessels, United States Coast Guard vessels, hovercraft, emergency response harbor craft, and barge vessels that do not otherwise meet the definition of ocean-going vessels or recreational vessels.
- (37) "Homeport" means the port in which a vessel is registered or permanently based.

- (38) "In-Use Harbor Craft" means a harbor craft that is not a new harbor craft.
- (39) "In-Use Marine Engine" means a marine engine that is not a new marine engine.
- (40) "Lease" means a contract by which the owner (lessor) of a property, such as a vessel or engine, grants the right to use or occupy the property to another person (lessee) for a specified term and for a specified rent.
- (41) "Level" means, unless the context requires otherwise, one of three categories of Air Resources Board-verified diesel emission control strategies as set forth in title 13, CCR, section 2700 et seq.: Level 1 means the strategy reduces engine diesel PM emissions by between 25 and 49 percent; Level 2 means the strategy reduces engine diesel PM emissions by between 50 and 84 percent; and Level 3 means the strategy reduces engine diesel PM emissions by 85 percent or greater, or reduces engine PM emissions to less than or equal to 0.01 grams per brake horsepower-hour.
- (42) "Low-Use" means the operation of any compression-ignition engine associated with a harbor craft vessel for less than 300 total annual hours of operation in Regulated California Waters, based on the immediately previous calendar year.
- (43) "Military Tactical Support" means a vessel that meets military specifications, is owned by the U.S. Department of Defense, the U.S. Coast Guard, the U.S. Military services or its allies, and is used in combat, combat support, combat services support, tactical or relief operations or training for such operations.
- (44) "Model Year" means the diesel engine manufacturer's annual production period, which includes January 1st of a calendar year, or if the manufacturer has no annual production period, the calendar year.
- (45) "Multipurpose Harbor Craft" means a harbor craft that serves as a ferry, excursion vessel, tugboat, or towboat but is also used as a work, crew and supply, pilot, fishing, supply, or other vessel.
- (46) "New Harbor Craft" means a harbor craft for which both of the following criteria are true:
- (A) it is built, or its keel is laid, on or after January 1, 2009, and
 - (B) the equitable or legal title to the harbor craft has never been transferred to an ultimate purchaser.

Where the equitable or legal title to the harbor craft is not transferred to an ultimate purchaser prior to the harbor craft being placed into service, the harbor craft ceases to be new when it is placed into service. A harbor craft is placed into service when it is used for its functional purposes.

- (47) “New Marine Engine” means a marine engine for which both of the following criteria are true:
- (C) it is manufactured or imported on or after January 1, 2009, and
 - (D) the equitable or legal title to the engine has never been transferred to an ultimate purchaser.

Where the equitable or legal title to the engine is not transferred to an ultimate purchaser prior to the engine being placed into service, the engine ceases to be new when it is placed into service. An engine is placed into service when it is used for its functional purposes.

- (48) “Nitrogen Oxides (NO_x)” means compounds of nitric oxide (NO), nitrogen dioxide (NO₂), and other oxides of nitrogen, which are typically created during combustion processes and are major contributors to smog formation and acid deposition.
- (49) “Non-Methane Hydrocarbons (NMHC)” means the sum of all hydrocarbon (HC) air pollutants except methane.
- (50) “Ocean-going Vessel” means a commercial, government, or military vessel meeting any one of the following criteria:
- (A) a vessel with a “registry” (foreign trade) endorsement on its United States Coast Guard certificate of documentation, or a vessel that is registered under the flag of a country other than the United States;
 - (B) a vessel greater than or equal to 400 feet in length overall (LOA) as defined in 50 CFR § 679.2, as adopted June 19, 1996;
 - (C) a vessel greater than or equal to 10,000 gross tons (GT ITC) per the convention measurement (international system) as defined in 46 CFR 69.51-.61, as adopted September 12, 1989; or
 - (D) a vessel propelled by a marine compression ignition engine with a per-cylinder displacement of greater than or equal to 30 liters.
- (51) “Operate” means steering or otherwise running the vessel or its functions while the vessel is underway, moored, anchored, or at dock.
- (52) “Own” means having all the incidents of ownership, including the legal title, whether or not that person lends, rents, or pledges the vessel; having or being entitled to the possession of a vessel as the purchaser under a conditional sale contract; or being the mortgagor of a vessel.

- (53) "Particulate Matter (PM)" means any airborne finely divided material, except uncombined water, which exists as a liquid or solid at standard conditions (e.g., dust, smoke, mist fumes, or smog).
- (54) "Person" includes all of the following:
- (A) any person, firm, association, organization, partnership, business trust, corporation, limited liability company, or company;
 - (B) any state or local governmental agency or public district, or any officer or employee thereof; and
 - (C) the United States or its agencies, to the extent permitted by federal law.
- (55) "Pilot Vessel" means a vessel designed for, but not limited to, the transfer and transport of maritime pilots to and from ocean going vessels while such vessels are underway.
- (56) "Port" means any facility used for water-borne commerce. "Port" includes, but is not limited to, facilities also known as "marine terminals" and "roadsteads."
- (57) "Portable CI Engine" means a compression ignition (CI) engine designed and capable of being carried or moved from one location to another. Indicators of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. Portable engines are not self-propelled.
- (58) "Portable Engine Registration Program (PERP)" means the statewide program designed to promote the use of clean portable engines in California, as provided for in title 13, CCR, sections 2450 through 2465. Once registered in the program, engines and equipment units can operate throughout the State without being required to obtain individual permits from each air pollution control or air quality management district in which they operate.
- (59) "Pre-Tier 1 Engine" means an engine that was built before the effective date of U.S. EPA's Tier 1 marine engine standard, as set forth in 40 CFR 94.
- (60) "Propulsion Engine" means an engine that provides power to move a vessel through the water or directs the movement of a vessel.
- (61) "Purchase Date" means the date shown on the front of the cashed check; the date of the financial transaction; or the date on the engine or harbor craft purchase, rental, or lease agreement, whichever is earliest.
- (62) "Push Boat" means any self-propelled vessel engaged in or intending to engage in the service of pulling, pushing, or hauling along side barges or other vessels,

or any combination of pulling, pushing, or hauling along side barges or other vessels. "Push boats" is interchangeable with "towboats."

- (63) "Recreational Vessel" means a vessel that is intended by the vessel manufacturer to be operated primarily for pleasure or leased, rented or chartered to another for the latter's pleasure, excluding the following vessels: (1) vessels of less than 100 gross tons that carry more than 6 passengers, (2) vessels of 100 gross tons or more that carry one or more passengers, and (3) vessels used solely for competition.
- (64) "Registered Historic Vessel" means a vessel listed in the National Register of Historic Places pursuant to the National Historic Preservation Act of 1966 (16 U.S.C. 470).
- (65) "Regulated California Waters" means all of the following:
 - (A) all California internal waters;
 - (B) all California estuarine waters;
 - (C) all California ports, roadsteads, and terminal facilities (collectively "ports");
 - (D) all waters within 3 nautical miles of the California baseline, starting at the California-Oregon border and ending at the California-Mexico border at the Pacific Ocean, inclusive;
 - (E) all waters within 12 nautical miles of the California baseline, starting at the California-Oregon border and ending at the California-Mexico border at the Pacific Ocean, inclusive;
 - (F) all waters within 24 nautical miles of the California baseline, starting at the California-Oregon border to 34.43 degrees North, 121.12 degrees West; inclusive; and
 - (G) all waters within the area, not including any islands, between the California baseline and a line starting at 34.43 degrees North, 121.12 degrees West; thence to 33.50 degrees North, 118.58 degrees West; thence to 32.48 degrees North, 117.67 degrees West; and ending at the California-Mexico border at the Pacific Ocean, inclusive.
- (66) "Rent" means payment for the use of harbor craft or diesel engine for a specified term.
- (67) "Retirement" means the act of taking an engine or harbor craft out of service (i.e., to "retire") so that it subsequently never again operates in any of the Regulated California Waters. "Retirement" does not include an engine or harbor craft that is sold for use outside California then subsequently operated in any of the Regulated California Waters.
- (68) "SCAQMD" shall mean the South Coast Air Quality Management District, as defined in Health and Safety Code section 40410 et seq. and described in

section 60104, title 17, California Code of Regulations, and shall include all waters subject to the jurisdiction of the SCAQMD.

- (69) "Supply Vessel" means a self-propelled vessel used for carrying supplies to and from off-shore and in-harbor locations including, but not limited to, off-shore work platforms, construction sites, and other vessels.
- (70) "Take Out of Service" means the act of dry-docking, mooring, anchoring, or otherwise tying up a harbor craft at dock to conduct maintenance, repairs, replacements, or upgrades such that the vessel cannot be operated in Regulated California Waters while such acts are conducted on the vessel.
- (71) "Tank Barge" means a non-self-propelled vessel constructed or adapted primarily to carry, or that carries, oil or hazardous material in bulk as cargo or cargo residue.
- (72) "Tank Vessel" or "Tanker" means a self-propelled vessel constructed or adapted primarily to carry, or that carries, oil or hazardous material in bulk as cargo or cargo residue.
- (73) "Temporary emergency rescue / recovery vessel" means a vessel whose homeport is not within California and is brought into California for the immediate use of emergency rescue or recovery and returns to its home port outside of California at the conclusion of its emergency rescue / recovery mission.
- (74) "Temporary replacement vessel" means a vessel that is brought into service to temporarily replace a California vessel that has been temporarily taken out of service. There are two types of these vessels: (1) "temporary replacement vessels (SCAQMD)," which are used in the SCAQMD but have a homeport in California outside of the SCAQMD; and "temporary replacement vessels" which are used anywhere in California, including the SCAQMD, and have a homeport outside of California.
- (75) "Tier 1 Marine Emission Standards (Tier 1)" (shown in Table 1 below) means the U.S. EPA marine engine Tier 1 emission standards, as promulgated by U.S. EPA and set forth in "Control of Emissions of Air Pollution from New Marine Compression-Ignition Engines at or Above 37 kW" (64 Federal Register 73299-73373, December 29, 1999)(40 Code of Federal Regulations Part 94), both of which are incorporated herein by reference.

Table 1: U.S. EPA Tier 1 Marine Engine Emission Standards

Category	Power (kW) & Displacement (Liters/cylinder)	Engine Speed	Tier 1 Model Year	PM (g/bhp-hr)	NO _x +HC (g/bhp-hr)	CO (g/bhp-hr)
1, 2, 3, including Recreational	= 37 kW & = 2.5 l/cyl	rpm = 2000	2004	-	7.3	-
		130 = rpm <2000	2004	-	33.57 x rpm ^{-0.2}	-
		rpm <130	2004	-	12.7	-

(40 CFR Part 94)

*converted maximum power rating from 40 CFR 94, which are expressed in g/kW-hr to g/hp-hr by the following: g/kW-hr (0.746) = g/hp-hr.

- (76) “Tier 2 Marine Emission Standards (Tier 2)” (shown in Table 2 below) means the U.S. EPA marine engine Tier 2 emission standards, as promulgated by U.S. EPA and set forth in “Control of Emissions of Air Pollution from New Marine Compression-Ignition Engines at or Above 37 kW” (64 FR 73299-73373, December 29, 1999)(40 CFR Part 94), both of which are incorporated herein by reference.

Table 2: U.S. EPA Tier 2 Marine Engine Emission Standards for NO_x + HC, PM, and CO

Category	Displacement (liters/cylinder)	Date	NO _x +HC (g/bhp-hr)*	PM (g/bhp-hr)*	CO (g/bhp-hr)
1	Disp.< 0.9 and power =50 hp*	2005	5.6	0.30	3.7
	0.9 = Disp. < 1.2	2004	5.4	0.22	3.7
	1.2 = Disp. < 2.5	2004	5.4	0.15	3.7
	2.5 = Disp. < 5.0	2007	5.4	0.15	3.7
2	5.0 = Disp. < 15	2007	5.8	0.20	3.7
	15 = Disp. < 20 (power <_4424 hp*)	2007	6.5	0.37	3.7
	15 = Disp. < 20 (power = 4424 hp*)	2007	7.3	0.37	3.7
	20 = Disp. < 25	2007	7.3	0.37	3.7
	25 = Disp. < 30	2007	8.2	0.37	3.7

(40 CFR Part 94)

*converted maximum power rating from 40 CFR 94, which are expressed in g/kW-hr to g/hp-hr by the following: g/kW-hr (0.746) = g/hp-hr or kW (1.34) = hp

- (77) “Tier 3 Marine Engine Standards (Tier 3)” (shown in Table 3, Table 4, and Table 5 below) means the U.S. EPA proposed Tier 3 Marine Engine standards, as set forth in “Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression-Ignition Engines Less Than 30 Liters Per Cylinder” (72 FR 15937 et seq., April 3, 2007), which is incorporated herein by reference.

Table 3: U.S. EPA Proposed Tier 3 Standards for Marine Diesel Category 1 Commercial Standard Power Density Engines

Rated kW	L/Cylinder	PM g/bhp-hr	NOx + HC g/bhp-hr	Model Year
19 - < 75 kW	<0.9 ^a	0.22	5.6	2009
		0.22 ^b	3.5 ^b	2014
75 – 3700 kW	<0.9	0.10	4.0	2012
	0.9 - <1.2	0.09	4.0	2013
	1.2 - <2.5	0.08 ^c	4.2	2014
	2.5 - <3.5	0.08 ^c	4.2	2013
	3.5 - <7.0	0.08 ^c	4.3	2012

(a) <75 kW engines at or above 0.9 L/cylinder are subject to the corresponding 37-3700 kW standards.

(b) Option: 0.15 PM / 4.3 NOx in 2014.

(c) This standard level drops to 0.07 in 2018 for <600 kW engines.

Table 4: U.S. EPA Proposed Tier 3 Standards for Marine Diesel Category 1 Recreational and Commercial High Power Density Engines

Rated kW	L/Cylinder	PM g/bhp-hr	NOx + HC g/bhp-hr	Model Year
19 - <75 kW	<0.9 ^a	0.22	5.6	2009
		0.22 ^b	3.5 ^b	2014
75 – 3700 kW	<0.9	0.11	4.3	2012
	0.9 - <1.2	0.10	4.3	2013
	1.2 - <2.5	0.09	4.3	2014
	2.5 - <3.5	0.09	4.3	2013
	3.5 - <7.0	0.09	4.0	2012

(a) <75 kW engines at or above 0.9 L/cylinder are subject to the corresponding 75-3700 kW standards.

(b) Option: 0.15 PM / 4.3 NOx+HC in 2014.

Table 5: U.S. EPA Proposed Tier 3 Standards for Marine Diesel Category 2 Engines

Rated kW	L/Cylinder	PM g/bhp-hr	NOx+HC g/bhp-hr	Model Year
=<3700 kW	7 - <15	0.10	4.6	2013
	15 - <20	0.20 ^a	6.5 ^a	2014
	20 - <25	0.20	7.3	2014
	25 - <30	0.20	8.2	2014

(a) For engines at or below 3300 kW in this group, the PM / NOx+HC Tier 3 standards are 0.25 / 5.2.

- (78) “Tier 4 Marine Engine Standards (Tier 4)” (shown in Table 6 below) means the U.S. EPA proposed Tier 4 Marine Engine standards, as set forth in “Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression-Ignition Engines Less Than 30 Liters Per Cylinder” (72 FR 15937 et seq., April 3, 2007), which is incorporated herein by reference.

Table 6: U.S. EPA Proposed Tier 4 Standards for Marine Diesel Category 1 and Category 2 Engines

Rated kW	PM g/bhp-hr	NOx g/bhp-hr	HC g/bhp-hr	Model Year
>3700 kW	0.09 ^a	1.3	0.14	2014
	0.04	1.3	0.14	2016 ^b
1400 – 3700 kW	0.03	1.3	0.14	2016 ^c
600 - <1400 kW	0.03	1.3	0.14	2014 ^b

(a) This standard is 0.19 g/bhp-hr for engines with 15-30 liter/cylinder displacement.

(b) Optional compliance start dates are proposed within these model years; see Draft Locomotive and Marine NPRM Preamble (72 FR 15937 et seq.).

(c) Option for engines with 7-15 liter/cylinder displacement: Tier 4 PM and HC in 2015 and Tier 4 NOx in 2017.

