

RULE 1470. REQUIREMENTS FOR STATIONARY DIESEL-FUELED INTERNAL COMBUSTION AND OTHER COMPRESSION IGNITION ENGINES

(a) Applicability

- (1) This rule shall apply to any person who either sells a stationary compression ignition (CI) engine, offers a stationary CI engine for sale, leases a stationary CI engine, or purchases a stationary CI engine for use in the South Coast Air Quality Management District, except as provided in subdivision (h).
- (2) This rule shall apply to any person who owns or operates a stationary CI engine in the South Coast Air Quality Management District with a rated brake horsepower greater than 50 (>50 bhp), except as provided in subdivision (h).

(b) Definitions

For the purpose of this rule, the following definitions shall 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) **ALTERNATIVE FUEL** means natural gas, propane, ethanol, or methanol.
- (3) **ALTERNATIVE DIESEL FUEL** means any fuel used in a CI 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 Standard Specification for Diesel Fuel Oils D975-11, "Standard Specification for Diesel Fuel Oils," as modified in March 2011, which is incorporated herein by reference, 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 and biodiesel blends that do not meet 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.
- (4) 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.
 - (5) 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.
 - (6) 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 and 2282.
 - (7) CANCER RISK means the characterization of the probability of developing cancer from exposure to environmental chemical hazards, in accordance with the methodologies specified in “The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments”, Office of Environmental Health Hazard Assessment, August 2003, which is incorporated herein by reference.
 - (8) CERTIFIED CI ENGINE means a CI engine that is certified to meet the Tier 1, Tier 2, Tier 3, or Tier 4 Off-Road CI Certification Standards as specified in Title 13, California Code of Regulations, section 2423, or a CI engine that is certified to comply with the new nonroad CI engine emissions standards as specified in 40 CFR, Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (2006).
 - (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) DATE OF ACQUISITION OR SUBMITTAL means
 - (A) For each District-approved permit or District registration:
 - (i) The date the application for the District permit or the application for engine registration was received by the District; or
 - (ii) Upon District approval, the date of purchase.
 - (B) For an engine subject to neither a District permit program nor a District registration program for stationary sources, the date of purchase.
- (13) DATE OF PURCHASE means the date shown on the front of the cashed check, the date of the financial transaction, or the date on the engine purchasing agreement, whichever is earliest.
- (14) DEMAND RESPONSE PROGRAM (DRP) means a program for reducing electrical demand using an interruptible service contract (ISC).
- (15) 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 – 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.
- (16) DIESEL-FUELED means fueled by diesel fuel, CARB diesel fuel, or jet fuel, in whole or part.
- (17) 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.
- (18) 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 subdivision (g).
- (19) DIGESTER GAS is any gas derived from anaerobic decomposition of organic matter.
- (20) DIRECT-DRIVE EMERGENCY STANDBY FIRE PUMP ENGINES means engines directly coupled to pumps exclusively used in water-based fire protection systems.
- (21) DIRECT-DRIVE EMERGENCY STANDBY FLOOD CONTROL PUMP ENGINES means engines directly coupled to pumps exclusively used for the

- pumping of water or sewage to prevent or mitigate a flood or sewage overflow, or the pumping of water to maintain pressure in the water distribution system.
- (22) **DRP ENGINE** means an engine that is enrolled in a DRP.
 - (23) **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.
 - (24) **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.
 - (25) **EMERGENCY STANDBY ENGINE** means a stationary engine that meets the criteria specified in subparagraphs (b)(25)(A), (b)(25)(B), and (b)(25)(C) and any combination of subparagraphs (b)(25)(D), (b)(25)(E), or (b)(25)(F) below:
 - (A) is installed for the primary purpose of providing electrical power or mechanical work during an emergency use and is not the source of primary power at the facility; and
 - (B) is operated to provide electrical power or mechanical work during an emergency use; and
 - (C) is not operated to supply power to an electric grid or does not supply power as part of a financial arrangement with any entity, except as allowed in paragraphs (c)(2), (c)(3), (c)(7), and (c)(8); and
 - (D) is operated under limited circumstances for maintenance and testing, emissions testing, or initial start-up testing, as specified in paragraphs (c)(2), (c)(3), (c)(7), and (c)(8); or
 - (E) is operated under limited circumstances in response to an impending outage, as specified in paragraphs (c)(2), (c)(3), (c)(7), and (c)(8); or
 - (F) is operated under limited circumstances under a DRP as specified in paragraphs (c)(7) and (c)(8).
 - (26) **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:
 - (i) 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

