

Appendix A

Proposed Airborne Toxic Control Measure for Stationary Compression Ignition Engines

PROPOSED REGULATION ORDER

AIRBORNE TOXIC CONTROL MEASURE FOR STATIONARY COMPRESSION IGNITION ENGINES

Adopt new section 93115, title 17, California Code of Regulations, to read as follows:

17 CCR, section 93115. Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines.

(a) Purpose

The purpose of this airborne toxic control measure (ATCM) is to reduce diesel particulate matter (PM) and criteria pollutant emissions from stationary diesel-fueled compression ignition (CI) engines.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39665, 39666, 41511, and 43013, Health and Safety Code. Reference: Sections 39002, 39650, 39658, 39659, 39665, 39666, 40000, 41511, and 43013.

(b) Applicability

- (1) Except as provided in subsection (c), this section applies to any person who either sells a stationary CI engine, offers a stationary CI engine for sale, leases a stationary CI engine, or purchases a stationary CI engine for use in California.
- (2) Except as provided in subsection (c), this section applies to any person who owns or operates a stationary CI engine in California with a rated brake horsepower greater than 50 (>50 bhp).
- (3) No later than 120 days after the approval of this section by the Office of Administrative Law, each air pollution control and air quality management district (district) shall:
 - (A) implement and enforce the requirements of this section; or
 - (B) propose and adopt its own ATCM to reduce diesel PM from stationary diesel-fueled CI engines as provided in Health and Safety Code section 39666(d).

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39665, 39666, 41511, and 43013, Health and Safety Code. Reference: Sections 39002, 39650, 39658, 39659, 39665, 39666, 40000, 41511, and 43013.

(c) Exemptions

- (1) The requirements of this section do not apply to portable CI engines or CI engines used to provide the motive power for on-road and off-road vehicles.
- (2) The requirements of this section do not apply to CI engines used for the propulsion of marine vessels or auxiliary CI engines used on marine vessels.
- (3) The requirements of this section do not apply to in-use stationary CI engines used in agricultural operations.
- (4) The requirements specified in subsections (e)(2)(A) and (e)(2)(C) do not apply to new stationary CI engines used in agricultural operations.
- (5) The requirements specified in subsection (e)(3) do not apply to single cylinder cetane test engines used exclusively to determine the cetane number of diesel fuels in accordance with American Society for Testing and Materials (ASTM) Standard D 613-03b.
- (6) The requirements specified in subsections (e)(2)(B)3. and (e)(2)(D)1. do not apply to in-use stationary diesel-fueled CI engines used in emergency standby or prime applications that, prior to January 1, 2005, were required in writing by the district to meet either minimum technology requirements or performance standards implemented by the district from the *Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines*, October 2000, which is incorporated herein by reference.
- (7) The requirements specified in subsection (e)(2)(B)3. do not apply to permitted in-use stationary emergency standby diesel-fueled CI engines that will be removed from service or replaced prior to January 1, 2009, in accordance with an approved Office of Statewide Health Planning Development (OSHPD) Compliance Plan that has been approved prior to January 1, 2009, except that this exemption does not apply to replacement engines for the engines that are removed from service under the OSHPD plan.
- (8) The requirements in subsections (e)(1), (e)(2)(C), and (e)(2)(D) do not apply to any stationary diesel-fueled CI engine used solely for:
 - (A) the training of United States Air Force (USAF) maintenance officers or enlisted personnel, or civilian government employees of the USAF, and is identified as Class I Training Equipment in accordance with Air Force Space Command Instruction 21-0114, dated March 27, 2000, which is incorporated herein by reference; or
 - (B) the training of United States (U.S.) Navy personnel, and is identified as a shore based trainer that must be made fully compatible with fleet systems both in configuration and design capability in order to fully support fleet

- training requirements and sustain operational readiness, in accordance with Office of the Chief of Naval Operations (OPNAV) Instruction 1500.51B, dated March 31, 1989, which is incorporated herein by reference; or
- (C) the training of U.S. Department of Defense (U.S. DoD) students or personnel of any U.S. military branch in the operation, maintenance, repair, and rebuilding of engines, similar to those owned or operated by the U.S. DoD or U.S. military services that are used in combat, combat support, combat service support, tactical or relief operations, or training for such activities.
- (9) The requirements specified in subsections (e)(1) and (e)(2) do not apply to stationary diesel-fueled CI engines used solely on San Nicolas or San Clemente Islands. The Ventura County Air Pollution Control District APCO and the South Coast Air Quality Management District APCO shall review the land use plans for the island in their jurisdiction at least once every five (5) years and withdraw this exemption if the land use plans are changed to allow use by the general public of the islands.
- (10) The requirements specified in subsection (e)(2) do not apply to stationary diesel-fueled engines used solely on outer continental shelf (OCS) platforms located within 25 miles of California's seaward boundary.
- (11) **Request for Exemption for Emergency Engines at Nuclear Facilities.** Consistent with section 39666(d) of the Health and Safety Code, the district APCO may approve a Request for Exemption from the provisions of subsection (e)(2)(B)3. for any in-use stationary diesel-fueled CI engines, provided the approval is in writing, the writing specifies all of the following conditions to be met by the owner or operator, and the writing contains the following information to be provided by the district:
- (A) the engine is an emergency standby engine;
 - (B) the engine is subject to the requirements of the U.S. Nuclear Regulatory Commission;
 - (C) the engine is used solely for the safe shutdown and maintenance of a nuclear facility when normal power service fails or is lost;
 - (D) the engine undergoes maintenance and testing operations for no more than 200 hours cumulatively per calendar year; and
 - (E) the district specifies in the approval any additional criteria that must be met.
- (12) **Request for Exemption for Low-Use Prime Engines Outside of School Boundaries.** Consistent with section 39666(d) of the Health and Safety Code, the district APCO may approve a Request for Exemption from the provisions of subsection (e)(2)(D)1. for any in-use stationary diesel-fueled CI engine located beyond school boundaries, provided the approval is in writing, the writing specifies all of the following conditions to be met by the owner or operator, and the writing contains the following information to be provided by the district:

- (A) the engine is a prime engine;
 - (B) the engine is located more than 1000 feet from a school at all times; and
 - (C) the engine operates no more than 20 hours cumulatively per year.
- (13) The requirements in subsections (e)(2)(B)3. and (e)(2)(D)1. do not apply to in-use dual-fueled diesel pilot CI engines that use an alternative fuel or an alternative diesel fuel.
- (14) The requirements in subsection (e)(1), (e)(2)(A)3., (e)(2)(B)3., (e)(2)(C)1., and (e)(2)(D)1. do not apply to dual-fueled diesel pilot CI engines that use diesel fuel and digester gas or landfill gas.
- (15) The requirements in subsections (e)(2)(B)3. and (e)(2)(D)1. do not apply to in-use stationary diesel-fueled CI engines that have selective catalytic reduction systems.
- (16) The requirements of subsection (e)(2)(B)3. do not apply to in-use emergency fire pump assemblies that are driven directly by stationary diesel- fueled CI engines and only operated the number of hours necessary to comply with the testing requirements of National Fire Protection Association (NFPA) 25 - *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*, 1998 edition, as referenced through NFPA 13 - *Standard for the Installation of Sprinkler Systems*, 1999 edition, in the 2001 California Building Code, 24 CCR part 2, vol. 2, chapter 35, Uniform Building Code Standards, all three of which are incorporated herein by reference.
- (17) The requirements of subsection (e)(1), (e)(2)(A)3., (e)(2)(B)3., (e)(2)(C), and (e)(2)(D) do not apply to any stationary diesel-fueled CI engine used to power equipment that is owned by the National Aeronautics and Space Administration (NASA) and used solely at a space shuttle landing site, provided the District APCO approves this exemption in writing consistent with section 39666(d) of the Health and Safety Code. This exemption only applies to diesel engines that power equipment which is maintained in the same configuration as similar equipment at all space shuttle facilities.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39665, 39666, 41511, and 43013, Health and Safety Code. Reference: Sections 39002, 39650, 39658, 39659, 39665, 39666, 40000, 41511, and 43013.