- (79) “Total Hydrocarbons (THC)” or “Hydrocarbons (HC)” means the total mass of open chain and cyclic hydrocarbon molecules.
- (80) “Towboat” means any self-propelled vessel engaged in or intending to engage in the service of pulling, pushing, or hauling along side barges or other vessels, or any combination of pulling, pushing, or hauling along side barges or other vessels.
- (81) “Tugboat” means any self-propelled vessel engaged in, or intending to engage in, the service of pulling, pushing, maneuvering, berthing, or hauling along side other vessels, or any combination of pulling, pushing, maneuvering, berthing or hauling along side such vessels in harbors, over the open seas, or through rivers and canals. Tugboats generally can be divided into three groups: harbor or short haul tugboats, ocean-going or long-haul tugboats, and barge tugboats. “Tugboat” is interchangeable with “towboat” and “push boat” when the vessel is used in conjunction with barges.
- (82) “Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines (Verification Procedure)” means the Air Resources Board (ARB) regulatory procedure codified in title 13, CCR, commencing with section 2700, which is incorporated herein by reference, that engine manufacturers, sellers, owners, or operators may use to

verify the reductions of diesel PM or NO_x from in-use diesel engines through the use of a particular diesel emission control strategy.

- (83) “Verified Diesel Emission Control Strategy (VDECS)” means an emission control strategy, designed primarily for the reduction of diesel PM emissions, which has been verified pursuant to the “Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines” in title 13, California Code of Regulations, commencing with section 2700. VDECS can be verified to achieve Level 1 diesel PM reductions (25 percent), Level 2 diesel PM reductions (50 percent), or Level 3 diesel PM reductions (85 percent). VDECS may also be verified to achieve NO_x reductions.
- (84) “Vessel” or “Marine Vessel” means any tugboat, tanker, freighter, passenger ship, barge, or other boat, ship, or watercraft, except those used primarily for recreation.
- (85) “Work Boat” means a self-propelled vessel that performs duties such as fire/rescue, law enforcement, hydrographic surveys, spill/response, research, training, and construction (including drilling).

(e) *Fuel Use and Engine Emission Requirements.*

[Note: The plain English narrative in this overview is intended as a convenient guide for the reader and in no way adds, deletes, modifies, or otherwise affects the legal requirements and substantive provisions specified in subsection (e) or any other part of this section. Subsection (e) sets forth the various fuel and emission requirements for harbor craft subject to this regulation, and can be broken down as follows:

- Subsection (e)(1) specifies low sulfur fuel use requirements that apply to all harbor craft, new and in-use.
- Subsection (e)(2) specifies the requirement for installing hour-meters on all harbor craft, new and in-use.
- Subsection (e)(3) establishes requirements that apply to transactions involving new engines to be installed on in-use vessels, including a limited 6-month “sell-through” provision for non-complying engines.
- Subsection (e)(4) sets forth requirements that apply to newly acquired new harbor craft, including ferries.
- Subsection (e)(5) sets forth requirements that apply only to newly acquired new ferries, above and beyond those established in subsection (e)(4). These provisions include requirements for applying Best Available Control Technology to new ferries and their engines.
- Subsection (e)(6) is the key provision of this regulation, as it achieves emission reductions by requiring the eventual replacement or cleanup of engines in the fleet of in-use ferries, excursion vessels, tugboats, towboats, push boats, and multipurpose harbor craft. This subsection requires that owners and operators eventually replace or otherwise bring into compliance with the specified engine standards all of their pre-Tier 1 and Tier 1-certified engines in their in-use vessels by the dates shown in the specified compliance schedules. The compliance dates are designed to clean up the fleet’s oldest and dirtiest engines first, while giving more time for relatively newer, Tier 1 engines to be upgraded or replaced. Vessels with their homeport in the South Coast Air Quality Management District (SCAQMD) have an accelerated compliance schedule to reflect that district’s greater need for expedited emission reductions. The compliance schedules are grouped by vessel type, location of the vessel’s home port, the engine’s model year, and the engine’s annual hours of operation.
- Subsection (e)(7) provides for a limited set of circumstances under which the Executive Officer may grant short extensions to the compliance dates if warranted.]

(1) *All Harbor Craft – Low Sulfur Fuel Use Requirement.*

As of January 1, 2009, no person shall fuel any diesel engine on a harbor craft within any of the Regulated California Waters unless the fuel is one of the following:

- (A) CARB Diesel Fuel; or
- (B) an alternative diesel fuel as defined in subsection (d)(2); or
- (C) any alternative diesel fuel that does not meet subsection (e)(1)(B) above but is certified by CARB as meeting the requirements of the Verification Procedure; or
- (D) CARB Diesel Fuel used with fuel additives that meet the requirements of the Verification Procedure; or
- (E) any combination of subsection (e)(1)(A) through (D) above.

(2) *All Harbor Craft – Installation and Use of Non-Resettable Hour Meters.*

As of January 1, 2009, no person shall operate a harbor craft within any of the Regulated California Waters without an installed and properly operating, non-resettable hour meter, which accurately measures the number of hours an engine operates. The hour meter shall be installed on each diesel engine on the vessel in a manner that allows reasonable personnel access without impediment.

(3) *All In-Use Harbor Craft – Requirements for Newly Acquired Engines.*

Except as otherwise provided in this paragraph, as of January 1, 2009, no person shall sell, purchase, offer for sale, lease, rent, import, or otherwise acquire a diesel engine for an in-use harbor craft, which is intended to operate or actually operates in any of the Regulated California Waters, unless that engine:

- (A) meets the applicable Tier 2 or Tier 3 engine standards in effect on the date of acquisition of the engine. Once Tier 4 engine standards come into effect, a newly acquired engine meeting the Tier 3 standard may be used to comply with this paragraph unless the engine being replaced on the in-use vessel was certified to a Tier 4 standard, in which case the newly acquired engine must meet at least the Tier 4 standard, or cleaner, or
- (B) does not meet the requirements specified in paragraph (A) above, but it is sold, supplied, or offered for sale for use in the harbor craft within 6 months after the effective date of the applicable Tier 2, Tier 3, or Tier 4 standards. The provisions of this paragraph (B) shall apply only to instances when the engine is sold, supplied, or offered for sale within the 6 month period specified above. Engines that are subsequently sold, supplied, or offered for sale after the 6 month period specified above shall be subject to the requirements specified in paragraph (A), regardless of whether it was

previously sold, supplied, or offered for sale within the 6 month period specified above.

(4) *All New Harbor Craft (Including All New Ferries) – Requirements for Newly Acquired Vessels.*

As of January 1, 2009, no person shall sell, purchase, offer for sale, lease, rent, import, or otherwise acquire a new harbor craft for use in any of the Regulated California Waters unless each of the diesel engines on the vessel meets the applicable Tier 2, Tier 3, or Tier 4 standards in effect on the date of vessel acquisition. Additional requirements shall apply for diesel propulsion engines in newly acquired new ferries, as specified in subsection (e)(5).

(5) *Selected New Ferries Only – Additional Requirements for All Newly Acquired Propulsion Engines.*

(A) As of January 1, 2009, no person shall sell, purchase, offer for sale, import, or otherwise acquire a new ferry with the capacity to transport 75 or more passengers for use in any of the Regulated California Waters unless each propulsion diesel engine on the vessel:

1. meets either the Tier 2 or Tier 3 standards that are in effect on the date of vessel acquisition; and
2. will be operated only in conjunction with the use of Best Available Control Technology (BACT), as determined and pre-approved by the Executive Officer pursuant to this provision.

(B) In lieu of installing or using BACT pursuant to paragraph (A)2 above, a person may comply with paragraph (A)2 by installing on the new ferry a propulsion engine(s) that is certified to the Tier 4 standards, if a Tier 4-certified engine is available at the time that the new ferry is delivered. If no Tier 4-certified engines are available at the time of ferry delivery, the provisions of paragraphs (A)1 and (A)2 shall apply.

(C) For purposes of this section, “BACT” is the diesel emission control strategy (DECS), whether verified or unverified pursuant to 13 CCR section 2700 et seq., that is determined by the E.O. as meeting all of the following criteria:

1. it provides or is expected to continuously provide the greatest reduction feasible of NO_x or diesel PM when used with the ferry’s propulsion diesel engine;
2. the use of BACT does not result in an increase of 10 percent or more of any air pollutant, including NO_x and diesel PM, relative to the engine’s emissions of that air pollutant without the use of BACT; and

3. either the DECS manufacturer or an authorized dealer of the DECS determines or otherwise agrees with the E.O. that use of the DECS on or with the new ferry's propulsion engine(s) would not invalidate or otherwise adversely affect the propulsion engine's original warranty.

DECS shall include, but not be limited to, exhaust treatment controls and the use of alternative fuels or fuel additives.

- (D) The E.O. shall determine the appropriate level of BACT and specify such BACT in an Executive Order granting such approval. Applications to comply with the requirements of paragraph (A)2 by using BACT shall follow the application and review procedure set forth below:

1. Application Process.

For all new ferries for which the keel is laid on or after January 1, 2009, the application for BACT approval shall be submitted in writing to the E.O. for evaluation before the keel is laid. The BACT application shall contain, at a minimum, the following information:

- a. the applicant company's name, address, and contact information;
- b. information specific to the harbor craft and engine(s) on which BACT will be used, including the vessel name and identification number(s); engine make, model, and serial numbers; and all other information that uniquely identify the engine;
- c. certification documentation, engineering calculations, emissions test data, or other information that establishes the diesel PM and NO_x emissions of the engine in combination with the proposed BACT. Emissions and emission reduction estimates shall include both diesel PM and NO_x emissions and shall be expressed in grams per brake horsepower-hour (g/bhp-hr) unless otherwise specified by the E.O. Information submitted pursuant to this provision shall be used as follows:
 - i. The E.O. shall use the information to compare the emissions resulting from the proposed use of BACT with the emissions quantified in BACT determinations previously approved by the E.O.;
 - ii. If there are no previous BACT determinations available for comparison, the E.O. shall use ARB staff's best engineering judgment to determine if the proposed BACT provides the greatest feasible reduction of diesel PM or NO_x; and
 - iii. The E.O. may require the applicant to submit additional emissions data for other air pollutants if the E.O. believes that the proposed use of BACT may increase any air pollutant by 10

percent or more relative to the engine emissions without the proposed BACT.

- d. the proposed recordkeeping, reporting, monitoring, and testing procedures that the applicant plans to use to demonstrate continued effectiveness of the BACT.

2. E.O. Review and Final Decision-Making Process.

- a. Within 15 days after receiving a BACT application, the E.O. shall notify the applicant whether the application is deemed sufficiently complete to proceed with further evaluation. If the application is deemed incomplete, the notification shall identify the application's deficiencies. The E.O. shall have an additional 15-day period for reviewing each set of documents or information submitted in response to an incomplete determination. Nothing in this subsection prohibits the E.O. from requesting additional information from the applicant, during any part of the BACT application process, which the E.O. determines is necessary to evaluate the application.
- b. Within 30 days of deeming an application complete, the E.O. shall take final action to either approve or deny a BACT application, and the E.O. shall notify the applicant accordingly. If the application is denied or modified, the Executive Officer shall state the reasons for the denial or modification in the notification. The E.O. shall specify all terms, conditions, and requirements the E.O. believes are necessary for the ferry engine and BACT to operate properly and reduce emissions of air pollutants consistent with this section. The reporting and recordkeeping requirements specific to the use of BACT shall include, but not be limited to:
 - i. hours of operation for the engine and BACT and fuel usage;
 - ii. usage of any alternative fuels, additives, agents, flow rates, and emission test results;
 - iii. maintenance procedures for the engine(s) and its BACT;
 - iv. any other measurements or recordings specified by the E.O.

The approval/disapproval notification to the applicant and approved BACT shall be made available to the public on ARB's internet site.

3. Post-Approval Vessel, Engine, and BACT Operation.

Any person subject to this provision shall maintain operating records and other information in the manner and form specified by the E.O. in the BACT approval. All records and reports created pursuant to this

provision shall be submitted to ARB upon request and shall be maintained and retained for ARB inspection a minimum of three years.

(6) *In-Use Engines and Vessels – Schedules for Meeting Tier 2 or Tier 3 Standards.*

- (A) For Pre-Tier 1 and Tier 1-Certified Engines on Ferries, Excursion Vessels, Tugboats, Towboats, Push Boats and Multipurpose Harbor Craft Only.

Except as provided in subsection (c), beginning January 1, 2009, no person shall own, operate, sell, purchase, offer for sale, lease, rent, import, or otherwise acquire an in-use ferry, excursion vessel, tugboat, towboat, push boat or multipurpose harbor craft with pre-Tier 1 or Tier 1-certified engines for use in any of the Regulated California Waters unless the vessel's in-use pre-Tier 1 or Tier 1-certified engines meet the requirements of subsection (e)(6)(D) on or before the compliance date set forth in Table 7 or Table 8 of subsection (e)(6)(C) below, whichever date is applicable. For purposes of this section, a multipurpose harbor craft's total annual hours of operation shall be the basis for determining that vessel's compliance date in Table 7 or Table 8 of subsection (e)(6)(C).

- (B) [Reserved for Future Use].

- (C) Compliance Schedules and Determination of Engine Model Year.

Except as otherwise provided for in subsection (c), in this subsection (e)(6)(C), and in subsection (e)(6)(D), the following compliance dates shall apply to all in-use engines and persons subject to subsection (e)(6)(A). Table 7 specifies the compliance dates, by engine model year and annual hours of operation, that apply to in-use engines in harbor craft subject to subsection (e)(6)(A) and for which the vessel's homeport is located outside the South Coast Air Quality Management District (SCAQMD). Table 8 contains the compliance dates, by engine model year and annual hours of operation, that apply to in-use engines in harbor craft subject to subsection (e)(6)(A) and for which the vessel's homeport is located within SCAQMD.

For purposes of determining the applicable compliance date in Table 7 or Table 8, the engine's model year shall be determined using any of the following:

1. the engine's actual model year of manufacture;
2. the engine's effective model year based on the "Engine's Model Year + 5" method, which is as follows:

The "Engine's Model Year + 5" method extends the effective model year if the person uses an emissions control strategy pursuant to this paragraph. To use this method, the person must use an emission control strategy with the existing in-use engine that reduces either diesel

PM or NO_x by a minimum of 25 percent and does not increase either pollutant by more than 10 percent, relative to the emissions of those pollutants without the use of the emission control strategy. If the emission control strategy is not a VDECS, the person shall demonstrate compliance with this paragraph by submitting emissions data that demonstrate the non-verified emission control technology achieves a diesel PM or NO_x emission reduction of 25 percent or better, using the test methods specified in subsection (j). Upon approval of the E.O., the person may submit data derived from the use of other test methods to demonstrate the required 25 percent minimum emission reductions, such as:

- a. marine engine certification test data for the harbor craft propulsion or auxiliary engine, or engine manufacturer emission test data; or
- b. emissions test data derived from another engine that is configured and used in a substantially similar way to the in-use engine on which the emission control strategy is to be used; or
- c. emissions test data used to meet the regulatory requirements of the ARB Verification Procedure for the non-verified emission control strategy implemented.

A person's use of an emissions control strategy pursuant to this provision extends the engine's effective compliance date to the compliance date for a similar engine that is five model years newer (i.e., the actual model year for the engine with the emissions control strategy + 5). For example, the owner of a 1995 model year engine on a tugboat with a homeport outside of SCAQMD and which operates in Regulated California Waters for 750 hours in 2013, would normally be required to meet a December 31, 2014 compliance date, as set forth in Table 7. However, if an emissions control strategy that meets the requirements of this provision is implemented with this engine prior to the 2014 nominal compliance date, the engine's effective compliance date would be extended to the compliance date for a 2000 model year engine (i.e., the 1995 model year + 5). Accordingly, in that scenario, the engine's effective compliance date would be December 31, 2016; or

3. the engine's effective model year based on the "Engine's Tier 1 Rebuild Model Year" method, which is as follows;

This method requires the person to demonstrate to the E.O.'s written satisfaction that the existing pre-2004 model year engine was rebuilt to conform with U.S. EPA Tier 1 standards prior to January 1, 2008. If the E.O. is thus satisfied, the effective model year of the Tier 1 rebuilt engine for purposes of determining the Table 7 or Table 8 compliance date shall be the actual year in which the Tier 1 rebuild occurred.

Table 7. 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
1996 - 2000	=1500	12/31/2015
1996 - 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

[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 owner or operator must bring the engine into compliance with the requirements of subsection (e)(6)(D) by December 31, 2012.].

Table 8. 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

[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 owner or operator must bring the engine into compliance with the requirements of subsection (e)(6)(D) by December 31, 2010.].