- (ii) which is demonstrated by the owner or operator to the Executive Officer'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:
 - (i) 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
 - (ii) which is demonstrated by the owner or operator to the Executive Officer'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;
 - (F) the pumping of water to maintain pressure in the water distribution system for the following reasons:
 - (i) a pipe break that substantially reduces water pressure; or
 - (ii) high demand on the water supply system due to high use of water for fire suppression; or
 - (iii) the breakdown of electric-powered pumping equipment at sewage treatment facilities or water delivery facilities.
- (27) 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.
- (28) END USER means any person who purchases or leases a stationary diesel-fueled engine for operation in the South Coast Air Quality Management District. Persons purchasing engines for the sole purpose of resale are not considered "end users."
- (29) ENROLLED means the ISC is in effect during the specified time period for an engine in an ISC.
- (30) EXECUTIVE OFFICER means the executive officer of the South Coast Air Quality Management District, or his or her designated representative.
- (31) FACILITY means any source or group of sources or other air contaminant-emitting activities which are located on one or more contiguous properties within the

District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control), or an outer continental shelf (OCS) source as determined in 40 CFR Section 55.2. Such above-described groups, if noncontiguous, but connected only by land carrying a pipeline, shall not be considered one facility. Sources or installations involved in crude oil and gas production in Southern California Coastal or OCS Waters and transport of such crude oil and gas in Southern California Coastal or OCS Waters shall be included in the same facility which is under the same ownership or use entitlement as the crude oil and gas production facility on-shore.

- (32) 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.
- (33) GENERATOR SET means a CI engine coupled to a generator that is used as a source of electricity.
- (34) HAZARD INDEX means the sum of individual acute or chronic hazard quotients for each substance affecting a particular toxicological endpoint, as determined in accordance with the requirements of “The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments”, Office of Environmental Health Hazard Assessment, August 2003, which is incorporated herein by reference.
- (35) HAZARDOUS AIR POLLUTANT (HAP) means any pollutant on a list maintained by EPA pursuant to Section 112(b) of the federal Clean Air Act.
- (36) HEALTH FACILITY has the same meaning as defined in Section 1250 of the California Health and Safety Code.
- (37) IN-USE means a CI engine that is not a “new” CI engine.
- (38) INITIAL START-UP TESTING means operating the engine or supported equipment to ensure their proper performance either:
 - (A) for the first time after installation of a 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.

- (39) INTERRUPTIBLE SERVICE CONTRACT (ISC) means a contractual arrangement in which a utility distribution company provides lower energy costs to a nonresidential electrical customer in exchange for the ability to reduce or interrupt the customer's electrical service during a Stage 2 or Stage 3 alert, or during a transmission emergency.
- (40) 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.
- (41) LANDFILL GAS means any gas derived through any biological process from the decomposition of waste buried within a waste disposal site.
- (42) LOCATION means any single site at a building, structure, facility, or installation. For the purpose of this definition, a site is a space occupied or to be occupied by an engine.
- (43) MAINTENANCE AND TESTING means operating an emergency standby CI engine to:
- (A) 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, uninterruptible power supply, and breakers; or
 - (B) Facilitate the training of personnel on emergency activities; or
 - (C) Provide electric power for the facility when the utility distribution company takes its power distribution equipment offline to service that equipment for any reason that does not qualify as an emergency use; or
 - (D) Provide additional hours of operation to perform testing on an engine that has experienced a breakdown or failure during maintenance. Upon approval of the Executive Officer, these additional hours of operation will not be counted in the maximum allowable annual hours of operation for the emergency standby CI engine.