(d) Definitions

For purposes of this section, the following definitions apply:

- (1) “Agricultural Operations” means the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a

livelihood, or conducting agricultural research or instruction by an educational institution. Agricultural operations do not include activities involving the processing or distribution of crops or fowl.

- (2) "Air Pollution Control Officer" means the Executive Officer or director of a district, or his or her designated representative.
- (3) "Alternative Fuel" means natural gas, propane, ethanol, or methanol.
- (4) "Alternative Diesel Fuel" means any fuel used in a CI engine that is not a reformulated CARB diesel fuel as defined in Title 13 CCR Sections 2281 and 2282 or an alternative fuel, 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; 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.
- (5) "Approach Light System with Sequenced Flasher Lights in Category 1 and Category 2 Configurations (ALSF-1 and ALSF-2)" means high intensity approach lighting systems with sequenced flashers used at airports to illuminate specified runways during category II or III weather conditions, where category II means a decision height of 100 feet and runway visual range of 1,200 feet, and category III means no decision height or decision height below 100 feet and runway visual range of 700 feet.
- (6) "Baseline or Baseline Emissions" means the emissions level of a diesel-fueled engine using CARB diesel fuel as configured upon initial installation or by January 1, 2003, whichever is later.
- (7) "California Air Resources Board (CARB) Diesel Fuel" means any diesel fuel that meets the specifications defined in subsection (d)(12) and meets the specifications defined in title 13 CCR, sections 2281-2282.
- (8) "Carbon Monoxide (CO)" is a colorless, odorless gas resulting from the incomplete combustion of hydrocarbon fuels.

- (9) "Compression Ignition (CI) Engine" means an internal combustion 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.
- (10) "Control Area" means any electrical region in California that regulates its power generation in order to balance electrical loads and maintain planned interchange schedules with other control areas.
- (11) "Cumulatively" means the aggregation of hours or days of engine use, and any portion of an hour or day of engine use, toward a specified time limit(s).
- (12) "Diesel Fuel" means any fuel that meets the American Society for Testing and Materials (ASTM) D975-03, *Standard Specification for Diesel Fuel Oils*, which is incorporated herein by reference. "Diesel Fuel" includes, but is not limited to, No. 1-D, No. 1-D low sulfur, No. 2-D, No. 2-D low sulfur, and No. 4-D diesel fuel oils.
- (13) "Diesel-Fueled" means fueled by diesel fuel, CARB diesel fuel, or jet fuel, in whole or part.
- (14) "Diesel Particulate Filter (DPF)" means an emission control technology that reduces PM emissions 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.
- (15) "Diesel Particulate Matter (PM)" means the particles found in the exhaust of diesel-fueled CI engines as determined in accordance with the test methods identified in subsection (i).
- (16) "Digester Gas" is any gas derived from anaerobic decomposition of organic matter.
- (17) "District" means an air pollution control district or air quality management district created or continued in existence pursuant to provisions of Part 3 (commencing with section 40000) of the California Health and Safety Code. Each district is headed by an Air Pollution Control Officer (APCO).
- (18) "Dual-fuel Diesel Pilot Engine" means a dual-fueled engine that uses diesel fuel as a pilot ignition source at an annual average ratio of less than 5 parts diesel fuel to 100 parts total fuel on an energy equivalent basis.
- (19) "Dual-fuel Engine" means any CI engine that is engineered and designed to operate on a combination of alternative fuels, such as compressed natural gas (CNG) or liquefied petroleum gas (LPG) and diesel fuel or an alternative diesel

fuel. These engines have two separate fuel systems, which inject both fuels simultaneously into the engine combustion chamber.

- (20) “Emergency Standby Engine” means a stationary engine operated solely during an emergency use, except as otherwise permitted for maintenance and testing operations, emission testing, to provide power in response to the notification of an impending rotating outage, and initial start-up testing, as specified in (e)(2)(A) and (e)(2)(B).
- (21) “Emergency Use” means providing electrical power or mechanical work during any of the following events and subject to the following conditions:
- (A) the failure or loss of all or part of normal electrical power service or normal natural gas supply to the facility:
 - 1. which is caused by any reason other than the enforcement of a contractual obligation the owner or operator has with a third party or any other party; and
 - 2. which is demonstrated by the owner or operator to the district APCO’s satisfaction to have been beyond the reasonable control of the owner or operator;
 - (B) the failure of a facility’s internal power distribution system:
 - 1. which is caused by any reason other than the enforcement of a contractual obligation the owner or operator has with a third party or any other party; and
 - 2. which is demonstrated by the owner or operator to the district APCO’s satisfaction to have been beyond the reasonable control of the owner or operator;
 - (C) the pumping of water or sewage to prevent or mitigate a flood or sewage overflow;
 - (D) the pumping of water for fire suppression or protection;
 - (E) the powering of ALSF-1 and ALSF-2 airport runway lights under category II or III weather conditions.
- (22) “Emission Control Strategy” means any device, system, or strategy employed with a diesel-fueled CI engine that is intended to reduce emissions including, but not limited to, particulate filters, diesel oxidation catalysts, selective catalytic reduction systems, fuel additives used in combination with particulate filters, alternative diesel fuels, and any combination of the above.
- (23) “End User” means any person who purchases or leases a stationary diesel-fueled engine for operation in California. Persons purchasing engines for resale are not considered “end users.”
- (24) “Executive Officer” means the executive officer of the Air Resources Board, or his or her designated representative.

- (25) "Facility" means one or more contiguous properties, in actual physical contact or separated solely by a public roadway or other public right-of-way, under common ownership on which engines operate.
- (26) "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 and has any of the following effects: decreased emissions, improved fuel economy, increased performance of the engine; or assists diesel emission control strategies in decreasing emissions, or improving fuel economy or increasing performance of the engine.
- (27) "Generator Set" means a CI engine coupled to a generator that is used as a source of electricity.
- (28) "Hydrocarbon (HC)" means the sum of all hydrocarbon air pollutants.
- (29) "In-Use" means a CI engine that is not a "new" CI engine.
- (30) "Initial Start-up Testing" means operating the engine or supported equipment to ensure their proper performance either:
- (A) for the first time after initial installation of a new stationary diesel-fueled CI engine at a facility, or
 - (B) for the first time after installation of emission control equipment on an in-use stationary diesel-fueled CI engine.
- (31) "Jet Fuel" means fuel meeting any of the following specifications:
- (A) ASTM D 1655-02, *Standard Specification for Aviation Turbine Fuels*, which is incorporated herein by reference. Jet fuels meeting this specification includes Jet A, Jet A-1, and Jet B;
 - (B) Military Detail (MIL-DTL) 5624T, *Turbine Fuels, Aviation, Grades Jet Propellant (JP) JP-4, JP-5, and JP-5/JP8 ST*, dated September 18, 1998, which is incorporated herein by reference; and
 - (C) Military Test (MIL-T) 83133E, *Turbine Fuels, Aviation, Kerosene Types, North Atlantic Treaty Organization (NATO) F-34 (JP-8), NATO F-35 and JP-8+100*, dated April 1, 1999, which is incorporated herein by reference.
- (32) "Landfill Gas" means any gas derived through any biological process from the decomposition of waste buried within a waste disposal site.
- (33) "Location" means any single site at a facility.
- (34) "Maintenance and Testing" means operating an emergency standby CI engine to evaluate the ability of the engine or its supported equipment to perform

during an emergency. Supported equipment includes, but is not limited to, generators, pumps, transformers, switchgear, and breakers.