(D) Compliance Requirements:

Any person subject to the requirements of subsection (e)(6)(A) shall use at least one of the following compliance methods for each engine on the vessel by the date specified in Table 7 or Table 8 above, whichever compliance date applies:

1. Method 1: Replacement of the in-use pre-Tier 1 or Tier-1 certified engine with a U.S. EPA certified Tier 2 or Tier 3 engine; the Tier 2 or Tier 3 standard that applies to the in-use engine is the U.S. EPA standard that would apply to the engine had that engine been a new engine at the time of the compliance date specified in subsection (e)(6)(A). Tier 3-certified engines may still be used to comply with this paragraph, even if Tier 4-certified engines become available by the engine's compliance date; or
2. Method 2: Demonstrate to the E.O.'s written satisfaction that the existing pre-Tier 1 or Tier 1-certified in-use engine already meets the Tier 2 or Tier 3 standard that would apply to the in-use engine had that engine been a new engine at the time of the compliance date specified in subsection (e)(6)(A). A demonstration that the existing engine meets the Tier 3 standard may still be used to comply with this paragraph, even if Tier 4 standards come into effect by the engine's compliance date. The in-use engine may be rebuilt to a cleaner standard or implement a diesel emission control strategy to aid in meeting these standards. The demonstration may involve using the test method specified in section (j) or through an alternative method approved by the Executive Officer. Upon approval by the Executive Officer, other data may be used to demonstrate emission reduction level, such as:
 - (a) the engine manufacturer's certification test data or other emissions test data for that in-use engine; or
 - (b) emissions test data derived from another engine that is configured and used in a substantially similar way to the in-use engine; or
 - (c) emissions test data used to meet the regulatory requirements of ARB's Verification Procedure for the non-verified emission control strategy implemented; or
3. Method 3: Demonstrate to the E.O.'s written satisfaction that the in-use engine has not and will not operate 300 or more hours per calendar year.

(E) Compliance Extensions.

The E.O. may grant an owner or operator an extension from a compliance deadline specified in subsection (e)(6)(C) for any one of the reasons set forth

below. An owner or operator granted such an extension shall be deemed to be in compliance with the requirements of subsection (e)(6)(D) only upon written authorization from the E.O. made pursuant to this provision and only until the end of the extension period. Except as provided in paragraph 3 below, compliance extensions granted pursuant to this provision may not be combined with any other compliance date extensions, including those set forth in this provision and in subsection (e)(6)(C)2 and (C)3. Except as provided in paragraphs 2 and 3 below, under no circumstances shall the E.O. grant more than one compliance extension for any individual engine, set of engines, or harbor craft.

1. *Change in Annual Hours of Operation.* The E.O. may grant a one-time, maximum one year extension to the compliance dates set forth in subsection (e)(6)(C), provided the applicant demonstrates to the E.O.'s satisfaction that the following has occurred:
 - a. The vessel owner or operator reasonably determined the vessel engine's nominal compliance date based on the engine's hours of operation two years before the nominal compliance date;
 - b. In the year immediately prior to the nominal compliance date, the engine's annual hours of operation significantly increased from the prior year such that the engine's effective compliance date would have been accelerated from one compliance date to an earlier compliance date.

[Note: For example, let's assume an operator has a 1982-model year engine on a tugboat, which has a homeport outside of SCAQMD and operates for 750 hours in Regulated California Waters in 2010. If it is reasonable for the operator to assume the annual hours of operation in 2011 will be similar to 2010, the operator would project from Table 7 that the engine's compliance date would be December 31, 2012, and would plan his operations accordingly. However, if the vessel engine's operation increased substantially to 1600 hours in 2011, the engine normally would then have its compliance date accelerated to December 31, 2011, according to Table 7. The one-year extension would, therefore, extend the engine's actual compliance date back to what it would have been without the change in hours of operation (i.e., back to December 31, 2012).].

2. *No Suitable Engine Replacement for Harbor Craft.* The E.O. may grant to an owner or operator a one year extension, which can be renewed annually, provided the owner or operator demonstrates to the E.O.'s written satisfaction that there is no suitable Tier 2-certified or Tier 3-certified replacement engine available anywhere that can be used in his/her specific vessel and he/she cannot otherwise meet the requirements of subsection (e)(6). For purposes of this paragraph, the only considerations for an engine's suitability to replace an existing engine are whether the replacement engine is similar in horsepower to

the existing engine, can fit within the vessel's engine compartment, and installation of the replacement engine would not cause the vessel to violate U.S. Coast Guard or other applicable safety regulations; the cost of the replacement engine shall not be a valid basis for replacement suitability. The application for and issuance of an initial extension and subsequent extensions pursuant to this paragraph shall be subject to the following requirements:

- a. For an initial extension and all subsequent annual extensions to be granted pursuant to this paragraph, the E.O. shall follow the same procedures for applying, determining completeness, allowing public review and considering public comments, taking final action, and publishing E.O. decisions that are set forth in subsection (g) for ACE applications;
- b. The E.O. shall consider all information submitted by the public, including but not limited to, information related to the availability of replacement engines suitable for the applicant's vessel;
- c. Except for the engine(s) for which the extension is sought, the applicant shall demonstrate that all other engines subject to the owner or operator's direct control meet the requirements of subsection (e)(6);
- d. The application shall be submitted to and received by the E.O. no later than six months before the compliance date of the engine for which the extension is requested;
- e. The application shall identify each engine for which the extension is requested;
- f. For each engine identified in paragraph (E)2.e above, the applicant shall provide a detailed description of the reasons and factors that serve as the basis for the applicant's claim that no suitable replacement engines are available. This description shall include, but not be limited to, detailed engineering diagrams, calculations, and citations to applicable U.S. Coast Guard regulations that support the applicant's claim that there are no suitable replacement engines available.
- g. The E.O. may grant additional one year extensions, provided the following requirements are met:
 - i. All procedures specified in paragraph 2.a and 2.b above are followed;

- ii. The application for an additional extension demonstrates the engines identified in paragraph 2.c remain in compliance with this section;
 - iii. The application is received by the E.O. no sooner than six months but no later than 2 months before the expiration of the previous extension;
 - iv. The application identifies the engine(s) for which the additional extension is requested;
 - v. For each engine identified in paragraph iv. above, the applicant shall provide a detailed description of the reasons and factors that serve as the basis for the applicant's claim that suitable replacement engines remain unavailable. This description shall include, but not be limited to, detailed engineering diagrams, calculations, and citations to applicable U.S. Coast Guard regulations that support the applicant's claim that there are still no suitable replacement engines available.
3. *Equipment Manufacturer Delays or Installation Difficulties.* Upon written request by a vessel owner or operator, the E.O. may grant a six-month extension to the compliance date set forth in subsection (e)(6)(C), provided all the following criteria are met:
- a. the owner or operator ordered the new replacement engine or other equipment necessary to comply with the requirements of subsection (e)(6)(D) prior to the compliance date set forth in subsection (e)(6)(C);
 - b. the purchase order identified in subpart a above was placed with the manufacturer no later than six months before the engine's compliance date;
 - c. the new engine or equipment has not been received or installed since it was ordered due to manufacturing delays or excessive difficulties encountered by the engine or equipment installer;
 - d. the applicant for the extension provides documentation to the E.O.'s satisfaction that demonstrates the criteria in subparts a through c above have been met.
4. *Same Fleet Vessel Engines that Share Compliance Dates.* Upon written request, the E.O. may grant to owners or operators of multiple vessels in the same fleet that have engines with the same compliance date a one-time, maximum one-year extension to the compliance date set forth in subsection (e)(6)(C), for each set of engines that have the same compliance date. For all other engines on the vessels not

subject to an extension granted pursuant to this paragraph, the compliance dates for such engines shall remain as set forth in subsection (e)(6)(C).

(F) *Special Provisions Applicable to the Use of a Diesel Emission Control Strategy (DECS).*

The requirements specified in this paragraph shall apply to any use of a DECS pursuant to subsections (e)(5) and (e)(6) and are in addition to any other applicable requirements. Once the DECS is installed or otherwise employed, the owner or operator shall continue to operate and maintain the DECS, in accordance with the manufacturer directions, to achieve the original level of emission reductions that the DECS was designed and intended to achieve. In the event a DECS fails, breaks down, or is otherwise damaged such that it cannot be repaired (collectively referred to hereinafter as “fail” or “failure”), the vessel owner or operator shall, within 90 days of the DECS failure, either replace the failed DECS with another DECS or employ another method that meets the requirements of subsection (e)(6)(D) and other applicable provisions of this section. The determination of whether a DECS cannot be repaired shall be from either the DECS manufacturer or an authorized dealer. The owner or operator shall provide to the E.O. the same documentation for the replacement DECS that was required for the DECS that failed, and shall obtain the same E.O. approvals that were required with the failed DECS.

(f) *Alternative Control of Emissions (ACE).*

(1) Requirements.

- (A) The purpose of this subsection is to allow any person (“person” or “applicant”) the option of complying with the requirements of this subsection in lieu of the requirements of subsection (e). Under this subsection, alternative emission control strategies (AECS) can be implemented as an alternative control of emissions (ACE), provided they result in no greater emissions, expressed in pounds, of diesel PM and NO_x and no increase of 10 percent or more of any other air pollutants from the engines over the applicable calendar year, relative to the emissions that would have occurred under compliance with subsection (e).
- (B) An applicant wishing to participate in an ACE may include one or more harbor craft in the ACE, but an applicant shall only include harbor craft that the person owns or operates under their direct control.
- (C) No harbor craft shall be included in more than one ACE plan.

- (D) Harbor craft included in an ACE must continue to be included in the ACE for the duration of the ACE.
- (E) AECS may include, but are not limited to, any combination of the following:
1. engine modifications;
 2. exhaust treatment control;
 3. engine repower;
 4. use of alternative fuels or fuel additives;
 5. shore-side power;
 6. fleet averaging; and
 7. any other measures that sufficiently reduce emissions.
- (F) The ACE application demonstrating compliance with this subsection shall contain, at a minimum, the following information:
1. the company name, address, and contact information;
 2. the harbor craft and engine(s) subject to the ACE, including the vessel name and identification number(s), engine make, model, and serial numbers, and other information that uniquely identify the engine;
 3. documentation, calculations, emissions test data, or other information that establishes the diesel PM and NO_x reductions, expressed in pounds, shall be equivalent to or greater than the emission reductions that would have been achieved upon compliance with subsection (e), including but not limited to the requirements specified in subsection (e)(6)(C) and (6)(D);
 4. the proposed recordkeeping, reporting, monitoring, and testing procedures that the applicant plans to use to demonstrate continued compliance with the ACE.
- (G) Emission reduction estimates demonstrating equivalence with the requirements of subsection (e) shall include diesel PM and NO_x emissions only from harbor craft to which the ACE applies that port within a single specific California air district, or another defined geographic area approved by the E.O.
- (H) Any owner or operator subject to an approved ACE shall maintain operating records in a manner and form as specified by the E.O. as an element of any approved ACE. Required records shall include, but are not limited to:
1. reporting and recordkeeping requirements specified in subsections (g) and (h);
 2. maintenance procedures; and

3. emissions test results.

Any owner or operator subject to an approved ACE shall retain records and reports on each vessel or nearby office for the lifetime of each engine and shall submit these records and reports to the E.O. in the manner specified in the approved ACE or upon request by the E.O.

- (I) Emission reductions included in an ACE shall not include reductions that are otherwise required by any local, State, or federal rule, regulation, or statute, or that are achieved or estimated from equipment not located in the region to which the ACE applies.
- (J) No person may operate any harbor craft under an ACE unless the applicant has first been notified in writing by the E.O. that the ACE application has been approved. Prior to such approval, applicants shall comply with the provisions of this section, including the requirements in subsection (e)(6)(C) and (6)(D).

(2) Application Process.

- (A) Applications for an ACE shall be submitted in writing to the Executive Officer for evaluation.
- (B) The Executive Officer shall establish an internet site ("ACE internet site") in which all documents pertaining to an ACE application shall be made available for public review. The Executive Officer shall also provide a copy of all such documents to each person who has requested copies of the documents; these persons shall be treated as interested parties. The Executive Officer shall provide two separate public comment periods during the ACE Application process, as specified in subsection (f)(2)(D) and (f)(2)(E).
- (C) Completeness Determination.

Within 15 days after receiving an ACE application, the Executive Officer shall notify an applicant whether the application is deemed sufficiently complete to proceed with further evaluation. If the application is deemed incomplete, the notification shall identify the application's deficiencies. The Executive Officer shall have an additional 15-day period for reviewing each set of documents or information submitted in response to an incomplete determination. Nothing in this subsection prohibits the Executive Officer from requesting additional information from the applicant, during any part of the ACE application process, which the Executive Officer determines is necessary to evaluate the application.

(D) Notice of Completeness and 30-Day First Public Comment Period.

After an ACE application has been deemed complete, the Executive Officer shall provide a 30-day public comment period to receive comments on any element of the ACE application and whether the Executive Officer should approve or disapprove the ACE application based on the contents and merits of the application. The Executive Officer shall notify all interested parties of the following:

1. the applicant(s);
2. the start and end dates for the 30-day first comment period; and
3. the address of the ACE internet site where the application is posted.

The Executive Officer shall also make this notification available for public review on the ACE internet site.

(E) Proposed Action and 15-Day Second Public Comment Period.

Within 30 days after the first public comment period ends, the Executive Officer shall notify the applicant and all interested parties of ARB's proposed approval or disapproval. This notification shall propose to approve the application as submitted, disapprove the application, or approve the ACE application with modifications as deemed necessary by the Executive Officer. The notification shall identify the start and end dates for the 15-day second public comment period.

During the second public comment period, any person may comment on the Executive Officer's proposed approval or disapproval of the ACE application and any element of the application. The Executive Officer shall also make this notification available for public review on the ACE internet site.

(F) Final Action.

Within 15 days after the second public comment period ends, the Executive Officer shall take final action to either approve or deny an ACE application and shall notify the applicant accordingly. If the application is denied or modified, the Executive Officer shall state the reasons for the denial or modification in the notification. The notification to the applicant and approved ACE plan, if applicable, shall be made available to the public on the ACE internet site. In addition, the Executive Officer shall consider and address all comments received during the first and second public comment periods, and provide responses to each comment on the ACE internet site.

(G) Renewal of an Approved ACE.

An applicant can apply for renewal of an approved ACE by forwarding the Executive Officer updated information for all elements of the approved ACE for review and re-approval. The Executive Officer must receive all ACE renewal applications 30 days prior to the end of the compliance period.

(H) Notification to the Executive Officer of Changes to an Approved ACE.

An applicant shall notify the Executive Officer in writing within 30 days upon learning of any information that would alter the emissions estimates submitted during any part of the ACE application process. If the Executive Officer has reason to believe that an approved ACE has been granted to a person that no longer meets the criteria for an ACE, the Executive Officer may, pursuant to subsection (f)(3) below, modify or revoke the ACE as necessary to assure that the applicant and subject vessel(s) shall meet the emission reduction requirements in this section.

(3) Revocation or Modification of Approved ACEs.

With 30 days of notice of violation to the ACE holder, the Executive Officer may revoke or modify, as needed, an approved ACE if there have been multiple violations of the ACE provisions or the requirements of the approved ACE plan; or if the Executive Officer has reason to believe that an approved ACE has been granted that no longer meets the criteria or requirements for an ACE or the applicant can no longer comply with the requirements of the approved ACE in its current form. Public notification of a revocation or modification of an approved ACE shall be made available on the ACE internet site.

(g) *Recordkeeping Requirements.*

Beginning January 1, 2009, an owner or operator of harbor craft shall maintain the records specified in this subsection on the vessel or at the vessel's homeport for the life of each engine subject to this section. An owner or operator shall provide such records for inspection to an agent or employee of ARB upon request for all harbor craft subject to this section. Records can be provided as a hard copy, electronic, or any alternative reporting strategy approved by the E.O. may approve an alternative reporting strategy, and shall include, at a minimum, the following:

(1) Owner or Operator Contact Information:

- (A) Company name;
- (B) Contact name, phone and fax number, address, e-mail address;
- (C) Address where vessel is registered; and
- (D) Reporting year.