- (44) MAJOR SOURCE means a plant that emits or has the potential to emit any single hazardous air pollutant (HAP) at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site. Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.
- (45) MAXIMUM RATED POWER means the maximum brake kilowatt output of an engine as determined from any of the following, whichever is the greatest:
- (A) The manufacturer's sales and service literature;
 - (B) the nameplate of the unit; or
 - (C) if applicable, as shown in the application for certification of the engine.
- (46) 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.
- (47) NEW or NEW CI ENGINE means the following:
- (A) a stationary CI engine installed or to be installed at a facility on or after January 1, 2005, including an engine relocated from an off-site location on or after January 1, 2005, except the following shall be deemed in-use engines:
 - (i) 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;
 - (ii) an engine for which a District-approved application for a district permit or engine registration for stationary sources was filed with the District prior to January 1, 2005;
 - (iii) 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;
 - (iv) an engine installed at a facility prior to January 1, 2005 and relocated within the same facility after January 1, 2005;
 - (v) a model year 2004 or 2005 engine with a date of purchase prior to January 1, 2005, for use in the South Coast Air Quality Management District.

- (B) a stationary CI engine that has been reconstructed after January 1, 2005 shall be deemed a new engine unless 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 rule.
- (48) NON-METHANE HYDROCARBONS (NMHC) means the sum of all hydrocarbon air pollutants except methane.
- (49) OWNER OR OPERATOR means any person subject to the requirements of this rule, 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.
- (50) 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 paragraph (b)(63). Indicators of portability include, but are not limited to, wheels, skids, carrying handles, dollies, trailers, or platforms. 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.
- (51) PRIME CI ENGINE means a stationary CI engine that is not an emergency standby CI engine.
- (52) PRIORITIZATION SCORE means the numeric value used to rank facilities in order of their potential to pose significant risk to human receptors. Prioritization scores are calculated per the process described in the "CAPCOA Air Toxics Hot Spots Program Facility Prioritization Guidelines," California Air Pollution Control Officer's Association (CAPCOA), July 1990, which is incorporated herein by reference.

- (53) RATED BRAKE HORSEPOWER (BHP) means:
- (A) For in-use engines, the maximum brake horsepower output of an engine as determined from any of the following, whichever reflects the engine's configuration as of January 1, 2005:
- (i) The manufacturer's sales and service literature; or
 - (ii) The nameplate of the engine; or
 - (iii) If applicable, as shown in the application for certification of the engine.
- (B) For new engines, the maximum brake horsepower output of an engine as determined from any of the following, whichever reflects the engine's configuration upon the engine's initial installation at the facility:
- (i) The manufacturer's sales and service literature; or
 - (ii) The nameplate of the engine; or
 - (iii) If applicable, as shown in the application for certification of the engine.
- (54) 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.
- (55) 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.
- (56) ROTATING OUTAGE means a controlled, involuntary curtailment of electrical power service to consumers as ordered by the Utility Distribution Company.
- (57) SCHOOL OR SCHOOL GROUNDS means any public or private school, including juvenile detention facilities and schools serving as the students' place of residence (e.g., boarding schools), 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. School or School Grounds includes any building or structure, playground, athletic field, or other areas of school property, but does not include unimproved school property.
- (58) 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.

- (59) SELLER means any person who sells, leases, or offers for sale any stationary diesel-fueled engine directly to end users.
- (60) SENSITIVE RECEPTOR means any residence including private homes, condominiums, apartments, and living quarters, schools as defined under paragraph (b)(57), preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.
- (61) STAGE 2 ALERT means an official forecast or declaration by the California Independent System Operator that the operating reserves of electrical power will fall or have fallen below 5 percent.
- (62) STAGE 3 ALERT means an official forecast or declaration by the California Independent System Operator that the operating reserves of electrical power will fall or have fallen below 1.5 percent.
- (63) 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, resides 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.