(35) "Model Year" means the stationary CI 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.

(36) "New" or "New CI Engine" means the following:

(A) a stationary CI engine installed at a facility after January 1, 2005, including an engine relocated from an off-site location after January 1, 2005, except the following shall be deemed in-use engines:

1. a replacement stationary CI engine that is installed to temporarily replace an in-use engine while the in-use engine is undergoing maintenance and testing, provided the replacement engine emits no more than the in-use engine and the replacement engine is not used more than 180 days cumulatively in any 12-month rolling period;
2. an engine that was approved by the District for installation prior to the effective date of this section but is not installed until after January 1, 2005;
3. an engine that is one of four or more engines owned by an owner or operator and is relocated prior to January 1, 2008 to an offsite location that is owned by the same owner or operator;
4. an engine installed prior to or on January 1, 2005 in a facility used in agricultural operations that is owned by an owner or operator, which is subsequently relocated to an offsite location that is owned by the same owner or operator.

(B) a stationary CI engine that has been reconstructed after January 1, 2005 shall be deemed a new engine unless:

1. the sum of the costs of all individual reconstructions of that engine after January 1, 2005 is less than 50% of the lowest-available purchase price, determined at the time of the most recent reconstruction, of a complete, comparably-equipped new engine (within $\pm 10\%$ of the reconstructed engine's brake horsepower rating).

For purposes of this definition, the cost of reconstruction and the cost of a comparable new engine shall not include the cost of equipment and devices required to meet the requirements of this ATCM.

(37) "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.

- (38) “Non-Methane Hydrocarbons (NMHC)” means the sum of all hydrocarbon air pollutants except methane.
- (39) “Owner or Operator” means any person subject to the requirements of this section, including but not limited to:
- (A) an individual, trust, firm, joint stock company, business concern, partnership, limited liability company, association, or corporation including but not limited to, a government corporation; and
 - (B) any city, county, district, commission, the state or any department, agency, or political subdivision thereof, any interstate body, and the federal government or any department or agency thereof to the extent permitted by law.
- (40) “Particulate Matter (PM)” means the particles found in the exhaust of CI engines, which may agglomerate and adsorb other species to form structures of complex physical and chemical properties.
- (41) “Portable CI Engine” means a compression ignition (CI) engine designed and capable of being carried or moved from one location to another, except as provided in subsection (d)(50). Indicators of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. The provisions of this definition notwithstanding, an engine with indicators of portability that remains at the same facility location for more than 12 consecutive rolling months or 365 rolling days, whichever occurs first, not including time spent in a storage facility, shall be deemed a stationary engine.
- (42) “Prime CI Engine” means a stationary CI engine that is not an emergency standby CI engine.
- (43) “Rated Brake Horsepower” means the maximum horsepower rating for an engine, as specified by the manufacturer or manufacturer-authorized engine dealer or distributor and listed on the nameplate of the unit.
- (44) “Receptor location” means any location outside the boundaries of a facility where a person may experience exposure to diesel exhaust due to the operation of a stationary diesel-fueled CI engine. Receptor locations include, but are not limited to, residences, businesses, hospitals, daycare centers, and schools.
- (45) “Reconstruction” means the rebuilding of the engine or the replacement of engine parts, including pollution control devices, but excluding operating fluids; lubricants; and consumables such as air filters, fuel filters, and glow plugs that are subject to regular replacement.

- (46) "Rotating Outage" means a controlled, involuntary curtailment of electrical power service to consumers as ordered by the Utility Distribution Company.
- (47) "School" means any public or private school used for purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes.
- (48) "Selective Catalytic Reduction (SCR) System" means an emission control system that reduces NO_x emissions through the catalytic reduction of NO_x in diesel exhaust by injecting nitrogen-containing compounds into the exhaust stream, such as ammonia or urea.
- (49) "Seller" means any person who sells, leases, or offers for sale any stationary diesel-fueled engine directly to end users.
- (50) "Stationary CI Engine" means a CI engine that is designed to stay in one location, or remains in one location. A CI engine is stationary if any of the following are true:
- (A) the engine or its replacement is attached to a foundation, or if not so attached, will reside at the same location for more than 12 consecutive months. Any engine such as backup or standby engines, that replaces an engine at a location and is intended to perform the same or similar function as the engine(s) being replaced, shall be included in calculating the consecutive time period. The cumulative time of all engine(s), including the time between the removal of the original engine(s) and installation of the replacement engine(s), will be counted toward the consecutive time period; or
 - (B) the engine remains or will reside at a location for less than 12 consecutive months if the engine is located at a seasonal source and operates during the full annual operating period of the seasonal source, where a seasonal source is a stationary source that remains in a single location on a permanent basis (at least two years) and that operates at that single location at least three months each year; or
 - (C) the engine is moved from one location to another in an attempt to circumvent the 12 month residence time requirement. The period during which the engine is maintained at a storage facility shall be excluded from the residency time determination.
- (51) "Stationary Source" means an emission unit or aggregation of emission units which are located on the same or contiguous properties and which units are under common ownership or entitlement to use. Stationary sources also include those emission units or aggregation of emission units located in the California Coastal Waters. "Emission Unit" means any article, machine,

equipment, contrivance, process, or process line that emit(s) or reduce(s), or may emit or reduce, the emissions of any air contaminant, except motor vehicles.

- (52) "Utility Distribution Company" means one of several organizations that control energy transmission and distribution in California. Utility Distribution Companies include, but are not limited to, the Pacific Gas and Electric Company, the San Diego Gas and Electric Company, Southern California Edison, Los Angeles Department of Water and Power, the Imperial Irrigation District, and the Sacramento Municipal Utility District.
- (53) "Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines (Verification Procedure)" means the ARB regulatory procedure codified in title 13, CCR, sections 2700-2710, which is incorporated herein by reference, that engine manufacturers, sellers, owners, or operators may use to verify the reductions of diesel PM or NOx from in-use diesel engines using a particular emission control strategy.
- (54) "Verified Diesel Emission Control Strategy" means an emission control strategy, designed primarily for the reduction of diesel PM emissions, which has been verified pursuant to the Verification Procedure.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39665, 39666, 41511, and 43013, Health and Safety Code. Reference: Sections 39002, 39650, 39658, 39659, 39665, 39666, 40000, 41511, and 43013.

(e) Requirements

(1) Fuel and Fuel Additive Requirements for New and In-Use Stationary CI Engines That Have a Rated Brake Horsepower of Greater than 50

- (A) As of January 1, 2005, except as provided for in subsection (c), all new stationary CI engines and all in-use stationary diesel-fueled CI engines shall use only:
1. CARB Diesel Fuel, or
 2. an alternative diesel fuel that meets the requirements of the Verification Procedure, or
 3. an alternative fuel, or
 4. CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure, or
 5. any combination of (e)(1)(A)1. through (e)(1)(A)4. above.