- (2) Vessel information:
- (A) Harbor craft name;
 - (B) Specify vessel use(s) (ferry, excursion vessel, tugboat, ocean-going tugboat, towboat, push boat, work boat, commercial fishing vessel, charter fishing vessel, crew and supply vessel, pilot vessel, or other if none of the preceding apply);
 - (C) Vessel home port;
 - (D) Vessel build year;
 - (E) U.S. Coast Guard Documentation Number;
 - (F) California Fish and Game License Number;
 - (G) International Maritime Organization (IMO) Number;
 - (H) Call Sign Number; and
 - (I) Maritime Mobile Service Identity Number.
- (3) Engine Information (for each diesel engine on the vessel):
- (A) Current hour meter reading;
 - (B) Make of engine;
 - (C) Model of engine;
 - (D) Engine family (if applicable);
 - (E) Engine serial number;
 - (F) Year of manufacture of engine (if unable to determine, provide its approximate age);
 - (G) Rated brake horsepower;
 - (H) Total engine displacement; and
 - (I) Number of cylinders.
- (4) Operational Information:
- (A) Describe the general use of engine (propulsion or auxiliary engine);
 - (B) Total annual hours of operation, based upon readings of the non-resettable hour meters for previous calendar year per engine (for engines without an hour meter before 2009, provide an estimate);
 - (C) Estimated annual fuel usage per engine; and
 - (D) Estimated percent operating time as a function of distance from shore at the distances below:
 - 1. 0-3 nautical miles;
 - 2. >3-24 nautical miles; and
 - 3. >24 nautical miles from shore.
- (5) Control Equipment (if applicable):
- (A) Type of diesel emission control strategy;
 - (B) Manufacturer of installed diesel emission control strategy;
 - (C) Model of installed diesel emission control strategy;
 - (D) Level of control – air pollutants controlled and percent reductions;
 - (E) Emission control serial number; and
 - (F) Date control equipment installed.

- (6) Maintenance records for each installed engine and diesel emission control strategy.
 - (A) Hour meter reading at last top end rebuild (i.e., less than full rebuild);
 - (B) Hour meter reading at last full engine rebuild; and
 - (C) Number of times full engine rebuild completed.
- (7) For each near-retirement vessel for which an owner or operator is claiming an exemption pursuant to subsection (c)(13), the retirement date of each of the vessels.
- (8) For each engine for which the model year is determined using the "Engine's Model Year + 5" method pursuant to subsection (e)(6)(C)2:
 - (A) the name and contact information (representative, address, and phone number) for the manufacturer of the emission control strategy;
 - (B) the name and type of emission control strategy;
 - (C) the installation date of the emission control strategy; and,
 - (D) if a VDECS is not being used for this purpose, the test plan, and the data demonstrating the emission reductions achieved due to the emission control strategy.
- (9) For each engine for which an owner or operator is claiming an extension pursuant to subsection (e)(6)(E)3, the purchase order or signed contract between the owner or operator and seller of the new engine or equipment that has been purchased to comply with subsection (e)(6)(C) and (6)(D).
- (10) For each engine an owner or operator claims to have replaced, written documentation that the engine has been dismantled or destroyed.
- (11) Records for each engine shall be retained by the owner or operator for the entire engine life.
- (12) All records specific to an Executive Officer approved ACE plan.
- (13) All records specific to a Best Available Control Technology approved by the E.O. pursuant to subsection (e)(5).
- (h) *Initial and Compliance Plan Reporting Requirements.*
- (1) Initial Reporting of California Harbor Craft Fleet. By February 28, 2009, each owner or operator of any harbor craft vessel shall submit the information specified in subsections (g)(1) through (g)(6) for all harbor craft vessels in his/her California fleet. For purposes of this paragraph, "California fleet" means the total population of harbor craft under the direct control of the owner or operator as of January 1, 2009.

- (2) Compliance Plan. By February 28, 2009, each owner or operator of any harbor craft subject to the requirements of subsection (e)(6)(C) and (D) shall submit a Compliance Plan to the E.O. that describes in detail the engine replacements, rebuilds, upgrades, use of DECS, and any other measures the owner or operator plans to use to meet the requirements of subsection (e)(6)(C) and (6)(D) for each of the owner or operator's engines and harbor craft. The owner or operator may revise the Compliance Plan, as needed, but the owner or operator shall notify the E.O. within 10 working days of any changes to the Compliance Plan after the initial Compliance Plan is submitted. The Compliance Plan is for the E.O.'s informational and planning use only, and is not binding on either the E.O. or the owner or operator that submitted the Compliance Plan. The E.O.'s receipt and acceptance of a submitted Compliance Plan shall not constitute or be interpreted as evidence of compliance with the requirements of subsection (e)(6)(C) or (6)(D).
- (3) Demonstration of Compliance. By no later than the applicable compliance date specified in subsection (e)(6)(C), the owner or operator of an in-use harbor craft subject to the requirements of subsection (e) shall provide the following information to the Executive Officer:
 - (A) All information specified in subsections (g)(1) through (g)(6), and
 - (B) The implementation date and the emission control strategy implemented for each engine in accordance with the requirements of subsection (e)(6)(C) and (e)(6)(D), respectively, for purposes of demonstrating compliance.
- (4) Reporting for change of annual hours of operation, vessel category/use, transfers of vessels, or a change of ownership of vessel or engine.
 - (A) The owner or operator shall submit to the E.O. the information specified in subsection (g)(1) through (g)(6) within 30 days of a significant change of annual hours of operation (i.e., enough to change the engine's compliance date), vessel category/use, purchase, lease, rental, or change of ownership of the vessel or engine. In the case of a purchase, lease, rental, or change in ownership, the party in control or possession of the engine or vessel after the transaction shall be responsible for meeting the requirements of this paragraph;
 - (B) Within 90 days of a significant change of annual hours of operation, vessel category/use, purchase, lease, rental, or change of ownership, or by the earliest applicable compliance date specified in subsection (e)(6)(C), whichever is later, the owner or operator of vessels subject to subsection (e)(6) shall submit a new Compliance Plan with the updated information pursuant to the Compliance Plan requirements specified in paragraph 2 above.

(i) *Violations.*

- (1) Any person who is subject to this section and commits a violation of any provision, standard, criteria or requirement in this section is subject to the penalties, injunctive relief, and other remedies specified in Health and Safety Code section 42400 et seq.; other applicable sections in the Health and Safety Code; and other applicable provisions as provided under California law for each violation. Nothing in this section shall be construed to limit or otherwise affect any applicable penalties or other remedies available under federal law.
- (2) Any failure to meet any provision, standard, criteria or requirement in this section, including but not limited to the applicable emission limits; recordkeeping requirements; and Alternative Control of Emissions (ACE) provision, including the requirements of any approved ACE plans, shall constitute a single, separate violation of this section for each hour that a person operates an ocean-going vessel within the Regulated California Waters until such provision, standard, criteria or requirement has been met.
- (3) Any person who is subject to this section is liable for meeting the requirements of this section, notwithstanding any contractual arrangement that person may have with any third-parties.

(j) *Methods to Demonstrate Compliance with Engine and Fuel Standards.*

- (1) Diesel PM, NO_x, NO, CO, HC, NMHC, and CO₂ testing shall be done in accordance with the applicable method specified in the following procedures: International Organization for Standardization (ISO) 8178-2: 1996(E) ("ISO 8178 Part 2"); (2) ISO 8178-4: 1996(E) ("ISO 8178 Part 4"); and applicable methods and procedures specified in 40 CFR Part 94.
- (2) The Executive Officer may approve in writing any alternative test methods not specified in paragraph (1) above that the method's proponent has demonstrated to the E.O.'s satisfaction provides equivalent or better results to the methods in paragraph (1).

(k) *Right of Entry.*

An agent or employee of the Air Resources Board has the right of entry to board any harbor craft for the purpose of inspecting propulsion and auxiliary engines, emission control strategies, fuel systems and fuel storage; collecting fuel sample(s) not to exceed one liter per fuel tank; and acquiring and inspecting records required pursuant to this section.

(l) *Severability.*

If any subsection, paragraph, subparagraph, sentence, clause, phrase, or portion of this regulation is, for any reason, held invalid, unconstitutional, or unenforceable by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of the regulation.

(m) *Submittal of Documents.*

- (1) All documents required under this regulation to be submitted to the Executive Officer shall be submitted as follows:

California Air Resources Board
Stationary Source Division, Harbor Craft
P.O. Box 2815
Sacramento, California 95812-2815

- (2) Electronic submittals of information associated with compliance with this section may be approved by the Executive Officer upon request, provided such electronic submittals use digital signatures that meet the requirements specified in Government Code section 16.5. The Executive Officer may request the submittal of a hard copy of any electronic submittal.

NOTE: Authority cited: Sections 39600, 39601, 41511, 43013, and 43018, Health and Safety Code. Reference: Sections 39000, 39001, 39515, 39516, 41510, 41511, 43013, 43016, and 43018, Health and Safety Code; and *Western Oil and Gas Ass'n v. Orange County Air Pollution Control District*, 14 Cal.3rd 411, 121 Cal.Rptr. 249 (1975).

PROPOSED REGULATION ORDER

AIRBORNE TOXIC CONTROL MEASURE FOR DIESEL ENGINES ON COMMERCIAL HARBOR CRAFT OPERATED WITHIN CALIFORNIA WATERS AND 24 NAUTICAL MILES OF THE CALIFORNIA BASELINE

Adopt new section 93118.5, title 17, chapter 1, subchapter 7.5, California Code of Regulations (CCR), to read as follows:

(Note: The entire text of section 93118.5 is new language.):

Section 93118.5. Airborne Toxic Control Measure for Commercial Harbor Craft.

(a) *Purpose.*

The purpose of this section is to reduce diesel particulate matter (PM), oxides of sulfur (SO_x), and oxides of nitrogen (NO_x) from diesel propulsion and auxiliary engines on harbor craft that operate in any of the waters subject to this section ("Regulated California Waters"). This section implements provisions of the Goods Movement Emission Reduction Plan, adopted by the Air Resources Board (ARB) in April 2006, to reduce emissions and health risk from ports and the movement of goods in California.

(b) *Applicability.*

- (1) Except as provided in subsections (b) and (c), this section applies to any person who sells, supplies, offers for sale, purchases, owns, operates, leases, charters, or rents any new or in-use diesel fueled harbor craft that is operated in any of the Regulated California Waters.
- (2) In the event a harbor craft and its engine(s) are subject to the requirements of this section, and either the regulation for portable compression ignition (CI) engines and equipment (sections 93116-93116.5, title 17, California Code of Regulations (CCR)), or the regulation for off-road CI engines and equipment (sections 2420-2427, title 13, CCR), the requirements of this section shall supersede those of the other two regulations for all engines on the vessel that are permanently affixed to the vessel (i.e., the engine, its fueling system, or its exhaust system is welded or otherwise physically connected to the vessel or other vessel system in such a way that the engine cannot be easily removed for use in a land-based application without modifications).
- (3) This section applies to towboats and tugboats engaged in or intending to engage in the service of pulling, pushing or hauling alongside tank vessels or tank barges.

- (4) Notwithstanding the provisions of title 13, CCR, section 2299.1 and title 17, CCR, section 93118, this section shall apply to any ocean-going tugboats and towboats and shall supersede the requirements of 13 CCR 2299.1 and 17 CCR 93118 in their entirety for ocean-going tugboats and towboats. For purposes of this paragraph, "ocean-going tugboats and towboats" shall mean tugboats and towboats with a "registry" (foreign trade) endorsement on its United States Coast Guard certificate of documentation, or tugboats and towboats that are registered under the flag of a country other than the United States.
- (5) Nothing in this section shall be construed to amend, repeal, modify, or change in any way any other applicable State, U.S. Coast Guard, or other federal requirements. Any person subject to this section shall be responsible for ensuring compliance with both U.S. Coast Guard regulations and the requirements of this section and any other applicable State and federal requirements, including but not limited to, obtaining any necessary approvals, exemptions, or orders from the U.S. Coast Guard.
- (6) This section shall not apply to any engine and equipment that fall within the scope of the preemption of Section 209(e)(1)(A) of the Federal Clean Air Act (42 U.S.C. 7543(e)(1)(A)) and as defined by regulation of the U.S. Environmental Protection Agency.

(c) *Exemptions.*

All or portions of this section do not apply to the following, as provided below, but vessels that are partly or wholly exempt from this section may be subject to other State and federal regulations and requirements. All other portions of this section shall apply unless otherwise specified:

- (1) Harbor craft whose voyages are comprised of continuous and expeditious navigation through any of the Regulated California Waters for the purpose of traversing such bodies of water without entering California internal or estuarine waters or calling at a port, roadstead, or terminal facility are exempt from this section in its entirety. "Continuous and expeditious navigation" includes stopping and anchoring only to the extent such stopping and anchoring are required by the U.S. Coast Guard; rendered necessary by force majeure or distress; or made for the purpose of rendering assistance to persons, ships, or aircraft in danger or distress. This exemption does not apply to the passage of a harbor craft that engages in any of the prejudicial activities specified in United Nations Convention on the Law of the Seas (UNCLOS) 1982, Article 19, subpart 2. Further, notwithstanding any Coast Guard mandated stops or stops due to force majeure or the rendering of assistance, this exemption does not apply to a vessel that was otherwise scheduled or intended to enter California internal or estuarine waters or call at a port, roadstead or terminal facility;
- (2) Temporary replacement vessels are exempt only from the requirements set forth in subsection (e)(6) and only upon written approval by the California Air

Resources Board's Executive Officer (E.O.). All other provisions in this section shall apply to temporary replacement vessels subject to this paragraph. An owner or operator, who has or will have a vessel taken out of service, may apply in writing to the E.O. to operate a temporary replacement vessel pursuant to the following:

- (A) The E.O. shall approve or disapprove such a request within 15 days of receipt. The E.O. shall not unreasonably withhold approval of the request to operate the temporary replacement vessel;
- (B) If the approval is granted, the temporary replacement vessel's operating time will be specified in the approval by the E.O., along with any other terms, conditions or requirements the E.O. deems necessary, but in no case shall the approved operating time in Regulated California Waters for a specific temporary replacement vessel exceed one year total for any single vessel that is temporarily replaced; and
- (C) No temporary replacement vessel exemptions shall be approved for a vessel that is taken out of service more than 12 months in any 24-month period or if the E.O. cannot determine the length of time a vessel has been taken out of service within any 24-month period.

(3) Temporary replacement vessels (SCAQMD) are exempt only from the compliance dates set forth in Table 8 of subsection (e)(6) and only upon written approval from the ARB's Executive Officer (E.O.). All other provisions in this section, including but not limited to, the compliance dates specified in Table 7 of subsection (e)(6), shall apply to temporary replacement vessels subject to this paragraph. An owner or operator, who has or will have a vessel taken out of service, may apply in writing to the E.O. to operate a temporary replacement vessel pursuant to the following:

- (A) The E.O. shall approve or disapprove such a request within 15 days of receipt. The E.O. shall not unreasonably withhold approval of the request to operate the temporary replacement vessel;
- (B) If the approval is granted, the temporary replacement vessel's operating time will be specified in the approval by the E.O., along with any other terms, conditions or requirements the E.O. deems necessary, but in no case shall the approved operating time in Regulated California Waters for a specific temporary replacement vessel exceed one year total for any single vessel that is temporarily replaced; and
- (C) No temporary replacement vessel exemptions shall be approved for a vessel that is taken out of service more than 12 months in any 24-month period or if the E.O. cannot determine the length of time a vessel has been taken out of service within any 24-month period;

(4) Temporary emergency rescue/recovery vessels are exempt from this section in its entirety;

- (5) Recreational vessels are exempt from this section in its entirety;
- (6) Ocean-going vessels, except for ocean-going tugboats and towboats as provided in subsection (b)(4), are exempt from this section in its entirety;
- (7) The following portable engines are exempt from this section in its entirety:
 - (A) All vessel engines, including engines on barges, that are registered with ARB's Portable Engine Registration Program (PERP) (sections 2450 through 2465, title 13, CCR) before January 1, 2009;
 - (B) All vessel engines that are registered with PERP on or after January 1, 2009 and are not permanently affixed to the vessel (i.e., the engine, its fueling system, and its exhaust system are not welded or otherwise physically connected to the vessel or other vessel system, which permits the engine to be easily removed for use in a land-based application without modifications); and
 - (C) All vessel engines that are registered and permitted under local air district regulations before January 1, 2009.
- (8) Registered historic vessels are exempt only from subsection (e)(6);
- (9) U.S. Coast Guard vessels are exempt from this section in its entirety;
- (10) Military tactical support vessels are exempt from this section in its entirety;
- (11) Engines rated less than 50 horsepower are exempt only from subsection (e)(6); and
- (12) Engines and vessels that are operated less than 300 hours per calendar year shall be exempt only from the requirements of subsection (e)(6).
- (13) Near-Retirement Vessels. A harbor craft that is scheduled to be taken out of service and retired permanently and has an engine that has a compliance date, as set forth in subsection (e)(6)(C), that is within one year of the vessel's scheduled retirement date, is exempt from the requirements of subsection (e)(6)(C) and (6)(D), provided the vessel is actually taken out of service and retired on or before the scheduled retirement date. Operation of a vessel subject to this provision after the scheduled retirement date or the engine's compliance date, whichever occurs later, is a separate violation of this section for each and every day of operation during which the vessel's engines do not meet the requirements of subsection (e)(6)(D) or other parts of this section.