- (64) **STATIONARY SOURCE** means any building, structure, facility, or installation that emits any affected pollutant directly or as fugitive emissions. Building, structure, facility, or installation includes all pollutant emitting activities which:
- (A) are under the same ownership or operation, or which are owned or operated by entities which are under common control; and
 - (B) belong to the same industrial grouping either by virtue of falling within the same two-digit standard industrial code or by virtue of being part of a common industrial process, manufacturing process, or connected process involving a common raw material; and
 - (C) are located on one or more contiguous or adjacent properties.
- (65) **TRANSMISSION CONSTRAINED AREA** means the specific location that is subject to localized operating reserve deficiencies due to the failure of the normal electrical power distribution system.
- (66) **TRANSMISSION EMERGENCY** means an official forecast or declaration by the California Independent System Operator that the available electrical power transmission capacity to a transmission constrained area is insufficient and may result in an uncontrolled local grid collapse in the transmission constrained area.
- (67) **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.
- (68) **VERIFICATION PROCEDURE, WARRANTY AND IN-USE COMPLIANCE REQUIREMENTS FOR IN-USE STRATEGIES TO CONTROL EMISSIONS FROM DIESEL ENGINES (VERIFICATION PROCEDURE)** means the CARB 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 NO_x from in-use diesel engines using a particular emission control strategy.
- (69) **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 CARB "Verification Procedure".

(c) 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 (>50 bhp)
 - (A) As of January 1, 2006, except as provided in subdivision (h), no owner or operator of a new stationary CI engine or an in-use prime stationary diesel-fueled CI engine shall fuel the engine with any fuel unless the fuel is one of the following:
 - (i) CARB Diesel Fuel; or
 - (ii) an alternative diesel fuel as defined in paragraph (b)(3); or
 - (iii) any alternative diesel fuel that is not identified in paragraph (b)(3) and meets the requirements of the Verification Procedure for fuels; or
 - (iv) an alternative fuel; or
 - (v) CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure for fuels; or
 - (vi) any combination of the fuels identified in clauses (c)(1)(A)(i) through (c)(1)(A)(v), above.
 - (B) As of January 1, 2006, except as provided in subdivision (h), no owner or operator of an in-use emergency standby stationary diesel-fueled CI engine shall add to the engine or any fuel tank directly attached to the engine any fuel unless the fuel is one of the following:
 - (i) CARB Diesel Fuel; or
 - (ii) an alternative diesel fuel as defined in paragraph (b)(3); or
 - (iii) any alternative diesel fuel that is not identified in paragraph (b)(3) and meets the requirements of the Verification Procedure for fuels; or
 - (iv) an alternative fuel; or
 - (v) CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure for fuels; or
 - (vi) any combination of the fuels identified in clauses (c)(1)(B)(i) through (c)(1)(B)(v), above.
- (2) Operating Requirements and Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines With a Rated Brake Horsepower of Greater than 50 (>50 bhp)

(A) Limit on Non-Emergency Operation

As of June 2, 2004 the owner or operator of a new emergency standby diesel-fueled CI engine located 500 feet or less from a school shall comply with the following applicable limits on non-emergency operation, which includes maintenance and testing:

- (i) An engine that is located on school grounds shall not be operated for non-emergency use whenever there is a school sponsored activity; and
- (ii) An engine that is located 100 meters (328 feet) or less from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 4:30 p.m. on days when school is in session, until control equipment is in place, when the hours would be between 7:30 a.m. and 3:30 p.m.; and
- (iii) An engine that is located more than 100 meters (328 feet) and less than or equal to 500 feet from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 3:30 p.m. on days when school is in session. An engine that emits diesel PM at a rate of 0.01 g/bhp-hr or less is not subject to this restriction.

(B) No owner or operator of a new stationary emergency standby diesel-fueled CI engine (>50 bhp) shall operate in response to the notification of an impending rotating outage, unless all the following criteria are met:

- (i) the engine's permit to operate allows operation of the engine in anticipation of a rotating outage; and
- (ii) 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
- (iii) the engine is located in a specific location that is subject to the rotating outage; and
- (iv) 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
- (v) the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.