(2) Operating Requirements and Emission Standards for New and In-Use Stationary Diesel-Fueled CI Engines That Have a Rated Brake Horsepower of Greater than 50 (>50 bhp).

(A) *New Emergency Standby Diesel-Fueled CI Engine (>50 bhp) Operating Requirements and Emission Standards*

1. No new stationary emergency standby diesel-fueled CI engine (>50 bhp) located on school grounds shall operate for non-emergency use, including maintenance and testing purposes, when any school-sponsored activities are taking place.
2. No new stationary emergency standby diesel-fueled CI engine (>50 bhp) shall operate in response to the notification of an impending rotating outage, unless the following criteria are met:
 - a. the engine's permit to operate allows operation of the engine in anticipation of a rotating outage, or the District has established a policy or program that authorizes operation of the engine in anticipation of a rotating outage; and
 - b. the Utility Distribution Company has ordered rotating outages in the control area where the engine is located, or has indicated it expects to issue such an order at a specified time; and
 - c. the engine is located in a control area that is subject to the rotating outage; and
 - d. the engine is operated no more than 30 minutes prior to the time when the Utility Distribution Company officially forecasts a rotating outage in the control area; and
 - e. the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
3. As of January 1, 2005, except as provided in subsection (c), no person shall sell, offer for sale, purchase, or lease for use in California any stationary emergency standby diesel-fueled CI engine that has a rated brake horsepower greater than 50 unless it meets the following applicable emission standards, and no person shall operate any new stationary emergency standby diesel-fueled CI engine that has a rated brake horsepower greater than 50, unless it meets all of the following applicable operating requirements and emission standards which are summarized in Table I:

a. Diesel PM Standard and Hours of Operating Requirements

I. General Requirements: New stationary emergency standby diesel-fueled engines (>50 bhp) shall:

- i. emit diesel PM at a rate less than or equal to 0.15 g/bhp-hr; or
- ii. meet the current model year diesel PM standard specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same horsepower rating (Title 13 CCR section 2423), whichever is more stringent; and
- iii. not operate more than 50 hours per year for maintenance and testing purposes. This subsection does not limit engine operation for emergency use and for emission testing to show compliance with (e)(2)(A)3.

II. Consistent with section 39666(d) of the Health and Safety Code, the District may allow a new emergency standby diesel-fueled CI engine (> 50 hp) to operate up to 100 hours per year for maintenance and testing purposes on a site-specific basis, provided the diesel PM emission rate is less than or equal to 0.01 g/bhp-hr.

| TABLE 1: SUMMARY OF THE EMISSION STANDARDS AND OPERATING REQUIREMENTS FOR NEW STATIONARY EMERGENCY STANDBY DIESEL-FUELED CI ENGINES > 50 BHP (SEE SUBSECTION (e)(2)(A)3.) | | | | |
|---|---|--|---|--|
| DIESEL PM | | | OTHER POLLUTANTS | |
| DIESEL PM STANDARDS (g/bhp-hr) | MAXIMUM ALLOWABLE ANNUAL HOURS OF OPERATION FOR ENGINES MEETING DIESEL PM STANDARDS | | | HC, NO _x , NMHC+NO _x , AND CO STANDARDS (g/bhp-hr) |
| | Emergency Use | Non-Emergency Use | | |
| | | Emission Testing to show compliance ² | Maintenance & Testing (hours/year) | |
| ≤0.15 ¹ | Not Limited by ATCM ³ | Not Limited by ATCM ³ | 50 | Off-Road CI Engine Certification Standards for an off-road engine of the same model year and horsepower rating, or Tier 1 standards for an off-road engine of the same horsepower rating. ⁴ |
| ≤0.01 ¹ | Not Limited by ATCM ³ | Not Limited by ATCM ³ | 51 to 100 (Upon approval by the District) | |

1. Or off-road certification standard (title 13 CCR section 2423) for an off-road engine with the same horsepower rating, whichever is more stringent
2. Emission testing limited to testing to show compliance with subsections (e)(2)(A)3.
3. May be subject to emission or operational restrictions as defined in current applicable district rules, regulations, or policies.
4. The option to comply with the Tier 1 standards is available only if no off-road engine certification standards have been established for an off-road engine of the same model year and brake horsepower rating as the new stationary emergency standby diesel-fueled CI engine.

- b. HC, NO_x, NMHC + NO_x, and CO standards: New stationary emergency standby diesel-fueled CI engines (> 50 bhp) must meet the standards for off-road engines of the same model year and horsepower rating as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423). If no standards have been established for an off-road engine of the same model year and horsepower rating as the new stationary emergency standby diesel-fueled CI engine, then the new stationary emergency standby diesel-fueled CI engine shall meet the Tier 1 standards in title 13, CCR, section 2423 for an off-road engine of the same horsepower rating, irrespective of the new stationary emergency standby diesel-fueled CI engine's model year.
- c. Consistent with section 39666(d) of the Health and Safety Code, the District:
 - i. may establish more stringent diesel PM, NMHC+NO_x, HC, NO_x, and CO emission rate standards; and
 - ii. may establish more stringent maintenance and testing hour of operation standards on a site-specific basis; and
 - iii. shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with other District rules and initial start-up testing.

(B) ***In-Use Emergency Standby Diesel-Fueled CI Engine (> 50 bhp) Operating Requirements and Emission Standards***

- 1. No in-use stationary emergency standby diesel-fueled CI engine may be operated in response to the notification of an impending rotating outage if the following criteria are met:
 - a. the engine's permit to operate allows operation of the engine in anticipation of a rotating outage, or the District has established a policy or program that authorizes operation of the engine in anticipation of a rotating outage; and
 - b. the Utility Distribution Company has ordered rotating outages in the control area where the engine is located, or has indicated it expects to issue such an order at a certain time; and
 - c. the engine is located in a control area that is subject to the rotating outage; and
 - d. the engine is operated no more than 30 minutes prior to the time when the Utility Distribution Company officially forecasts a rotating outage in the control area; and

- e. the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
2. No in-use stationary emergency standby diesel-fueled CI engine (> 50 bhp) located on school grounds shall operate for non-emergency use, including for maintenance and testing purposes, when school activities are taking place.
3. Except as provided in subsection (c), all in-use stationary emergency standby diesel-fueled CI engines (> 50 hp) operated in California shall meet, in accordance with the applicable compliance schedules specified in subsections (f) and (g), the following requirements (which are summarized in Table 2):

| TABLE 2: SUMMARY OF THE EMISSION STANDARDS AND OPERATING REQUIREMENTS FOR IN-USE STATIONARY EMERGENCY STANDBY DIESEL-FUELED CI ENGINES > 50 BHP (SEE SUBSECTION (e)(2)(B)3.) | | | | |
|--|---|--|---|---|
| DIESEL PM | | | OTHER POLLUTANTS | |
| DIESEL PM STANDARDS (g/bhp-hr) | MAXIMUM ALLOWABLE ANNUAL HOURS OF OPERATION FOR ENGINES MEETING DIESEL PM STANDARDS | | | HC, NO _x , NMHC+NO _x , AND CO STANDARDS (g/bhp-hr) |
| | Emergency Use | Non-Emergency Use | | |
| | | Emission Testing to show compliance ¹ | Maintenance & Testing (hours/year) | |
| Not limited by ATCM ² | Not Limited by ATCM ² | Not Limited by ATCM ² | 20 | Both (i) and (ii) must be met: (i) No increase in HC or NO _x above 10% from baseline levels OR No increase in NMHC+NO _x emissions above baseline levels (ii) No increase in CO above 10% from baseline levels |
| ≤0.40 | Not Limited by ATCM ² | Not Limited by ATCM ² | 21 to 30 | |
| ≥ 0.40 and ≤ 0.15 | Not Limited by ATCM ² | Not Limited by ATCM ² | 31 to 50 (Upon approval by the District) | |
| ≥ 0.15 and ≤ 0.01 | Not Limited by ATCM ² | Not Limited by ATCM ² | 51 to 100 (Upon approval by the District) | |