(d) *Definitions.*

For purposes of this section, the definitions of Health and Safety Code sections 39010 through 39060 shall apply except as otherwise specified in this section:

- (1) "Air District" means one of the local air pollution control districts (APCDs) or air quality management districts (AQMDs) established under Health and Safety Code section 40000 et seq.
- (2) "Alternative Diesel Fuel" means any fuel used in a diesel engine that is not commonly or commercially known, sold, or represented by the supplier as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM D975-81, "Standard Specification for Diesel Fuel Oils," as modified in May 1982, which is incorporated herein by reference, and does not require engine or fuel system modifications for the engine to operate, although minor modifications (e.g., recalibration of the engine fuel control) may enhance performance. Examples of alternative diesel fuels include, but are not limited to, biodiesel and biodiesel blends not meeting the definition of CARB diesel fuel; Fischer-Tropsch fuels; emulsions of water in diesel fuel; and fuels with a fuel additive, unless:
 - (A) the additive is supplied to the engine fuel by an on-board dosing mechanism, or
 - (B) the additive is directly mixed into the base fuel inside the fuel tank of the engine, or
 - (C) the additive and base fuel are not mixed until engine fueling commences, and no more additive plus base fuel combination is mixed than required for a single fueling of a single engine.
- (3) "Alternative Fuel" means natural gas, propane, ethanol, methanol, gasoline, hydrogen, electricity, or other technologies that do not meet the definition of CARB diesel or alternative diesel fuel. "Alternative fuel" also means any mixture that only contains these fuels.
- (4) "Annual Hours of Operation" means the total number of hours, rounded to the nearest whole hour, a vessel engine is used for all commercial purposes in Regulated California Waters in the calendar year (January 1 to December 31) immediately prior to the engine's applicable compliance date set forth in subsection (e)(6)(C). For example, if a vessel is used for commercial fishing and commercial non-fishing purposes, the total number of hours combined for both uses shall be the total annual hours of operation for that vessel.
- (5) "Auxiliary Engine" means an engine designed primarily to provide power for uses other than propulsion.
- (6) "Averaging" means an exchange of excess reduced regulated emissions among engines on vessels in the same owner's or operator's fleet.

- (7) "Baseline" means the emissions level of a diesel engine using CARB diesel fuel as configured upon initial marine installation.
- (8) "Barge" means a vessel having a flat-bottomed rectangular hull with sloping ends and built with or without a propulsion engine.
- (9) "California Air Resources Board (CARB) Diesel Fuel" means any diesel fuel that meets the specifications of vehicular diesel fuel, as defined in title 13 CCR, sections 2281, 2282, 2284, 2299, and title 17 CCR section 93116.
- (10) "California Baseline" means the mean lower low water line along the California coast, as shown on the following National Oceanic and Atmospheric Administration (NOAA) Nautical Charts as authored by the NOAA Office of Coast Survey, which are incorporated herein by reference:
 - (A) Chart 18600, Trinidad Head to Cape Blanco (January 2002);
 - (B) Chart 18620, Point Arena to Trinidad Head (June 2002);
 - (C) Chart 18640, San Francisco to Point Arena (August 2005);
 - (D) Chart 18680, Point Sur to San Francisco (June 2005);
 - (E) Chart 18700, Point Conception to Point Sur (July 2003);
 - (F) Chart 18720, Point Dume to Purisima Point (January 2005); and
 - (G) Chart 18740, San Diego to Santa Rosa Island (April 2005).
- (11) "CARB" means the California Air Resources Board. CARB may also be referred to as "ARB."
- (12) "Carbon Monoxide (CO)" is a colorless, odorless gas resulting from the incomplete combustion of hydrocarbon fuels.
- (13) "Category 1 engine" means any marine engine with a displacement of less than 5.0 liter per cylinder and with a maximum horsepower (hp) rating of 50 hp or greater.
- (14) "Category 2 engine" means any marine engine with a displacement of 5.0 to less than 30 liter per cylinder.
- (15) "Category 3 engine" means any marine engine with a displacement of greater than 30 liter per cylinder.
- (16) "Certified engine" means an engine that is certified by U.S. EPA as meeting the requirements of title 40, Code of Federal Regulations, Part 94.
- (17) "Coast Guard Vessel" means any vessel or boat owned or operated by the United States Coast Guard, including, but not limited to, Coast Guard cutters and patrol boats that are used for law enforcement, defense operations, marine

science, search and rescue missions, training missions, coastal surveillance, servicing aids to navigation, and marine environmental response.

- (18) "Compliance Date" means the date, as set forth in Table 7 or Table 8 in subsection (e)(6)(C) (whichever applies), by which time a vessel engine must meet the requirements set forth in subsection (e)(6)(D).
- (19) "Crew and Supply Vessel" means a self-propelled vessel used for carrying personnel and/or supplies to and from off-shore and in-harbor locations (including, but not limited to, off-shore work platforms, construction sites, and other vessels).
- (20) "Date of Acquisition" means, for a vessel or engine subject to this regulation, the date of purchase as defined by the date shown on the front of the cashed check, the date of the financial transaction, or the date on the vessel or engine purchasing agreement, whichever is earliest of the three dates.
- (21) "Diesel Engine" means an internal combustion, compression-ignition (CI) engine, or pilot ignition engine with operating characteristics significantly similar to the theoretical diesel combustion cycle. The regulation of power by controlling fuel supply in lieu of a throttle is indicative of a compression ignition engine.
- (22) "Diesel Fuel" means any fuel that is commonly or commercially known, sold, or represented by the supplier as diesel fuel, including any mixture of primarily liquid hydrocarbons (HC) - organic compounds consisting exclusively of the elements carbon and hydrogen - that is sold or represented by the supplier as suitable for use in an internal combustion, compression-ignition engine.
- (23) "Diesel-Fueled" means a diesel engine fueled in whole or part by diesel fuel.
- (24) "Diesel Oxidation Catalyst (DOC)" means an emission control technology that employs a catalyst to promote oxidation processes in diesel exhaust gases, usually designed to reduce emissions of the organic fraction of diesel particulates, gas-phase HC, and CO.
- (25) "Diesel Particulate Filter (DPF)" means an emission control technology that reduces diesel PM emissions in engine exhaust gases by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.
- (26) "Diesel Particulate Matter (Diesel PM)" means the particles found in the exhaust of diesel engines, which may agglomerate and adsorb other species to form structures of complex physical and chemical properties.

- (27) "Direct Control" means owning, operating, having a contract, lease, or other arrangement to operate a harbor craft.
- (28) "Emission Control Strategy" means any device, system, or strategy employed to reduce emissions from an engine, including, but not limited to, diesel oxidation catalysts, selective catalytic reduction systems, diesel particulate filters, alternative diesel fuels, water emulsified fuels, and any combination of the above.
- (29) "Estuarine Waters" means an arm of the sea or ocean that extends inland to meet the mouth of a river.
- (30) "Excursion Vessel" means a vessel used for a short trip or outing to some place, usually for a special purpose and with the intention of a prompt return, including all public or private excursion vessels, such as dinner cruises, harbor, lake, or river tours, scuba diving expeditions, and whale watching tours.
- (31) "Executive Officer" means the Executive Officer of the California Air Resources Board or his/her designee.
- (32) "Ferry" means any self-propelled vessel or boat owned, controlled, operated, or managed for public use in transportation of carrying passengers, property, or vehicles on scheduled services.
- (33) "Fishing Vessel" means a self-propelled boat or ship that is either: (A) a commercial fishing vessel dedicated to the search for, and collection of, fish for the purpose of sale at market or directly to a purchaser(s), or (B) or a charter fishing vessel used for hire by the general public dedicated to the search for and collection of, fish for the purpose of general consumption.
- (34) "Fleet" means the total number of harbor craft owned, rented, or leased by an owner or operator in an air district or distinct locale within Regulated California Waters or the statewide population of a specific vessel type.
- (35) "Fuel Additive" means any substance designed to be added to fuel or fuel systems or other engine-related engine systems such that it is present in-cylinder during combustion.
- (36) "Harbor Craft" (also called "Commercial Harbor Craft") means any private, commercial, government, or military marine vessel including, but not limited to, passenger ferries, excursion vessels, tugboats, ocean-going tugboats, towboats, push-boats, crew and supply vessels, work boats, pilot vessels, supply boats, fishing vessels, research vessels, United States Coast Guard vessels, hovercraft, emergency response harbor craft, and barge vessels that do not otherwise meet the definition of ocean-going vessels or recreational vessels.
- (37) "Homeport" means the port in which a vessel is registered or permanently based.

- (38) "In-Use Harbor Craft" means a harbor craft that is not a new harbor craft.
- (39) "In-Use Marine Engine" means a marine engine that is not a new marine engine.
- (40) "Lease" means a contract by which the owner (lessor) of a property, such as a vessel or engine, grants the right to use or occupy the property to another person (lessee) for a specified term and for a specified rent.
- (41) "Level" means, unless the context requires otherwise, one of three categories of Air Resources Board-verified diesel emission control strategies as set forth in title 13, CCR, section 2700 et seq.: Level 1 means the strategy reduces engine diesel PM emissions by between 25 and 49 percent; Level 2 means the strategy reduces engine diesel PM emissions by between 50 and 84 percent; and Level 3 means the strategy reduces engine diesel PM emissions by 85 percent or greater, or reduces engine PM emissions to less than or equal to 0.01 grams per brake horsepower-hour.
- (42) "Low-Use" means the operation of any compression-ignition engine associated with a harbor craft vessel for less than 300 total annual hours of operation in Regulated California Waters, based on the immediately previous calendar year.
- (43) "Military Tactical Support" means a vessel that meets military specifications, is owned by the U.S. Department of Defense, the U.S. Coast Guard, the U.S. Military services or its allies, and is used in combat, combat support, combat services support, tactical or relief operations or training for such operations.
- (44) "Model Year" means the diesel engine manufacturer's annual production period, which includes January 1st of a calendar year, or if the manufacturer has no annual production period, the calendar year.
- (45) "Multipurpose Harbor Craft" means a harbor craft that serves as a ferry, excursion vessel, tugboat, or towboat but is also used as a work, crew and supply, pilot, fishing, supply, or other vessel.
- (46) "New Harbor Craft" means a harbor craft for which both of the following criteria are true:
- (A) it is built, or its keel is laid, on or after January 1, 2009, and
 - (B) the equitable or legal title to the harbor craft has never been transferred to an ultimate purchaser.

Where the equitable or legal title to the harbor craft is not transferred to an ultimate purchaser prior to the harbor craft being placed into service, the harbor craft ceases to be new when it is placed into service. A harbor craft is placed into service when it is used for its functional purposes.

- (47) “New Marine Engine” means a marine engine for which both of the following criteria are true:
- (C) it is manufactured or imported on or after January 1, 2009, and
 - (D) the equitable or legal title to the engine has never been transferred to an ultimate purchaser.

Where the equitable or legal title to the engine is not transferred to an ultimate purchaser prior to the engine being placed into service, the engine ceases to be new when it is placed into service. An engine is placed into service when it is used for its functional purposes.

- (48) “Nitrogen Oxides (NO_x)” means compounds of nitric oxide (NO), nitrogen dioxide (NO₂), and other oxides of nitrogen, which are typically created during combustion processes and are major contributors to smog formation and acid deposition.
- (49) “Non-Methane Hydrocarbons (NMHC)” means the sum of all hydrocarbon (HC) air pollutants except methane.
- (50) “Ocean-going Vessel” means a commercial, government, or military vessel meeting any one of the following criteria:
- (A) a vessel with a “registry” (foreign trade) endorsement on its United States Coast Guard certificate of documentation, or a vessel that is registered under the flag of a country other than the United States;
 - (B) a vessel greater than or equal to 400 feet in length overall (LOA) as defined in 50 CFR § 679.2, as adopted June 19, 1996;
 - (C) a vessel greater than or equal to 10,000 gross tons (GT ITC) per the convention measurement (international system) as defined in 46 CFR 69.51-.61, as adopted September 12, 1989; or
 - (D) a vessel propelled by a marine compression ignition engine with a per-cylinder displacement of greater than or equal to 30 liters.
- (51) “Operate” means steering or otherwise running the vessel or its functions while the vessel is underway, moored, anchored, or at dock.
- (52) “Own” means having all the incidents of ownership, including the legal title, whether or not that person lends, rents, or pledges the vessel; having or being entitled to the possession of a vessel as the purchaser under a conditional sale contract; or being the mortgagor of a vessel.

- (53) "Particulate Matter (PM)" means any airborne finely divided material, except uncombined water, which exists as a liquid or solid at standard conditions (e.g., dust, smoke, mist fumes, or smog).
- (54) "Person" includes all of the following:
- (A) any person, firm, association, organization, partnership, business trust, corporation, limited liability company, or company;
 - (B) any state or local governmental agency or public district, or any officer or employee thereof; and
 - (C) the United States or its agencies, to the extent permitted by federal law.
- (55) "Pilot Vessel" means a vessel designed for, but not limited to, the transfer and transport of maritime pilots to and from ocean going vessels while such vessels are underway.
- (56) "Port" means any facility used for water-borne commerce. "Port" includes, but is not limited to, facilities also known as "marine terminals" and "roadsteads."
- (57) "Portable CI Engine" means a compression ignition (CI) engine designed and capable of being carried or moved from one location to another. Indicators of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. Portable engines are not self-propelled.
- (58) "Portable Engine Registration Program (PERP)" means the statewide program designed to promote the use of clean portable engines in California, as provided for in title 13, CCR, sections 2450 through 2465. Once registered in the program, engines and equipment units can operate throughout the State without being required to obtain individual permits from each air pollution control or air quality management district in which they operate.
- (59) "Pre-Tier 1 Engine" means an engine that was built before the effective date of U.S. EPA's Tier 1 marine engine standard, as set forth in 40 CFR 94.
- (60) "Propulsion Engine" means an engine that provides power to move a vessel through the water or directs the movement of a vessel.
- (61) "Purchase Date" means the date shown on the front of the cashed check; the date of the financial transaction; or the date on the engine or harbor craft purchase, rental, or lease agreement, whichever is earliest.
- (62) "Push Boat" means any self-propelled vessel engaged in or intending to engage in the service of pulling, pushing, or hauling along side barges or other vessels,

or any combination of pulling, pushing, or hauling along side barges or other vessels. "Push boats" is interchangeable with "towboats."

- (63) "Recreational Vessel" means a vessel that is intended by the vessel manufacturer to be operated primarily for pleasure or leased, rented or chartered to another for the latter's pleasure, excluding the following vessels: (1) vessels of less than 100 gross tons that carry more than 6 passengers, (2) vessels of 100 gross tons or more that carry one or more passengers, and (3) vessels used solely for competition.
- (64) "Registered Historic Vessel" means a vessel listed in the National Register of Historic Places pursuant to the National Historic Preservation Act of 1966 (16 U.S.C. 470).
- (65) "Regulated California Waters" means all of the following:
 - (A) all California internal waters;
 - (B) all California estuarine waters;
 - (C) all California ports, roadsteads, and terminal facilities (collectively "ports");
 - (D) all waters within 3 nautical miles of the California baseline, starting at the California-Oregon border and ending at the California-Mexico border at the Pacific Ocean, inclusive;
 - (E) all waters within 12 nautical miles of the California baseline, starting at the California-Oregon border and ending at the California-Mexico border at the Pacific Ocean, inclusive;
 - (F) all waters within 24 nautical miles of the California baseline, starting at the California-Oregon border to 34.43 degrees North, 121.12 degrees West; inclusive; and
 - (G) all waters within the area, not including any islands, between the California baseline and a line starting at 34.43 degrees North, 121.12 degrees West; thence to 33.50 degrees North, 118.58 degrees West; thence to 32.48 degrees North, 117.67 degrees West; and ending at the California-Mexico border at the Pacific Ocean, inclusive.
- (66) "Rent" means payment for the use of harbor craft or diesel engine for a specified term.
- (67) "Retirement" means the act of taking an engine or harbor craft out of service (i.e., to "retire") so that it subsequently never again operates in any of the Regulated California Waters. "Retirement" does not include an engine or harbor craft that is sold for use outside California then subsequently operated in any of the Regulated California Waters.
- (68) "SCAQMD" shall mean the South Coast Air Quality Management District, as defined in Health and Safety Code section 40410 et seq. and described in

section 60104, title 17, California Code of Regulations, and shall include all waters subject to the jurisdiction of the SCAQMD.