1. Emission testing limited to testing to show compliance with subsections (e)(2)(B)3.
2. May be subject to emission or operational restrictions as defined in current applicable district rules, regulations, or policies.

a. Diesel PM Standard and Hours of Operation Limitations

I. General Requirements:

- i. No in-use stationary emergency standby diesel-fueled CI engine (>50 bhp) that emits diesel PM at a rate greater than 0.40 g/bhp-hr shall operate more than 20 hours per year for maintenance and testing purposes. This section does not limit engine operation for emergency use and for emission testing to show compliance with (e)(2)(B)3.
- ii. No in-use stationary emergency standby diesel-fueled CI engine (>50 bhp) that emits diesel PM at a rate less than or equal to 0.40 g/bhp-hr shall operate more than 30 hours per year for maintenance and testing purposes. This section does not limit engine operation for emergency use and for emission testing to show compliance with (e)(2)(B)3.

III. Consistent with section 39666(d) of the Health and Safety Code, the District may allow in-use stationary emergency standby diesel-fueled CI engines (> 50 bhp) to operate more than 30 hours per year for maintenance and testing purposes on a site-specific basis, provided the following limits are met:

- i. Up to 50 annual hours of operation are allowed for maintenance and testing purposes if the diesel PM emission rate is less than or equal to 0.15 g/bhp-hr.
- ii. Up to 100 annual hours of operation are allowed for maintenance and testing purposes if the diesel PM emission rate is less than or equal to 0.01 g/bhp-hr.

b. Additional Standards:

- I. Owners or operators that choose to meet the diesel PM standards defined in subsection (e)(2)(B)3.a. with emission control strategies that are not verified through the Verification Procedure shall:
 - i. not increase HC or NO_x emission rates by more than 10% above baseline, or
 - ii. not increase the sum of NMHC and NO_x emission rates above baseline, and

- iii. not increase CO emission rates by more than 10% above baseline.
- c. Consistent with section 39666(d) of the Health and Safety Code, the District:
 - I. may establish more stringent diesel PM, NMHC+NOx, HC, NOx, and CO emission rate standards; and
 - II. may establish more stringent limits on hours of maintenance and testing on a site-specific basis; and
 - III. shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with other District rules and initial start-up testing.

(C) *New Stationary Prime Diesel-Fueled CI Engine (> 50 bhp) Emission Standards*

1. As of January 1, 2005, except as provided in subsection (c), no person shall sell, purchase, or lease for use in California a new stationary prime diesel-fueled CI engine that has a rated brake horsepower greater than 50 unless it meets the following applicable emission standards, and no person shall operate any new stationary prime diesel-fueled CI engine that has a rated brake horsepower greater than 50 that unless its meets all of the following emission standards and operational requirements (which are summarized in Table 3):

| TABLE 3: SUMMARY OF THE EMISSION STANDARDS FOR NEW STATIONARY PRIME DIESEL-FUELED CI ENGINES > 50 BHP (SEE SUBSECTION (e)(2)(C)1.) | |
|--|--|
| DIESEL PM STANDARDS (g/bhp-hr) | HC, NOx, NMHC+NOX, AND CO STANDARDS (g/bhp-hr) |
| Meet the more stringent of: $\leq 0.01^1$ OR Off-Road CI Engine Certification Standard for an off-road engine of the same horsepower rating | Off-Road CI Engine Certification Standard for an off-road engine of the same model year and horsepower rating, or Tier 1 standard for an off-road engine of the same horsepower rating. ^{1,2} |

1. May be subject to additional emission limitations as specified in current district rules, regulations, or policies governing distributed generation.
2. The option to comply with the Tier 1 standards is available only if no off-road engine certification standards have been established for an off-road engine of the same model year and brake horsepower rating as the new stationary emergency standby diesel-fueled CI engine.

- a. Diesel PM Standard: All new stationary prime diesel-fueled CI engines (> 50 bhp) shall either emit diesel PM at a rate that is less than or equal to 0.01 grams diesel PM per brake-horsepower-hour (g/bhp-hr) or shall meet the current off-road PM certification standard for off-road engines of the same horsepower rating (title 13, CCR, section 2423), whichever is more stringent;
- b. HC, NO_x, NMHC+NO_x, and CO Standards: All new stationary prime diesel-fueled CI engines (> 50 bhp) shall meet the standards for off-road engines of the same model year and horsepower rating as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423). If no limits have been established for an off-road engine of the same model year and horsepower rating as the new stationary prime diesel-fueled CI engine, then the new stationary prime diesel-fueled CI engine shall meet the Tier 1 standards in title 13, CCR, section 2423, for an off-road engine of the same horsepower rating, irrespective of the new stationary prime diesel-fueled CI engine's model year;
- c. New stationary prime diesel-fueled CI engines that are used to provide electricity near the place of use (also known as "distributed generation") may be subject to additional emission limitations as specified in current district rules, policies, or regulations governing distributed generation;
- d. Consistent with section 39666(d) of the Health and Safety Code, the District may establish more stringent diesel PM, NMHC+NO_x, HC, NO_x, and CO emission rate limits on a site-specific basis.

(D) *In-Use Stationary Prime Diesel-Fueled CI Engine (> 50 bhp) Emission Standards*

- 1. Except as provided in subsection (c), all in-use stationary prime diesel-fueled CI engines (> 50 bhp) operated in California shall meet the following requirements (which are summarized in Table 4):

| TABLE 4: SUMMARY OF THE EMISSION STANDARDS FOR IN-USE STATIONARY PRIME DIESEL-FUELED CI ENGINES > 50 BHP (SEE SUBSECTION (e)(2)(D)1.) | | |
|---|--|---|
| DIESEL PM | | OTHER POLLUTANTS |
| DIESEL PM STANDARDS (g/bhp-hr) | | HC, NO _x , NMHC+NO _x , AND CO STANDARDS (g/bhp-hr) |
| Applicability | Standard | |
| All in-use prime engines (both off-road certified and not off-road certified) | 85% reduction from baseline levels (Option 1) OR 0.01 g/bhp/hr (Option 2) | Both (i) and (ii) must be met: (i) No increase in HC or NO _x emissions above 10% from baseline levels OR No increase in NMHC+NO _x emissions above baseline levels (ii) No increase in CO above 10% from baseline levels |
| Only in-use prime engines NOT certified in accordance with the Off-Road Compression Ignition Standards | 30% reduction from baseline levels AND 0.01 g/bhp-hr by no later than July 1, 2011 (Option 3) | |

- a. Diesel PM Standards: All in-use stationary prime diesel-fueled CI engines (> 50 bhp) certified in accordance with the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423) shall comply with either option 1 or option 2 below. All engines not certified in accordance with the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423) shall comply with option 1, option 2, or option 3 below:
- I. Option 1: Reduce the diesel PM emission rate by at least 85 percent, by weight, from the baseline level, in accordance with the appropriate compliance schedule specified in subsections (f) and (g),
 - II. Option 2: Emit diesel PM at a rate less than or equal to 0.01 g/bhp-hr in accordance with the appropriate compliance schedule as specified in subsections (f) and (g),
 - III. Option 3: Reduce the diesel PM emission rate by at least 30% from the baseline level, by no later than January 1, 2006, and emit diesel PM at a rate of 0.01 g/bhp-hr or less by no later than July 1, 2011.

b. Additional Standards:

- I. Owners or operators that choose to meet the diesel PM limits defined in subsection (e)(2)(D)1.a. with emission control strategies that are not verified through the Verification Procedure shall:
 - i. not increase HC or NOx emission rates by more than 10% above baseline, or
 - ii. not increase the sum of NMHC and NOx emission rates above baseline, and
 - iii. not increase CO emission rates by more than 10% above baseline.