- (69) "Supply Vessel" means a self-propelled vessel used for carrying supplies to and from off-shore and in-harbor locations including, but not limited to, off-shore work platforms, construction sites, and other vessels.
- (70) "Take Out of Service" means the act of dry-docking, mooring, anchoring, or otherwise tying up a harbor craft at dock to conduct maintenance, repairs, replacements, or upgrades such that the vessel cannot be operated in Regulated California Waters while such acts are conducted on the vessel.
- (71) "Tank Barge" means a non-self-propelled vessel constructed or adapted primarily to carry, or that carries, oil or hazardous material in bulk as cargo or cargo residue.
- (72) "Tank Vessel" or "Tanker" means a self-propelled vessel constructed or adapted primarily to carry, or that carries, oil or hazardous material in bulk as cargo or cargo residue.
- (73) "Temporary emergency rescue / recovery vessel" means a vessel whose homeport is not within California and is brought into California for the immediate use of emergency rescue or recovery and returns to its home port outside of California at the conclusion of its emergency rescue / recovery mission.
- (74) "Temporary replacement vessel" means a vessel that is brought into service to temporarily replace a California vessel that has been temporarily taken out of service. There are two types of these vessels: (1) "temporary replacement vessels (SCAQMD)," which are used in the SCAQMD but have a homeport in California outside of the SCAQMD; and "temporary replacement vessels" which are used anywhere in California, including the SCAQMD, and have a homeport outside of California.
- (75) "Tier 1 Marine Emission Standards (Tier 1)" (shown in Table 1 below) means the U.S. EPA marine engine Tier 1 emission standards, as promulgated by U.S. EPA and set forth in "Control of Emissions of Air Pollution from New Marine Compression-Ignition Engines at or Above 37 kW" (64 Federal Register 73299-73373, December 29, 1999)(40 Code of Federal Regulations Part 94), both of which are incorporated herein by reference.

Table 1: U.S. EPA Tier 1 Marine Engine Emission Standards

Category	Power (kW) & Displacement (Liters/cylinder)	Engine Speed	Tier 1 Model Year	PM (g/bhp-hr)	NO _x +HC (g/bhp-hr)	CO (g/bhp-hr)
1, 2, 3, including Recreational	= 37 kW & = 2.5 l/cyl	rpm = 2000	2004	-	7.3	-
		130 = rpm <2000	2004	-	33.57 x rpm ^{-0.2}	-
		rpm <130	2004	-	12.7	-

(40 CFR Part 94)

*converted maximum power rating from 40 CFR 94, which are expressed in g/kW-hr to g/hp-hr by the following: g/kW-hr (0.746) = g/hp-hr.

- (76) “Tier 2 Marine Emission Standards (Tier 2)” (shown in Table 2 below) means the U.S. EPA marine engine Tier 2 emission standards, as promulgated by U.S. EPA and set forth in “Control of Emissions of Air Pollution from New Marine Compression-Ignition Engines at or Above 37 kW” (64 FR 73299-73373, December 29, 1999)(40 CFR Part 94), both of which are incorporated herein by reference.

Table 2: U.S. EPA Tier 2 Marine Engine Emission Standards for NO_x + HC, PM, and CO

Category	Displacement (liters/cylinder)	Date	NO _x +HC (g/bhp-hr)*	PM (g/bhp-hr)*	CO (g/bhp-hr)
1	Disp.< 0.9 and power =50 hp*	2005	5.6	0.30	3.7
	0.9 = Disp. < 1.2	2004	5.4	0.22	3.7
	1.2 = Disp. < 2.5	2004	5.4	0.15	3.7
	2.5 = Disp. < 5.0	2007	5.4	0.15	3.7
2	5.0 = Disp. < 15	2007	5.8	0.20	3.7
	15 = Disp. < 20 (power <_4424 hp*)	2007	6.5	0.37	3.7
	15 = Disp. < 20 (power = 4424 hp*)	2007	7.3	0.37	3.7
	20 = Disp. < 25	2007	7.3	0.37	3.7
	25 = Disp. < 30	2007	8.2	0.37	3.7

(40 CFR Part 94)

*converted maximum power rating from 40 CFR 94, which are expressed in g/kW-hr to g/hp-hr by the following: g/kW-hr (0.746) = g/hp-hr or kW (1.34) = hp

- (77) “Tier 3 Marine Engine Standards (Tier 3)” (shown in Table 3, Table 4, and Table 5 below) means the U.S. EPA proposed Tier 3 Marine Engine standards, as set forth in “Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression-Ignition Engines Less Than 30 Liters Per Cylinder” (72 FR 15937 et seq., April 3, 2007), which is incorporated herein by reference.

Table 3: U.S. EPA Proposed Tier 3 Standards for Marine Diesel Category 1 Commercial Standard Power Density Engines

Rated kW	L/Cylinder	PM g/bhp-hr	NOx + HC g/bhp-hr	Model Year
19 - < 75 kW	<0.9 ^a	0.22	5.6	2009
		0.22 ^b	3.5 ^b	2014
75 – 3700 kW	<0.9	0.10	4.0	2012
	0.9 - <1.2	0.09	4.0	2013
	1.2 - <2.5	0.08 ^c	4.2	2014
	2.5 - <3.5	0.08 ^c	4.2	2013
	3.5 - <7.0	0.08 ^c	4.3	2012

(a) <75 kW engines at or above 0.9 L/cylinder are subject to the corresponding 37-3700 kW standards.

(b) Option: 0.15 PM / 4.3 NOx in 2014.

(c) This standard level drops to 0.07 in 2018 for <600 kW engines.

Table 4: U.S. EPA Proposed Tier 3 Standards for Marine Diesel Category 1 Recreational and Commercial High Power Density Engines

Rated kW	L/Cylinder	PM g/bhp-hr	NOx + HC g/bhp-hr	Model Year
19 - <75 kW	<0.9 ^a	0.22	5.6	2009
		0.22 ^b	3.5 ^b	2014
75 – 3700 kW	<0.9	0.11	4.3	2012
	0.9 - <1.2	0.10	4.3	2013
	1.2 - <2.5	0.09	4.3	2014
	2.5 - <3.5	0.09	4.3	2013
	3.5 - <7.0	0.09	4.0	2012

(a) <75 kW engines at or above 0.9 L/cylinder are subject to the corresponding 75-3700 kW standards.

(b) Option: 0.15 PM / 4.3 NOx+HC in 2014.

Table 5: U.S. EPA Proposed Tier 3 Standards for Marine Diesel Category 2 Engines

Rated kW	L/Cylinder	PM g/bhp-hr	NOx+HC g/bhp-hr	Model Year
=<3700 kW	7 - <15	0.10	4.6	2013
	15 - <20	0.20 ^a	6.5 ^a	2014
	20 - <25	0.20	7.3	2014
	25 - <30	0.20	8.2	2014

(a) For engines at or below 3300 kW in this group, the PM / NOx+HC Tier 3 standards are 0.25 / 5.2.

- (78) “Tier 4 Marine Engine Standards (Tier 4)” (shown in Table 6 below) means the U.S. EPA proposed Tier 4 Marine Engine standards, as set forth in “Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression-Ignition Engines Less Than 30 Liters Per Cylinder” (72 FR 15937 et seq., April 3, 2007), which is incorporated herein by reference.

Table 6: U.S. EPA Proposed Tier 4 Standards for Marine Diesel Category 1 and Category 2 Engines

Rated kW	PM g/bhp-hr	NOx g/bhp-hr	HC g/bhp-hr	Model Year
>3700 kW	0.09 ^a	1.3	0.14	2014
	0.04	1.3	0.14	2016 ^b
1400 – 3700 kW	0.03	1.3	0.14	2016 ^c
600 - <1400 kW	0.03	1.3	0.14	2014 ^b

(a) This standard is 0.19 g/bhp-hr for engines with 15-30 liter/cylinder displacement.

(b) Optional compliance start dates are proposed within these model years; see Draft Locomotive and Marine NPRM Preamble (72 FR 15937 et seq.).

(c) Option for engines with 7-15 liter/cylinder displacement: Tier 4 PM and HC in 2015 and Tier 4 NOx in 2017.

- (79) “Total Hydrocarbons (THC)” or “Hydrocarbons (HC)” means the total mass of open chain and cyclic hydrocarbon molecules.
- (80) “Towboat” means any self-propelled vessel engaged in or intending to engage in the service of pulling, pushing, or hauling along side barges or other vessels, or any combination of pulling, pushing, or hauling along side barges or other vessels.
- (81) “Tugboat” means any self-propelled vessel engaged in, or intending to engage in, the service of pulling, pushing, maneuvering, berthing, or hauling along side other vessels, or any combination of pulling, pushing, maneuvering, berthing or hauling along side such vessels in harbors, over the open seas, or through rivers and canals. Tugboats generally can be divided into three groups: harbor or short haul tugboats, ocean-going or long-haul tugboats, and barge tugboats. “Tugboat” is interchangeable with “towboat” and “push boat” when the vessel is used in conjunction with barges.
- (82) “Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines (Verification Procedure)” means the Air Resources Board (ARB) regulatory procedure codified in title 13, CCR, commencing with section 2700, which is incorporated herein by reference, that engine manufacturers, sellers, owners, or operators may use to

verify the reductions of diesel PM or NO_x from in-use diesel engines through the use of a particular diesel emission control strategy.

- (83) “Verified Diesel Emission Control Strategy (VDECS)” means an emission control strategy, designed primarily for the reduction of diesel PM emissions, which has been verified pursuant to the “Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines” in title 13, California Code of Regulations, commencing with section 2700. VDECS can be verified to achieve Level 1 diesel PM reductions (25 percent), Level 2 diesel PM reductions (50 percent), or Level 3 diesel PM reductions (85 percent). VDECS may also be verified to achieve NO_x reductions.
- (84) “Vessel” or “Marine Vessel” means any tugboat, tanker, freighter, passenger ship, barge, or other boat, ship, or watercraft, except those used primarily for recreation.
- (85) “Work Boat” means a self-propelled vessel that performs duties such as fire/rescue, law enforcement, hydrographic surveys, spill/response, research, training, and construction (including drilling).

(e) *Fuel Use and Engine Emission Requirements.*

[Note: The plain English narrative in this overview is intended as a convenient guide for the reader and in no way adds, deletes, modifies, or otherwise affects the legal requirements and substantive provisions specified in subsection (e) or any other part of this section. Subsection (e) sets forth the various fuel and emission requirements for harbor craft subject to this regulation, and can be broken down as follows:

- Subsection (e)(1) specifies low sulfur fuel use requirements that apply to all harbor craft, new and in-use.
- Subsection (e)(2) specifies the requirement for installing hour-meters on all harbor craft, new and in-use.
- Subsection (e)(3) establishes requirements that apply to transactions involving new engines to be installed on in-use vessels, including a limited 6-month “sell-through” provision for non-complying engines.
- Subsection (e)(4) sets forth requirements that apply to newly acquired new harbor craft, including ferries.
- Subsection (e)(5) sets forth requirements that apply only to newly acquired new ferries, above and beyond those established in subsection (e)(4). These provisions include requirements for applying Best Available Control Technology to new ferries and their engines.
- Subsection (e)(6) is the key provision of this regulation, as it achieves emission reductions by requiring the eventual replacement or cleanup of engines in the fleet of in-use ferries, excursion vessels, tugboats, towboats, push boats, and multipurpose harbor craft. This subsection requires that owners and operators eventually replace or otherwise bring into compliance with the specified engine standards all of their pre-Tier 1 and Tier 1-certified engines in their in-use vessels by the dates shown in the specified compliance schedules. The compliance dates are designed to clean up the fleet’s oldest and dirtiest engines first, while giving more time for relatively newer, Tier 1 engines to be upgraded or replaced. Vessels with their homeport in the South Coast Air Quality Management District (SCAQMD) have an accelerated compliance schedule to reflect that district’s greater need for expedited emission reductions. The compliance schedules are grouped by vessel type, location of the vessel’s home port, the engine’s model year, and the engine’s annual hours of operation.
- Subsection (e)(7) provides for a limited set of circumstances under which the Executive Officer may grant short extensions to the compliance dates if warranted.]

(1) *All Harbor Craft – Low Sulfur Fuel Use Requirement.*

As of January 1, 2009, no person shall fuel any diesel engine on a harbor craft within any of the Regulated California Waters unless the fuel is one of the following:

- (A) CARB Diesel Fuel; or
- (B) an alternative diesel fuel as defined in subsection (d)(2); or
- (C) any alternative diesel fuel that does not meet subsection (e)(1)(B) above but is certified by CARB as meeting the requirements of the Verification Procedure; or
- (D) CARB Diesel Fuel used with fuel additives that meet the requirements of the Verification Procedure; or
- (E) any combination of subsection (e)(1)(A) through (D) above.

(2) *All Harbor Craft – Installation and Use of Non-Resettable Hour Meters.*

As of January 1, 2009, no person shall operate a harbor craft within any of the Regulated California Waters without an installed and properly operating, non-resettable hour meter, which accurately measures the number of hours an engine operates. The hour meter shall be installed on each diesel engine on the vessel in a manner that allows reasonable personnel access without impediment.

(3) *All In-Use Harbor Craft – Requirements for Newly Acquired Engines.*

Except as otherwise provided in this paragraph, as of January 1, 2009, no person shall sell, purchase, offer for sale, lease, rent, import, or otherwise acquire a diesel engine for an in-use harbor craft, which is intended to operate or actually operates in any of the Regulated California Waters, unless that engine:

- (A) meets the applicable Tier 2 or Tier 3 engine standards in effect on the date of acquisition of the engine. Once Tier 4 engine standards come into effect, a newly acquired engine meeting the Tier 3 standard may be used to comply with this paragraph unless the engine being replaced on the in-use vessel was certified to a Tier 4 standard, in which case the newly acquired engine must meet at least the Tier 4 standard, or cleaner, or
- (B) does not meet the requirements specified in paragraph (A) above, but it is sold, supplied, or offered for sale for use in the harbor craft within 6 months after the effective date of the applicable Tier 2, Tier 3, or Tier 4 standards. The provisions of this paragraph (B) shall apply only to instances when the engine is sold, supplied, or offered for sale within the 6 month period specified above. Engines that are subsequently sold, supplied, or offered for sale after the 6 month period specified above shall be subject to the requirements specified in paragraph (A), regardless of whether it was

previously sold, supplied, or offered for sale within the 6 month period specified above.

(4) *All New Harbor Craft (Including All New Ferries) – Requirements for Newly Acquired Vessels.*

As of January 1, 2009, no person shall sell, purchase, offer for sale, lease, rent, import, or otherwise acquire a new harbor craft for use in any of the Regulated California Waters unless each of the diesel engines on the vessel meets the applicable Tier 2, Tier 3, or Tier 4 standards in effect on the date of vessel acquisition. Additional requirements shall apply for diesel propulsion engines in newly acquired new ferries, as specified in subsection (e)(5).

(5) *Selected New Ferries Only – Additional Requirements for All Newly Acquired Propulsion Engines.*

(A) As of January 1, 2009, no person shall sell, purchase, offer for sale, import, or otherwise acquire a new ferry with the capacity to transport 75 or more passengers for use in any of the Regulated California Waters unless each propulsion diesel engine on the vessel:

1. meets either the Tier 2 or Tier 3 standards that are in effect on the date of vessel acquisition; and
2. will be operated only in conjunction with the use of Best Available Control Technology (BACT), as determined and pre-approved by the Executive Officer pursuant to this provision.

(B) In lieu of installing or using BACT pursuant to paragraph (A)2 above, a person may comply with paragraph (A)2 by installing on the new ferry a propulsion engine(s) that is certified to the Tier 4 standards, if a Tier 4-certified engine is available at the time that the new ferry is delivered. If no Tier 4-certified engines are available at the time of ferry delivery, the provisions of paragraphs (A)1 and (A)2 shall apply.

(C) For purposes of this section, “BACT” is the diesel emission control strategy (DECS), whether verified or unverified pursuant to 13 CCR section 2700 et seq., that is determined by the E.O. as meeting all of the following criteria:

1. it provides or is expected to continuously provide the greatest reduction feasible of NOx or diesel PM when used with the ferry’s propulsion diesel engine;
2. the use of BACT does not result in an increase of 10 percent or more of any air pollutant, including NOx and diesel PM, relative to the engine’s emissions of that air pollutant without the use of BACT; and

3. either the DECS manufacturer or an authorized dealer of the DECS determines or otherwise agrees with the E.O. that use of the DECS on or with the new ferry's propulsion engine(s) would not invalidate or otherwise adversely affect the propulsion engine's original warranty.