- c. Consistent with section 39666(d) of the Health and Safety Code, the District may establish more stringent diesel PM, NMHC+NOx, HC, NOx, and CO emission rate standards.

(E) Emission Standards for New Stationary Diesel-Fueled CI Engines (> 50 bhp) Used in Agricultural Operations

1. As of January 1, 2005, except as provided in subsection (c) and subsection (e)(2)(E)2., no person shall sell, purchase, or lease for use in California any stationary diesel-fueled engine to be used in agricultural operations that has a rated brake horsepower greater than 50, or operate any new stationary diesel-fueled engine to be used in agricultural operations that has a rated brake horsepower greater than 50, unless the engine meets all of the following emission performance standards (which are summarized in Table 5.):

| TABLE 5: SUMMARY OF THE EMISSION STANDARDS FOR NEW STATIONARY DIESEL-FUELED CI ENGINES > 50 BHP USED IN AGRICULTURAL OPERATIONS (SEE SUBSECTION (e)(2)(E)) | |
|--|--|
| DIESEL PM | OTHER POLLUTANTS |
| DIESEL PM STANDARDS (g/bhp-hr) | HC, NOx, NMHC+NOx, AND CO STANDARDS (g/bhp-hr) |
| $\leq 0.15^1$ OR Off-Road CI Engine Certification Standard for an off-road engine of the same horsepower rating, whichever is more stringent. | Off-Road CI Engine Certification Standard for an off-road engine of the same model year and horsepower rating, or Tier 1 standard for an off-road engine of the same horsepower rating. ¹ |

1. Prior to January 1, 2008, these limits shall not apply to engines funded under State or federal incentive funding programs.

- a. Diesel PM Standard: New agricultural stationary diesel-fueled CI engines shall emit no more than 0.15 g/bhp-hr diesel particulate matter (PM) limit or shall meet the current standards for off-road engines of the same horsepower rating as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423), whichever is lower; and
 - b. NMHC, NO_x, and CO Standards: New agricultural stationary diesel-fueled CI engines shall meet the HC, NO_x, (or NMHC+NO_x, if applicable) and CO standards for off-road engines of the same model year and horsepower rating, as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423). If no limits have been established for an off-road engine of the same model year and horsepower rating as the new agricultural stationary diesel-fueled CI engine, then the new agricultural stationary diesel-fueled CI engine shall meet the Tier 1 standards in title 13, CCR, section 2423, for an off-road engine of the same horsepower rating, irrespective of the new agricultural diesel-fueled CI engine's model year.
2. Prior to January 1, 2008, the requirements of subsections (e)(2)(E)1. shall not apply to any stationary diesel-fueled CI engine that:
 - a. is used in agricultural operations, and
 - b. was funded under a State or federal incentive funding program, and
 - c. was sold for use in another agricultural operation, provided the stationary diesel-fueled CI engine complies with Tier II Off-Road Compression Ignition Standards for off-road engines of the same horsepower rating (title 13, CCR, section 2423).

For purposes of this subsection, State or federal incentive funding programs include, but are not limited to, California's Carl Moyer Program, as set forth in Title 17, Part 5, Chapter 9 of the California Health and Safety Code, and the U.S. Department of Agriculture's Environmental Quality Incentives (EQIP) Program, as set forth in Title 7, Chapter XIV, Part 1466 of the Code of Federal Regulations.

(3) Emission Standards for New Stationary Diesel-Fueled CI Engines, Less Than or Equal to 50 Brake Horsepower (< 50 bhp).

As of January 1, 2005, except as provided in subsection (c), no person shall sell, offer for sale, or lease for use in California any stationary diesel-fueled CI engine that has a rated brake horsepower less than or equal to 50, unless the engine meets the current Off-Road Compression-Ignition Engine Standards

(title 13, CCR, section 2423) for PM, NMHC+NOx, and CO for off-road engines of the same horsepower rating (These requirements are summarized in Table 6.)

| |
|---|
| TABLE 6 : SUMMARY OF THE EMISSION STANDARDS FOR STATIONARY DIESEL-FUELED CI ENGINES \leq 50 BHP (SEE SUBSECTION (e)(3)) |
| DIESEL PM STANDARDS, NMHC+NOX, AND CO STANDARDS (g/bhp-hr) |
| Current Off-Road CI Engine Certification Standard for an off-road engine of the same model year and horsepower rating. |

(4) Recordkeeping , Reporting, and Monitoring Requirements

(A) Reporting Requirements for Owners or Operators of New and In-Use Stationary CI Engines, Including Non-Diesel-Fueled CI Engines, Having a Rated Horsepower Greater than 50 (> 50 bhp)

1. Except as provided in subsection (c) and subsection (e)(4)(A)5. below, prior to the installation of any new stationary CI engine (> 50 bhp) at a facility, each owner or operator shall provide the information identified in subsection (e)(4)(A)3. to the District APCO.
2. Except as provided in subsection (c) and subsection (e)(4)(A)5. below, and no later than July 1, 2005, each owner or operator of an in-use stationary CI engine (> 50 bhp) shall provide the information specified in subsection (e)(4)(A)3. to the District APCO.
3. Each owner or operator shall submit to the District APCO the following information for each new and in-use stationary CI engine (>50 bhp) in accordance with the requirements of subsections (e)(4)(A)1. and (e)(4)(A)2. above:
 - a. Owner/Operator Contact Information
 - I. Company name
 - II. Contact name, phone number, address, e-mail address
 - III. Address of engine(s)

- b. Engine Information
 - I. Make
 - II. Model
 - III. Engine Family
 - IV. Serial number
 - V. Year of manufacture (if unable to determine, approximate age)
 - VI. Rated Brake Horsepower Rating
 - VII. Exhaust stack height from ground
 - VIII. Engine Emission Factors and supporting data for PM, NO_x and NMHC separately or NMHC+NO_x, and CO, (if available) from manufacturers data, source tests, or other sources (specify)
 - IX. Control equipment (if applicable)
 - i. Turbocharger
 - ii. Aftercooler
 - iii. Injection Timing Retard
 - iv. Catalyst
 - v. Diesel Particulate Filter
 - vi. Other
 - c. Fuel(s) Used
 - I. CARB Diesel
 - II. Jet fuel
 - III. Diesel
 - IV. Alternative diesel fuel (specify)
 - V. Alternative fuel (specify)
 - VI. Combination (Dual fuel) (specify)
 - VII. Other (specify)
 - d. Operation Information
 - I. Describe general use of engine
 - II. Typical load (percent of maximum bhp rating)
 - III. Typical annual hours of operation
 - IV. If seasonal, months of year operated and typical hours per month operated
 - V. Fuel usage rate (if available)
 - e. Distance to nearest offsite receptor location
 - f. State whether the engine is included in an existing AB2588 emission inventory
4. Except as provided in subsection (c), and no later than 180 days prior to the earliest applicable compliance date specified in subsections (f)

or (g), each owner or operator of an in-use stationary diesel-fueled CI engine (> 50 bhp) shall provide the following additional information to the District APCO:

a. an identification of the control strategy for each stationary diesel-fueled CI engine that when implemented will result in compliance with subsections (e)(2). If applicable, the information should include the Executive Order number issued by the Executive Officer for a Diesel Emission Control Strategy that has been approved by the Executive Officer through the Verification Procedure.

5. The District APCO may exempt the owner or operator from providing all or part of the information identified in subsection (e)(4)(A)3. or (e)(4)(A)4. if there is a current record of the information in the owner or operator's permit to operate.

6. Upon the written request by the Executive Officer, the District APCO shall provide to the Executive Officer a written report of all information identified in subsections (e)(4)(A)3. and (e)(4)(A)4.

(B) Reporting Requirements for Sellers of New Emergency Standby or Stationary Prime Diesel-Fueled CI Engines (> 50 bhp) Sold To Agricultural Operations

1. Except as provided by subsection (c), by January 1, 2006 and January 1st of each year thereafter, any person who sells a stationary diesel-fueled CI engine having a rated brake horsepower greater than 50 for use in an agricultural operation shall provide the following information to the Executive Officer of the Air Resources Board:

a. Contact Information

- I. Seller's Company Name (if applicable);
- II. Contact name, phone number, e-mail address.

b. Engine Sales Information (for each engine sold for use in California in the previous 12 month calendar period).

- I. Make,
- II. Mode,
- III. Model year (if known),
- IV. Rated brake horsepower,
- V. Number of engines sold,
- VI. Certification executive order number (if applicable),
- VII. Engine family number (if known),
- VIII. Emission control strategy (if applicable).

(C) Reporting Requirements for Sellers of Stationary Diesel-Fueled CI Engines Having a Rated Brake Horsepower Less Than or Equal to 50 (≤ 50 bhp)

1. Except as provided in subsection (c), by January 1, 2006 and January 1st of each year thereafter, all sellers of stationary diesel-fueled CI engines for use in California that have a rated brake horsepower less than or equal to 50 shall provide the following information to the Executive Officer of the Air Resources Board:
 - a. Contact Information
 - I. Sellers Company Name (if applicable);
 - II. Contact name, phone number, e-mail address.
 - b. Engine Sales Information (for each engine sold for use in California in the previous 12 month calendar period)
 - I. Make,
 - II. Model,
 - III. Model year (if known),
 - IV. Rated brake horsepower,
 - V. Number of engines sold,
 - VI. Certification executive order number (if applicable),
 - VII. Engine family number (if known),
 - VIII. Emission control strategy (if applicable).

(D) Demonstration of Compliance with Emission Limits

1. Prior to the installation of a new stationary diesel-fueled CI engine at a facility, the owner or operator of the new stationary diesel-fueled CI engine(s) subject to the requirements of section (e)(2)(A)3. or (e)(2)(C)1. shall provide emission data to the District APCO in accordance with the requirements of subsection (h) for purposes of demonstrating compliance.
2. By no later than the earliest applicable compliance date specified in subsections (f) or (g), the owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of subsection (e)(2)(B)3. or (e)(2)(D)1. shall provide emissions and/or operational data to the District APCO in accordance with the requirements of subsection (h) for purposes of demonstrating compliance.

(E) Notification of Non-Compliance

Owners or operators who have determined that they are operating their stationary diesel-fueled engine(s) in violation of the requirements specified

in subsections (e)(2) shall notify the district APCO immediately upon detection of the violation and shall be subject to district enforcement action.

(F) Notification of Loss of Exemption

1. Owners or operators of in-use stationary diesel-fueled CI engines, who are subject to an exemption specified in section (c) from all or part of the requirements of subsection (e)(2), shall notify the district APCO immediately after they become aware that the exemption no longer applies. No later than 180 days after notifying the APCO, the owner or operator shall demonstrate compliance with the requirements of subsection (e)(2). An owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of subsection (e)(2) shall provide emission data to the District APCO in accordance with the requirements of subsection (h) for purposes of demonstrating compliance.
2. The District APCO shall notify owners or operators of in-use stationary diesel-fueled CI engines, who are subject to the exemption specified in subsection (c)(9) from the requirements of subsections (e)(1) and (e)(2), when the exemption no longer applies. No later than 180 days after notification by the District APCO, the owner or operator shall demonstrate compliance with the requirements of subsections (e)(1) and (e)(2). An owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of subsection (e)(2) shall provide emissions data to the District APCO in accordance with the requirements of subsection (h) for purposes of demonstrating compliance.

(G) Monitoring Equipment

1. A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed on all engines subject to all or part of the requirements of subsection (e)(2).
2. All DPFs installed pursuant to the requirements in subsection (e)(2) must be installed with a backpressure monitor to notify the owner or operator when the high backpressure limit of the engine is approached.
3. Consistent with section 39666(d) of the Health and Safety Code, the District APCO may require the owner or operator to install and maintain additional monitoring equipment for the particular emission control strategy(ies) used to meet the requirements of subsection (e)(2).

(H) Reporting Provisions for Exempted Prime Engines

An owner or operator of an engine subject to subsections (c)(6), (c)(11), or (c)(12) shall keep records of the number of hours the engines are operated on a monthly basis. Such records shall be retained for a minimum of 36 months from the date of entry. Record entries made within 24 months of the most recent entry shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request. Record entries made from 25 to 36 months from the most recent entry shall be made available to District staff within 5 working days from the district's request.

(I) Reporting Requirements for Emergency Standby Engines

1. Starting January 1, 2005, each owner or operator of an emergency standby diesel-fueled CI engine shall keep a monthly log of usage that shall indicate the following:
 - a. emergency use hours of operation;
 - b. maintenance and testing hours of operation;
 - c. hours of operation for emission testing to show compliance with subsections (e)(2)(A)3. and (e)(2)(B)3.;
 - d. initial start-up hours; and
 - e. hours of operation for all uses other than those specified in subsections (e)(4)(I)1.a through (e)(4)(I)1.d. above.
2. Log entries shall be retained for a minimum of 36 months from the date of entry. Log entries made within 24 months of the most recent entry shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request. Log entries made from 25 to 36 months from most recent entry shall be made available to District staff within 5 working days from request.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39665, 39666, 41511, and 43013, Health and Safety Code. Reference: Sections 39002, 39650, 39658, 39659, 39665, 39666, 40000, 41511, and 43013.

(f) Compliance Schedule for Owners or Operators of Three or Less Engines

- (1) Each in-use stationary diesel-fueled CI engine (> 50 bhp), which will meet the requirements of subsections (e)(2)(B) solely by maintaining or reducing the current annual hours of operation for maintenance and testing, shall be in compliance by no later than January 1, 2006.