DECS shall include, but not be limited to, exhaust treatment controls and the use of alternative fuels or fuel additives.

- (D) The E.O. shall determine the appropriate level of BACT and specify such BACT in an Executive Order granting such approval. Applications to comply with the requirements of paragraph (A)2 by using BACT shall follow the application and review procedure set forth below:

1. Application Process.

For all new ferries for which the keel is laid on or after January 1, 2009, the application for BACT approval shall be submitted in writing to the E.O. for evaluation before the keel is laid. The BACT application shall contain, at a minimum, the following information:

- a. the applicant company's name, address, and contact information;
- b. information specific to the harbor craft and engine(s) on which BACT will be used, including the vessel name and identification number(s); engine make, model, and serial numbers; and all other information that uniquely identify the engine;
- c. certification documentation, engineering calculations, emissions test data, or other information that establishes the diesel PM and NO_x emissions of the engine in combination with the proposed BACT. Emissions and emission reduction estimates shall include both diesel PM and NO_x emissions and shall be expressed in grams per brake horsepower-hour (g/bhp-hr) unless otherwise specified by the E.O. Information submitted pursuant to this provision shall be used as follows:
 - i. The E.O. shall use the information to compare the emissions resulting from the proposed use of BACT with the emissions quantified in BACT determinations previously approved by the E.O.;
 - ii. If there are no previous BACT determinations available for comparison, the E.O. shall use ARB staff's best engineering judgment to determine if the proposed BACT provides the greatest feasible reduction of diesel PM or NO_x; and
 - iii. The E.O. may require the applicant to submit additional emissions data for other air pollutants if the E.O. believes that the proposed use of BACT may increase any air pollutant by 10

percent or more relative to the engine emissions without the proposed BACT.

- d. the proposed recordkeeping, reporting, monitoring, and testing procedures that the applicant plans to use to demonstrate continued effectiveness of the BACT.

2. E.O. Review and Final Decision-Making Process.

- a. Within 15 days after receiving a BACT application, the E.O. shall notify the applicant whether the application is deemed sufficiently complete to proceed with further evaluation. If the application is deemed incomplete, the notification shall identify the application's deficiencies. The E.O. shall have an additional 15-day period for reviewing each set of documents or information submitted in response to an incomplete determination. Nothing in this subsection prohibits the E.O. from requesting additional information from the applicant, during any part of the BACT application process, which the E.O. determines is necessary to evaluate the application.
- b. Within 30 days of deeming an application complete, the E.O. shall take final action to either approve or deny a BACT application, and the E.O. shall notify the applicant accordingly. If the application is denied or modified, the Executive Officer shall state the reasons for the denial or modification in the notification. The E.O. shall specify all terms, conditions, and requirements the E.O. believes are necessary for the ferry engine and BACT to operate properly and reduce emissions of air pollutants consistent with this section. The reporting and recordkeeping requirements specific to the use of BACT shall include, but not be limited to:
 - i. hours of operation for the engine and BACT and fuel usage;
 - ii. usage of any alternative fuels, additives, agents, flow rates, and emission test results;
 - iii. maintenance procedures for the engine(s) and its BACT;
 - iv. any other measurements or recordings specified by the E.O.

The approval/disapproval notification to the applicant and approved BACT shall be made available to the public on ARB's internet site.

3. Post-Approval Vessel, Engine, and BACT Operation.

Any person subject to this provision shall maintain operating records and other information in the manner and form specified by the E.O. in the BACT approval. All records and reports created pursuant to this

provision shall be submitted to ARB upon request and shall be maintained and retained for ARB inspection a minimum of three years.

(6) *In-Use Engines and Vessels – Schedules for Meeting Tier 2 or Tier 3 Standards.*

- (A) For Pre-Tier 1 and Tier 1-Certified Engines on Ferries, Excursion Vessels, Tugboats, Towboats, Push Boats and Multipurpose Harbor Craft Only.

Except as provided in subsection (c), beginning January 1, 2009, no person shall own, operate, sell, purchase, offer for sale, lease, rent, import, or otherwise acquire an in-use ferry, excursion vessel, tugboat, towboat, push boat or multipurpose harbor craft with pre-Tier 1 or Tier 1-certified engines for use in any of the Regulated California Waters unless the vessel's in-use pre-Tier 1 or Tier 1-certified engines meet the requirements of subsection (e)(6)(D) on or before the compliance date set forth in Table 7 or Table 8 of subsection (e)(6)(C) below, whichever date is applicable. For purposes of this section, a multipurpose harbor craft's total annual hours of operation shall be the basis for determining that vessel's compliance date in Table 7 or Table 8 of subsection (e)(6)(C).

- (B) [Reserved for Future Use].

- (C) Compliance Schedules and Determination of Engine Model Year.

Except as otherwise provided for in subsection (c), in this subsection (e)(6)(C), and in subsection (e)(6)(D), the following compliance dates shall apply to all in-use engines and persons subject to subsection (e)(6)(A). Table 7 specifies the compliance dates, by engine model year and annual hours of operation, that apply to in-use engines in harbor craft subject to subsection (e)(6)(A) and for which the vessel's homeport is located outside the South Coast Air Quality Management District (SCAQMD). Table 8 contains the compliance dates, by engine model year and annual hours of operation, that apply to in-use engines in harbor craft subject to subsection (e)(6)(A) and for which the vessel's homeport is located within SCAQMD.

For purposes of determining the applicable compliance date in Table 7 or Table 8, the engine's model year shall be determined using any of the following:

1. the engine's actual model year of manufacture;
2. the engine's effective model year based on the "Engine's Model Year + 5" method, which is as follows:

The "Engine's Model Year + 5" method extends the effective model year if the person uses an emissions control strategy pursuant to this paragraph. To use this method, the person must use an emission control strategy with the existing in-use engine that reduces either diesel

PM or NO_x by a minimum of 25 percent and does not increase either pollutant by more than 10 percent, relative to the emissions of those pollutants without the use of the emission control strategy. If the emission control strategy is not a VDECS, the person shall demonstrate compliance with this paragraph by submitting emissions data that demonstrate the non-verified emission control technology achieves a diesel PM or NO_x emission reduction of 25 percent or better, using the test methods specified in subsection (j). Upon approval of the E.O., the person may submit data derived from the use of other test methods to demonstrate the required 25 percent minimum emission reductions, such as:

- a. marine engine certification test data for the harbor craft propulsion or auxiliary engine, or engine manufacturer emission test data; or
- b. emissions test data derived from another engine that is configured and used in a substantially similar way to the in-use engine on which the emission control strategy is to be used; or
- c. emissions test data used to meet the regulatory requirements of the ARB Verification Procedure for the non-verified emission control strategy implemented.

A person's use of an emissions control strategy pursuant to this provision extends the engine's effective compliance date to the compliance date for a similar engine that is five model years newer (i.e., the actual model year for the engine with the emissions control strategy + 5). For example, the owner of a 1995 model year engine on a tugboat with a homeport outside of SCAQMD and which operates in Regulated California Waters for 750 hours in 2013, would normally be required to meet a December 31, 2014 compliance date, as set forth in Table 7. However, if an emissions control strategy that meets the requirements of this provision is implemented with this engine prior to the 2014 nominal compliance date, the engine's effective compliance date would be extended to the compliance date for a 2000 model year engine (i.e., the 1995 model year + 5). Accordingly, in that scenario, the engine's effective compliance date would be December 31, 2016; or

3. the engine's effective model year based on the "Engine's Tier 1 Rebuild Model Year" method, which is as follows;

This method requires the person to demonstrate to the E.O.'s written satisfaction that the existing pre-2004 model year engine was rebuilt to conform with U.S. EPA Tier 1 standards prior to January 1, 2008. If the E.O. is thus satisfied, the effective model year of the Tier 1 rebuilt engine for purposes of determining the Table 7 or Table 8 compliance date shall be the actual year in which the Tier 1 rebuild occurred.

Table 7. 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
1996 - 2000	=1500	12/31/2015
1996 - 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

[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 owner or operator must bring the engine into compliance with the requirements of subsection (e)(6)(D) by December 31, 2012.].

Table 8. 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

[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 owner or operator must bring the engine into compliance with the requirements of subsection (e)(6)(D) by December 31, 2010.].

(D) Compliance Requirements:

Any person subject to the requirements of subsection (e)(6)(A) shall use at least one of the following compliance methods for each engine on the vessel by the date specified in Table 7 or Table 8 above, whichever compliance date applies:

1. Method 1: Replacement of the in-use pre-Tier 1 or Tier-1 certified engine with a U.S. EPA certified Tier 2 or Tier 3 engine; the Tier 2 or Tier 3 standard that applies to the in-use engine is the U.S. EPA standard that would apply to the engine had that engine been a new engine at the time of the compliance date specified in subsection (e)(6)(A). Tier 3-certified engines may still be used to comply with this paragraph, even if Tier 4-certified engines become available by the engine's compliance date; or
2. Method 2: Demonstrate to the E.O.'s written satisfaction that the existing pre-Tier 1 or Tier 1-certified in-use engine already meets the Tier 2 or Tier 3 standard that would apply to the in-use engine had that engine been a new engine at the time of the compliance date specified in subsection (e)(6)(A). A demonstration that the existing engine meets the Tier 3 standard may still be used to comply with this paragraph, even if Tier 4 standards come into effect by the engine's compliance date. The in-use engine may be rebuilt to a cleaner standard or implement a diesel emission control strategy to aid in meeting these standards. The demonstration may involve using the test method specified in section (j) or through an alternative method approved by the Executive Officer. Upon approval by the Executive Officer, other data may be used to demonstrate emission reduction level, such as:
 - (a) the engine manufacturer's certification test data or other emissions test data for that in-use engine; or
 - (b) emissions test data derived from another engine that is configured and used in a substantially similar way to the in-use engine; or
 - (c) emissions test data used to meet the regulatory requirements of ARB's Verification Procedure for the non-verified emission control strategy implemented; or
3. Method 3: Demonstrate to the E.O.'s written satisfaction that the in-use engine has not and will not operate 300 or more hours per calendar year.

(E) Compliance Extensions.

The E.O. may grant an owner or operator an extension from a compliance deadline specified in subsection (e)(6)(C) for any one of the reasons set forth

below. An owner or operator granted such an extension shall be deemed to be in compliance with the requirements of subsection (e)(6)(D) only upon written authorization from the E.O. made pursuant to this provision and only until the end of the extension period. Except as provided in paragraph 3 below, compliance extensions granted pursuant to this provision may not be combined with any other compliance date extensions, including those set forth in this provision and in subsection (e)(6)(C)2 and (C)3. Except as provided in paragraphs 2 and 3 below, under no circumstances shall the E.O. grant more than one compliance extension for any individual engine, set of engines, or harbor craft.

1. *Change in Annual Hours of Operation.* The E.O. may grant a one-time, maximum one year extension to the compliance dates set forth in subsection (e)(6)(C), provided the applicant demonstrates to the E.O.'s satisfaction that the following has occurred:
 - a. The vessel owner or operator reasonably determined the vessel engine's nominal compliance date based on the engine's hours of operation two years before the nominal compliance date;
 - b. In the year immediately prior to the nominal compliance date, the engine's annual hours of operation significantly increased from the prior year such that the engine's effective compliance date would have been accelerated from one compliance date to an earlier compliance date.

[Note: For example, let's assume an operator has a 1982-model year engine on a tugboat, which has a homeport outside of SCAQMD and operates for 750 hours in Regulated California Waters in 2010. If it is reasonable for the operator to assume the annual hours of operation in 2011 will be similar to 2010, the operator would project from Table 7 that the engine's compliance date would be December 31, 2012, and would plan his operations accordingly. However, if the vessel engine's operation increased substantially to 1600 hours in 2011, the engine normally would then have its compliance date accelerated to December 31, 2011, according to Table 7. The one-year extension would, therefore, extend the engine's actual compliance date back to what it would have been without the change in hours of operation (i.e., back to December 31, 2012).].

2. *No Suitable Engine Replacement for Harbor Craft.* The E.O. may grant to an owner or operator a one year extension, which can be renewed annually, provided the owner or operator demonstrates to the E.O.'s written satisfaction that there is no suitable Tier 2-certified or Tier 3-certified replacement engine available anywhere that can be used in his/her specific vessel and he/she cannot otherwise meet the requirements of subsection (e)(6). For purposes of this paragraph, the only considerations for an engine's suitability to replace an existing engine are whether the replacement engine is similar in horsepower to

the existing engine, can fit within the vessel's engine compartment, and installation of the replacement engine would not cause the vessel to violate U.S. Coast Guard or other applicable safety regulations; the cost of the replacement engine shall not be a valid basis for replacement suitability. The application for and issuance of an initial extension and subsequent extensions pursuant to this paragraph shall be subject to the following requirements:

- a. For an initial extension and all subsequent annual extensions to be granted pursuant to this paragraph, the E.O. shall follow the same procedures for applying, determining completeness, allowing public review and considering public comments, taking final action, and publishing E.O. decisions that are set forth in subsection (g) for ACE applications;
- b. The E.O. shall consider all information submitted by the public, including but not limited to, information related to the availability of replacement engines suitable for the applicant's vessel;
- c. Except for the engine(s) for which the extension is sought, the applicant shall demonstrate that all other engines subject to the owner or operator's direct control meet the requirements of subsection (e)(6);
- d. The application shall be submitted to and received by the E.O. no later than six months before the compliance date of the engine for which the extension is requested;
- e. The application shall identify each engine for which the extension is requested;
- f. For each engine identified in paragraph (E)2.e above, the applicant shall provide a detailed description of the reasons and factors that serve as the basis for the applicant's claim that no suitable replacement engines are available. This description shall include, but not be limited to, detailed engineering diagrams, calculations, and citations to applicable U.S. Coast Guard regulations that support the applicant's claim that there are no suitable replacement engines available.
- g. The E.O. may grant additional one year extensions, provided the following requirements are met:
 - i. All procedures specified in paragraph 2.a and 2.b above are followed;

- ii. The application for an additional extension demonstrates the engines identified in paragraph 2.c remain in compliance with this section;
 - iii. The application is received by the E.O. no sooner than six months but no later than 2 months before the expiration of the previous extension;
 - iv. The application identifies the engine(s) for which the additional extension is requested;
 - v. For each engine identified in paragraph iv. above, the applicant shall provide a detailed description of the reasons and factors that serve as the basis for the applicant's claim that suitable replacement engines remain unavailable. This description shall include, but not be limited to, detailed engineering diagrams, calculations, and citations to applicable U.S. Coast Guard regulations that support the applicant's claim that there are still no suitable replacement engines available.
3. *Equipment Manufacturer Delays or Installation Difficulties.* Upon written request by a vessel owner or operator, the E.O. may grant a six-month extension to the compliance date set forth in subsection (e)(6)(C), provided all the following criteria are met:
- a. the owner or operator ordered the new replacement engine or other equipment necessary to comply with the requirements of subsection (e)(6)(D) prior to the compliance date set forth in subsection (e)(6)(C);
 - b. the purchase order identified in subpart a above was placed with the manufacturer no later than six months before the engine's compliance date;
 - c. the new engine or equipment has not been received or installed since it was ordered due to manufacturing delays or excessive difficulties encountered by the engine or equipment installer;
 - d. the applicant for the extension provides documentation to the E.O.'s satisfaction that demonstrates the criteria in subparts a through c above have been met.
4. *Same Fleet Vessel Engines that Share Compliance Dates.* Upon written request, the E.O. may grant to owners or operators of multiple vessels in the same fleet that have engines with the same compliance date a one-time, maximum one-year extension to the compliance date set forth in subsection (e)(6)(C), for each set of engines that have the same compliance date. For all other engines on the vessels not

subject to an extension granted pursuant to this paragraph, the compliance dates for such engines shall remain as set forth in subsection (e)(6)(C).

(F) *Special Provisions Applicable to the Use of a Diesel Emission Control Strategy (DECS).*

The requirements specified in this paragraph shall apply to any use of a DECS pursuant to subsections (e)(5) and (e)(6) and are in addition to any other applicable requirements. Once the DECS is installed or otherwise employed, the owner or operator shall continue to operate and maintain the DECS, in accordance with the manufacturer directions, to achieve the original level of emission reductions that the DECS was designed and intended to achieve. In the event a DECS fails, breaks down, or is otherwise damaged such that it cannot be repaired (collectively referred to hereinafter as “fail” or “failure”), the vessel owner or operator shall, within 90 days of the DECS failure, either replace the failed DECS with another DECS or employ another method that meets the requirements of subsection (e)(6)(D) and other applicable provisions of this section. The determination of whether a DECS cannot be repaired shall be from either the DECS manufacturer or an authorized dealer. The owner or operator shall provide to the E.O. the same documentation for the replacement DECS that was required for the DECS that failed, and shall obtain the same E.O. approvals that were required with the failed DECS.

(f) *Alternative Control of Emissions (ACE).*

(1) Requirements.

(A) The purpose of this subsection is to allow any person (“person” or “applicant”) the option of complying with the requirements of this subsection in lieu of the requirements of subsection (e). Under this subsection, alternative emission control strategies (AECS) can be implemented as an alternative control of emissions (ACE), provided they result in no greater emissions, expressed in pounds, of diesel PM and NO_x and no increase of 10 percent or more of any other air pollutants from the engines over the applicable calendar year, relative to the emissions that would have occurred under compliance with subsection (e).

(B) An applicant wishing to participate in an ACE may include one or more harbor craft in the ACE, but an applicant shall only include harbor craft that the person owns or operates under their direct control.

(C) No harbor craft shall be included in more than one ACE plan.

- (D) Harbor craft included in an ACE must continue to be included in the ACE for the duration of the ACE.
- (E) AECS may include, but are not limited to, any combination of the following:
1. engine modifications;
 2. exhaust treatment control;
 3. engine repower;
 4. use of alternative fuels or fuel additives;
 5. shore-side power;
 6. fleet averaging; and
 7. any other measures that sufficiently reduce emissions.
- (F) The ACE application demonstrating compliance with this subsection shall contain, at a minimum, the following information:
1. the company name, address, and contact information;
 2. the harbor craft and engine(s) subject to the ACE, including the vessel name and identification number(s), engine make, model, and serial numbers, and other information that uniquely identify the engine;
 3. documentation, calculations, emissions test data, or other information that establishes the diesel PM and NO_x reductions, expressed in pounds, shall be equivalent to or greater than the emission reductions that would have been achieved upon compliance with subsection (e), including but not limited to the requirements specified in subsection (e)(6)(C) and (6)(D);
 4. the proposed recordkeeping, reporting, monitoring, and testing procedures that the applicant plans to use to demonstrate continued compliance with the ACE.
- (G) Emission reduction estimates demonstrating equivalence with the requirements of subsection (e) shall include diesel PM and NO_x emissions only from harbor craft to which the ACE applies that port within a single specific California air district, or another defined geographic area approved by the E.O.
- (H) Any owner or operator subject to an approved ACE shall maintain operating records in a manner and form as specified by the E.O. as an element of any approved ACE. Required records shall include, but are not limited to:
1. reporting and recordkeeping requirements specified in subsections (g) and (h);
 2. maintenance procedures; and

3. emissions test results.

Any owner or operator subject to an approved ACE shall retain records and reports on each vessel or nearby office for the lifetime of each engine and shall submit these records and reports to the E.O. in the manner specified in the approved ACE or upon request by the E.O.

- (I) Emission reductions included in an ACE shall not include reductions that are otherwise required by any local, State, or federal rule, regulation, or statute, or that are achieved or estimated from equipment not located in the region to which the ACE applies.
- (J) No person may operate any harbor craft under an ACE unless the applicant has first been notified in writing by the E.O. that the ACE application has been approved. Prior to such approval, applicants shall comply with the provisions of this section, including the requirements in subsection (e)(6)(C) and (6)(D).

(2) Application Process.

- (A) Applications for an ACE shall be submitted in writing to the Executive Officer for evaluation.
- (B) The Executive Officer shall establish an internet site ("ACE internet site") in which all documents pertaining to an ACE application shall be made available for public review. The Executive Officer shall also provide a copy of all such documents to each person who has requested copies of the documents; these persons shall be treated as interested parties. The Executive Officer shall provide two separate public comment periods during the ACE Application process, as specified in subsection (f)(2)(D) and (f)(2)(E).
- (C) Completeness Determination.

Within 15 days after receiving an ACE application, the Executive Officer shall notify an applicant whether the application is deemed sufficiently complete to proceed with further evaluation. If the application is deemed incomplete, the notification shall identify the application's deficiencies. The Executive Officer shall have an additional 15-day period for reviewing each set of documents or information submitted in response to an incomplete determination. Nothing in this subsection prohibits the Executive Officer from requesting additional information from the applicant, during any part of the ACE application process, which the Executive Officer determines is necessary to evaluate the application.

(D) Notice of Completeness and 30-Day First Public Comment Period.

After an ACE application has been deemed complete, the Executive Officer shall provide a 30-day public comment period to receive comments on any element of the ACE application and whether the Executive Officer should approve or disapprove the ACE application based on the contents and merits of the application. The Executive Officer shall notify all interested parties of the following:

1. the applicant(s);
2. the start and end dates for the 30-day first comment period; and
3. the address of the ACE internet site where the application is posted.

The Executive Officer shall also make this notification available for public review on the ACE internet site.

(E) Proposed Action and 15-Day Second Public Comment Period.

Within 30 days after the first public comment period ends, the Executive Officer shall notify the applicant and all interested parties of ARB's proposed approval or disapproval. This notification shall propose to approve the application as submitted, disapprove the application, or approve the ACE application with modifications as deemed necessary by the Executive Officer. The notification shall identify the start and end dates for the 15-day second public comment period.

During the second public comment period, any person may comment on the Executive Officer's proposed approval or disapproval of the ACE application and any element of the application. The Executive Officer shall also make this notification available for public review on the ACE internet site.

(F) Final Action.

Within 15 days after the second public comment period ends, the Executive Officer shall take final action to either approve or deny an ACE application and shall notify the applicant accordingly. If the application is denied or modified, the Executive Officer shall state the reasons for the denial or modification in the notification. The notification to the applicant and approved ACE plan, if applicable, shall be made available to the public on the ACE internet site. In addition, the Executive Officer shall consider and address all comments received during the first and second public comment periods, and provide responses to each comment on the ACE internet site.

(G) Renewal of an Approved ACE.

An applicant can apply for renewal of an approved ACE by forwarding the Executive Officer updated information for all elements of the approved ACE for review and re-approval. The Executive Officer must receive all ACE renewal applications 30 days prior to the end of the compliance period.

(H) Notification to the Executive Officer of Changes to an Approved ACE.

An applicant shall notify the Executive Officer in writing within 30 days upon learning of any information that would alter the emissions estimates submitted during any part of the ACE application process. If the Executive Officer has reason to believe that an approved ACE has been granted to a person that no longer meets the criteria for an ACE, the Executive Officer may, pursuant to subsection (f)(3) below, modify or revoke the ACE as necessary to assure that the applicant and subject vessel(s) shall meet the emission reduction requirements in this section.

(3) Revocation or Modification of Approved ACEs.

With 30 days of notice of violation to the ACE holder, the Executive Officer may revoke or modify, as needed, an approved ACE if there have been multiple violations of the ACE provisions or the requirements of the approved ACE plan; or if the Executive Officer has reason to believe that an approved ACE has been granted that no longer meets the criteria or requirements for an ACE or the applicant can no longer comply with the requirements of the approved ACE in its current form. Public notification of a revocation or modification of an approved ACE shall be made available on the ACE internet site.

(g) *Recordkeeping Requirements.*

Beginning January 1, 2009, an owner or operator of harbor craft shall maintain the records specified in this subsection on the vessel or at the vessel's homeport for the life of each engine subject to this section. An owner or operator shall provide such records for inspection to an agent or employee of ARB upon request for all harbor craft subject to this section. Records can be provided as a hard copy, electronic, or any alternative reporting strategy approved by the E.O. may approve an alternative reporting strategy, and shall include, at a minimum, the following:

(1) Owner or Operator Contact Information:

- (A) Company name;
- (B) Contact name, phone and fax number, address, e-mail address;
- (C) Address where vessel is registered; and
- (D) Reporting year.

- (2) Vessel information:
- (A) Harbor craft name;
 - (B) Specify vessel use(s) (ferry, excursion vessel, tugboat, ocean-going tugboat, towboat, push boat, work boat, commercial fishing vessel, charter fishing vessel, crew and supply vessel, pilot vessel, or other if none of the preceding apply);
 - (C) Vessel home port;
 - (D) Vessel build year;
 - (E) U.S. Coast Guard Documentation Number;
 - (F) California Fish and Game License Number;
 - (G) International Maritime Organization (IMO) Number;
 - (H) Call Sign Number; and
 - (I) Maritime Mobile Service Identity Number.
- (3) Engine Information (for each diesel engine on the vessel):
- (A) Current hour meter reading;
 - (B) Make of engine;
 - (C) Model of engine;
 - (D) Engine family (if applicable);
 - (E) Engine serial number;
 - (F) Year of manufacture of engine (if unable to determine, provide its approximate age);
 - (G) Rated brake horsepower;
 - (H) Total engine displacement; and
 - (I) Number of cylinders.
- (4) Operational Information:
- (A) Describe the general use of engine (propulsion or auxiliary engine);
 - (B) Total annual hours of operation, based upon readings of the non-resettable hour meters for previous calendar year per engine (for engines without an hour meter before 2009, provide an estimate);
 - (C) Estimated annual fuel usage per engine; and
 - (D) Estimated percent operating time as a function of distance from shore at the distances below:
 - 1. 0-3 nautical miles;
 - 2. >3-24 nautical miles; and
 - 3. >24 nautical miles from shore.
- (5) Control Equipment (if applicable):
- (A) Type of diesel emission control strategy;
 - (B) Manufacturer of installed diesel emission control strategy;
 - (C) Model of installed diesel emission control strategy;
 - (D) Level of control – air pollutants controlled and percent reductions;
 - (E) Emission control serial number; and
 - (F) Date control equipment installed.

- (6) Maintenance records for each installed engine and diesel emission control strategy.
 - (A) Hour meter reading at last top end rebuild (i.e., less than full rebuild);
 - (B) Hour meter reading at last full engine rebuild; and
 - (C) Number of times full engine rebuild completed.
- (7) For each near-retirement vessel for which an owner or operator is claiming an exemption pursuant to subsection (c)(13), the retirement date of each of the vessels.
- (8) For each engine for which the model year is determined using the "Engine's Model Year + 5" method pursuant to subsection (e)(6)(C)2:
 - (A) the name and contact information (representative, address, and phone number) for the manufacturer of the emission control strategy;
 - (B) the name and type of emission control strategy;
 - (C) the installation date of the emission control strategy; and,
 - (D) if a VDECS is not being used for this purpose, the test plan, and the data demonstrating the emission reductions achieved due to the emission control strategy.
- (9) For each engine for which an owner or operator is claiming an extension pursuant to subsection (e)(6)(E)3, the purchase order or signed contract between the owner or operator and seller of the new engine or equipment that has been purchased to comply with subsection (e)(6)(C) and (6)(D).
- (10) For each engine an owner or operator claims to have replaced, written documentation that the engine has been dismantled or destroyed.
- (11) Records for each engine shall be retained by the owner or operator for the entire engine life.
- (12) All records specific to an Executive Officer approved ACE plan.
- (13) All records specific to a Best Available Control Technology approved by the E.O. pursuant to subsection (e)(5).
- (h) *Initial and Compliance Plan Reporting Requirements.*
- (1) Initial Reporting of California Harbor Craft Fleet. By February 28, 2009, each owner or operator of any harbor craft vessel shall submit the information specified in subsections (g)(1) through (g)(6) for all harbor craft vessels in his/her California fleet. For purposes of this paragraph, "California fleet" means the total population of harbor craft under the direct control of the owner or operator as of January 1, 2009.

- (2) Compliance Plan. By February 28, 2009, each owner or operator of any harbor craft subject to the requirements of subsection (e)(6)(C) and (D) shall submit a Compliance Plan to the E.O. that describes in detail the engine replacements, rebuilds, upgrades, use of DECS, and any other measures the owner or operator plans to use to meet the requirements of subsection (e)(6)(C) and (6)(D) for each of the owner or operator's engines and harbor craft. The owner or operator may revise the Compliance Plan, as needed, but the owner or operator shall notify the E.O. within 10 working days of any changes to the Compliance Plan after the initial Compliance Plan is submitted. The Compliance Plan is for the E.O.'s informational and planning use only, and is not binding on either the E.O. or the owner or operator that submitted the Compliance Plan. The E.O.'s receipt and acceptance of a submitted Compliance Plan shall not constitute or be interpreted as evidence of compliance with the requirements of subsection (e)(6)(C) or (6)(D).
- (3) Demonstration of Compliance. By no later than the applicable compliance date specified in subsection (e)(6)(C), the owner or operator of an in-use harbor craft subject to the requirements of subsection (e) shall provide the following information to the Executive Officer:
 - (A) All information specified in subsections (g)(1) through (g)(6), and
 - (B) The implementation date and the emission control strategy implemented for each engine in accordance with the requirements of subsection (e)(6)(C) and (e)(6)(D), respectively, for purposes of demonstrating compliance.
- (4) Reporting for change of annual hours of operation, vessel category/use, transfers of vessels, or a change of ownership of vessel or engine.
 - (A) The owner or operator shall submit to the E.O. the information specified in subsection (g)(1) through (g)(6) within 30 days of a significant change of annual hours of operation (i.e., enough to change the engine's compliance date), vessel category/use, purchase, lease, rental, or change of ownership of the vessel or engine. In the case of a purchase, lease, rental, or change in ownership, the party in control or possession of the engine or vessel after the transaction shall be responsible for meeting the requirements of this paragraph;
 - (B) Within 90 days of a significant change of annual hours of operation, vessel category/use, purchase, lease, rental, or change of ownership, or by the earliest applicable compliance date specified in subsection (e)(6)(C), whichever is later, the owner or operator of vessels subject to subsection (e)(6) shall submit a new Compliance Plan with the updated information pursuant to the Compliance Plan requirements specified in paragraph 2 above.

(i) *Violations.*

- (1) Any person who is subject to this section and commits a violation of any provision, standard, criteria or requirement in this section is subject to the penalties, injunctive relief, and other remedies specified in Health and Safety Code section 42400 et seq.; other applicable sections in the Health and Safety Code; and other applicable provisions as provided under California law for each violation. Nothing in this section shall be construed to limit or otherwise affect any applicable penalties or other remedies available under federal law.
- (2) Any failure to meet any provision, standard, criteria or requirement in this section, including but not limited to the applicable emission limits; recordkeeping requirements; and Alternative Control of Emissions (ACE) provision, including the requirements of any approved ACE plans, shall constitute a single, separate violation of this section for each hour that a person operates an ocean-going vessel within the Regulated California Waters until such provision, standard, criteria or requirement has been met.
- (3) Any person who is subject to this section is liable for meeting the requirements of this section, notwithstanding any contractual arrangement that person may have with any third-parties.

(j) *Methods to Demonstrate Compliance with Engine and Fuel Standards.*

- (1) Diesel PM, NO_x, NO, CO, HC, NMHC, and CO₂ testing shall be done in accordance with the applicable method specified in the following procedures: International Organization for Standardization (ISO) 8178-2: 1996(E) ("ISO 8178 Part 2"); (2) ISO 8178-4: 1996(E) ("ISO 8178 Part 4"); and applicable methods and procedures specified in 40 CFR Part 94.
- (2) The Executive Officer may approve in writing any alternative test methods not specified in paragraph (1) above that the method's proponent has demonstrated to the E.O.'s satisfaction provides equivalent or better results to the methods in paragraph (1).

(k) *Right of Entry.*

An agent or employee of the Air Resources Board has the right of entry to board any harbor craft for the purpose of inspecting propulsion and auxiliary engines, emission control strategies, fuel systems and fuel storage; collecting fuel sample(s) not to exceed one liter per fuel tank; and acquiring and inspecting records required pursuant to this section.

(l) *Severability.*

If any subsection, paragraph, subparagraph, sentence, clause, phrase, or portion of this regulation is, for any reason, held invalid, unconstitutional, or unenforceable by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of the regulation.

(m) *Submittal of Documents.*

- (1) All documents required under this regulation to be submitted to the Executive Officer shall be submitted as follows:

California Air Resources Board
Stationary Source Division, Harbor Craft
P.O. Box 2815
Sacramento, California 95812-2815

- (2) Electronic submittals of information associated with compliance with this section may be approved by the Executive Officer upon request, provided such electronic submittals use digital signatures that meet the requirements specified in Government Code section 16.5. The Executive Officer may request the submittal of a hard copy of any electronic submittal.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39666 and 41511, Health and Safety Code. Reference: Sections 39650, 39658, 39659, 39666, 41510, and 41511, Health and Safety Code.