- (2) Each in-use stationary diesel-fueled CI engine (> 50 bhp), which is not subject to subsection (f)(1) but is required to meet the requirements of subsections (e)(2)(B) or (e)(2)(D), shall meet these requirements in accordance with the following schedule:
- (A) All pre-1989 through 1989 model year engines, inclusive, shall be in compliance by no later than January 1, 2006;
 - (B) All 1990 through 1995 model year engines, inclusive, shall be in compliance by no later than January 1, 2007;
 - (C) All 1996 through 2007 model year engines, inclusive, shall be in compliance by no later than January 1, 2008; and
 - (D) All post-2007 model year engines shall comply with the requirements of this section applicable to their model years.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39665, 39666, 41511, and 43013, Health and Safety Code. Reference: Sections 39002, 39650, 39658, 39659, 39665, 39666, 40000, 41511, and 43013.

(g) Compliance Schedule for Owners or Operators of Four or More Engines

- (1) Each in-use stationary diesel-fueled CI engine (> 50 bhp), which will meet the requirements of subsections (e)(2)(B) solely by maintaining or reducing the current annual hours of operation for maintenance and testing, shall be in compliance by no later than January 1, 2006.
- (2) Engines under common ownership or operation, that are subject to the requirements of subsections (e)(2)(B) or (e)(2)(D) and that are not required to meet the compliance date specified in (g)(1), shall comply with (e)(2)(B) or (e)(2)(D), whichever applies, according to the following schedule:

| <u>Pre-1989 Through 1989 Model Year Engines, Inclusive</u> | |
|--|------------------------|
| <u>Percent of Engines</u> | <u>Compliance date</u> |
| 25% | January 1, 2006 |
| 50% | January 1, 2007 |
| 75% | January 1, 2008 |
| 100% | January 1, 2009 |

| <u>1990 through 1995 Model Year Engines, Inclusive</u> | |
|--|------------------------|
| <u>Percent of Engines</u> | <u>Compliance date</u> |
| 30% | January 1, 2007 |
| 60% | January 1, 2008 |
| 100% | January 1, 2009 |

1996 and Later Model Year Engines

| <u>Percent of Engines</u> | <u>Compliance date</u> |
|---------------------------|------------------------|
| 50% | January 1, 2008 |
| 100% | January 1, 2009 |

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39665, 39666, 41511, and 43013, Health and Safety Code. Reference: Sections 39002, 39650, 39658, 39659, 39665, 39666, 40000, 41511, and 43013.

(h) Emissions Data

- (1) Upon approval by the District APCO, the following sources of data may be used in whole or part to meet the emission data requirements of subsections (e)(2)(A) through (e)(2)(D):
 - (A) off-road engine certification test data for the stationary diesel-fueled CI engine,
 - (B) engine manufacturer test data,
 - (C) emissions test data from a similar engine, or
 - (D) emissions test data used in meeting the requirements of the Verification Procedure for the emission control strategy implemented.
- (2) Emissions testing of a stationary diesel-fueled CI engine, for purposes of showing compliance with the requirements of subsections (e)(2)(A) through (e)(2)(D), shall be done in accordance with the methods specified in subsection (i).
- (3) For purposes of emissions testing, the particulate matter (PM) emissions from a dual-fueled stationary CI engine, which uses as its fuel a mixture of diesel fuel and other fuel(s), shall be deemed to be 100% diesel PM.
- (4) Emissions testing for the purposes of determining the percent change from baseline shall include baseline and emission control strategy testing subject to the following conditions:
 - (A) Baseline testing may be conducted with the emission control strategy in place, provided the test sample is taken upstream of the emission control strategy and the presence of the emission control strategy is shown to the District APCO's satisfaction as having no influence on the emission test results;
 - (B) Control strategy testing shall be performed on the stationary diesel-fueled CI engine with full implementation of the emission control strategy;
 - (C) The percent change from baseline shall be calculated as the baseline emissions minus control strategy emissions, with the difference being

divided by the baseline emissions and the result expressed as a percentage; and

- (D) The same test method shall be used for determining both baseline emissions and control strategy emissions.
- (5) Emission testing for the purposes of demonstrating compliance with an emission level shall be performed on the stationary diesel-fueled CI engine with the emission control strategy fully implemented.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39665, 39666, 41511, and 43013, Health and Safety Code. Reference: Sections 39002, 39650, 39658, 39659, 39665, 39666, 40000, 41511, and 43013.

(i) Test Methods

- (1) The following test methods shall be used to determine diesel PM, HC, NOx, CO and NMHC emission rates:
 - (A) Diesel PM emission testing shall be done in accordance with one of the following methods:
 1. California Air Resources Board Method 5 (ARB Method 5), *Determination of Particulate Matter Emissions from Stationary Sources*, as amended July 28, 1997, which is incorporated herein by reference.
 - a. For purposes of this subsection, diesel PM shall be measured only by the probe catch and filter catch and shall not include PM captured in the impinger catch or solvent extract.
 - b. The tests are to be carried out under steady state operation. Test cycles and loads shall be in accordance with ISO-8178 Part 4 or alternative test cycle approved by the District APCO.
 - c. The District APCO may require additional engine or operational duty cycle data if an alternative test cycle is requested; or
 2. International Organization for Standardization (ISO) 8178 Test procedures: ISO 8178-1:1996(E) ("ISO 8178 Part 1"); ISO 8178-2: 1996(E) ("ISO 8178 Part 2"); and ISO 8178-4: 1996(E) ("ISO 8178 Part 4"), which are incorporated herein by reference; or
 3. Title 13, California Code of Regulations, section 2423, *Exhaust Emission Standards and Test Procedures –Off-Road Compression Ignition Engines*, which is incorporated herein by reference.

(B) NO_x, CO and HC emission testing shall be done in accordance with one of the following methods:

1. California Air Resources Board Method 100 (ARB Method 100), *Procedures for Continuous Gaseous Emission Stack Sampling*, as amended July 28, 1997, which is incorporated herein by reference.
 - a. Tests using ARB Method 100 shall be carried out under steady state operation. Test cycles and loads shall be in accordance with ISO-8178 Part 4 or alternative test cycle approved by the District APCO.
 - b. The District APCO may require additional engine or operational duty cycle data if an alternative test cycle is requested; or
2. International Organization for Standardization (ISO) 8178 Test procedures: ISO 8178-1:1996(E) ("ISO 8178 Part 1"); ISO 8178-2: 1996(E) ("ISO 8178 Part 2"); and ISO 8178-4: 1996(E) ("ISO 8178 Part 4"), which are incorporated herein by reference; or
3. Title 13, California Code of Regulations, section 2423, *Exhaust Emission Standards and Test Procedures – Off-Road Compression Ignition Engines*, which is incorporated herein by reference.

(C) NMHC emission testing shall be done in accordance with one of the following methods:

1. International Organization for Standardization (ISO) 8178 Test procedures: ISO 8178-1:1996(E) ("ISO 8178 Part 1"); ISO 8178-2: 1996(E) ("ISO 8178 Part 2"); and ISO 8178-4: 1996(E) ("ISO 8178 Part 4"), which are incorporated herein by reference; or
2. Title 13, California Code of Regulations, section 2423, *Exhaust Emission Standards and Test Procedures –Off-Road Compression Ignition Engines*, which is incorporated herein by reference.

- (2) Consistent with section 39666(d) of the Health and Safety Code, the District APCO may approve the use of alternatives to the test methods listed in subsection (i)(1), provided the alternatives are demonstrated to the APCO's satisfaction as accurate in determining the emission rate of diesel PM, HC, NO_x, NMHC, or CO.

NOTE: Authority cited: Sections 39600, 39601, 39650, 39658, 39659, 39665, 39666, 41511, and 43013, Health and Safety Code. Reference: Sections 39002, 39650, 39658, 39659, 39665, 39666, 40000, 41511, and 43013.