- (C) Except as provided in subdivision (h), no person shall sell, offer for sale, purchase, lease for use, or operate in the South Coast Air Quality Management District any new stationary emergency standby diesel-fueled CI engine (>50 bhp), excluding new direct-drive emergency standby fire pump engines and new direct-drive emergency standby flood control pump engines, unless it meets all of the following applicable operating requirements and emission standards, except new direct-drive emergency standby fire pump engines and new direct-drive emergency standby flood control pump engines shall comply with clause (c)(2)(C)(v):
- (i) **Hours of Operating Requirements**

New stationary emergency standby diesel-fueled engines (>50 bhp) shall not operate more than 50 hours per year for maintenance and testing, as defined in paragraph (b)(43).
 - (ii) **New stationary emergency standby diesel-fueled engines (>50 bhp) installed prior to January 1, 2011, shall emit diesel PM at a rate less than or equal to 0.15 g/bhp-hr, and meet the NMHC, NO_x, NMHC + NO_x and CO standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (Title 13, CCR, Section 2423). New stationary emergency standby diesel-fueled engines (>50 bhp) located on school grounds or 100 meters or less from a school shall comply with the diesel PM standards as specified in clause (c)(2)(C)(v).**
 - (iii) **New stationary emergency standby diesel-fueled engines (>50 bhp) installed or with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2011 and prior to January 1, 2013, shall be a certified CI engine that emits diesel PM at a rate less than or equal to 0.15 g/bhp-hr. New stationary emergency standby diesel-fueled engines (>50 bhp) located on school grounds or 100 meters or less from a school shall comply with the diesel PM standards as specified in clause (c)(2)(C)(v).**
 - (iv) **Diesel PM Standard**
 - (I) **Any new stationary emergency standby diesel-fueled engines (>50 bhp) installed and with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2013 and located at a sensitive receptor or**

50 meters or less from a sensitive receptor, except those located on school grounds or 100 meters or less from a school which exists at the date the application for Permit to Construct or Permit to Operate is deemed complete, whichever is earlier, shall be a certified CI engine. The new stationary emergency standby diesel-fueled engine shall also meet the diesel PM standard for off-road engines of the same maximum rated power as specified in Table 1, in effect on the date of acquisition or submittal, as defined in subdivision (b).

Table 1 – PM Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines Located at a Sensitive Receptor or 50 Meters or Less From a Sensitive Receptor – gram per brake horsepower-hour (g/bhp-hr)

| Engine Size | Requirement | Emission Rate |
|----------------|-------------------------------|----------------------------|
| 50 < HP < 175 | On or after January 1, 2013 | 0.15 g/bhp-hr |
| 175 ≤ HP ≤ 750 | On or after January 1, 2013 | 0.01 g/bhp-hr ¹ |
| >750 HP | January 1, 2013-June 30, 2015 | 0.075 g/bhp-hr |
| | On or after July 1, 2015 | 0.02 g/bhp-hr ¹ |

¹ Diesel PM standard as specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (Title 13CCR Section 2423).

- (II) Two or more new emergency standby engines that are individually rated below 175 bhp and located within 50 meters of the same sensitive receptor shall each emit diesel PM at a rate no greater than 0.01 g/bhp-hr if:
 - (aa) the cumulative maximum rated horsepower of such engines is equal to or greater than 175 bhp; and
 - (bb) applications for such engines are deemed complete for either a Permit to Construct or Permit to Operate on or after January 1, 2013; and
 - (cc) applications for such engines are deemed complete within 18 months of each other.

- (v) Diesel PM Standard for Engines Located On or Near School Grounds
New stationary emergency standby diesel-fueled engines (>50 bhp) located on school grounds or 100 meters or less from a school which exists at the date the application for Permit to Construct or Permit to Operate is deemed complete, whichever is earlier, shall emit diesel PM at a rate less than or equal to 0.01 g/bhp-hr.
- (vi) Diesel PM Standards for New Stationary Emergency Standby Diesel-Fueled Engines Located Greater Than 50 Meters From Sensitive Receptors (except schools)
Any new stationary emergency standby diesel-fueled engine (>50 bhp) installed and with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2013, and located greater than 50 meters from a sensitive receptor, except those located on school grounds or 100 meters or less from a school which exists at the date the application for Permit to Construct or Permit to Operate is deemed complete, whichever is earlier, shall be a certified CI engine that emits diesel PM at a rate less than or equal to 0.15 g/bhp-hr.
- (vii) NMHC + NO_x, and CO Standards
Any new stationary emergency standby diesel-fueled CI engines (> 50 bhp) installed and with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2011, shall meet the standards for off-road engines of the same maximum rated power as specified in Table 2 below:

Table 2: NMHC+NOx and CO Emission Standards for New Stationary Emergency Standby Diesel-Fueled CI Engines – g/bhp-hr (g/kW-hr)

| Maximum Engine Power | NMHC+NOx g/bhp-hr (g/kW-hr) | CO g/bhp-hr (g/kW-hr) |
|------------------------------------|-----------------------------|-----------------------|
| 50 < HP < 100 (37 < kW < 75) | 3.5 (4.7) | 3.7 (5.0) |
| 100 ≤ HP < 175 (75 ≤ kW < 130) | 3.0 (4.0) | 3.7 (5.0) |
| 175 ≤ HP ≤ 750 (130 ≤ kW ≤ 560) | 3.0 (4.0) | 2.6 (3.5) |
| HP > 750 (kW > 560) | 4.8 (6.4) | 2.6 (3.5) |

HP- Horsepower

kW- Kilowatts

g/bhp-hr – grams per brake horsepower-hour

(viii) The District shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with District rules and initial start-up testing. Hours of operation used solely for testing and demonstration for compliance with District rules and for initial start-up testing shall not be included as part of the engine’s cumulative annual hours specified in clause (c)(2)(C)(i).

(D) Emission Standards and Hours of Operating Requirements for Certain New Engines Installed After Specified Dates

On or after January 1, 2011, except as provided in subdivision (h) or clause (c)(2)(C)(v), no person shall sell, offer for sale, purchase, lease for use, or operate in the South Coast Air Quality Management District any new stationary emergency standby diesel-fueled CI direct-drive fire pump engine, or new stationary emergency standby diesel-fueled CI direct-drive flood control pump engine (>50 bhp), unless it complies with all of the following applicable emission standards and operating requirements:

(i) Emissions Standards and Hours of Operating Requirements for New Stationary Emergency Standby Direct-Drive Fire Pump Engines

- (I) New stationary emergency standby direct-drive fire pump engines installed and with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2011, shall meet the applicable emission standards for all pollutants for an engine with the same NFPA nameplate power rating, as specified in Table 3 – Emission Standards for New Stationary Emergency Standby Direct-Drive Fire Pump Engines; and

Table 3: Emission Standards for New Stationary Emergency Standby Diesel Fueled Direct-Drive Fire Pump Engines -
g/bhp-hr (g/kW-hr)

| Maximum Engine Power | PM g/bhp-hr (g/kW-hr) | NMHC+NOx g/bhp-hr (g/kW-hr) | CO g/bhp-hr (g/kW-hr) |
|------------------------------------|-----------------------------|-----------------------------------|-----------------------------|
| 50 < HP < 100 (37 < kW < 75) | 0.30 (0.40) | 3.5 (4.7) | 3.7 (5.0) |
| 100 ≤ HP < 175 (75 ≤ kW < 130) | 0.22 (0.30) | 3.0 (4.0) | 3.7 (5.0) |
| 175 ≤ HP ≤ 750 (130 ≤ kW ≤ 560) | 0.15 (0.20) | 3.0 (4.0) | 2.6 (3.5) |
| HP > 750 (kW > 560) | 0.15 (0.20) | 4.8 (6.4) | 2.6 (3.5) |

HP- Horsepower

kW- Kilowatts

g/bhp-hr – grams per brake horsepower-hour

- (II) meet the applicable stationary emergency standby direct-drive fire pump engine certification requirements and emission standards required by 40 CFR § 60.4202(d); and
- (III) not operate more than the number of hours necessary to comply with the maintenance and testing requirements of the 2002 edition or the most current edition of the National Fire Protection Association (NFPA) 25 – “Standard for the Inspection, Testing, and Maintenance of Water-Based Fire

Protection Systems,” which is incorporated herein by reference.

(ii) Emissions Standards and Hours of Operating Requirements for New Stationary Emergency Standby Direct-Drive Flood Control Pump Engines

- (I) New stationary emergency standby direct-drive flood control pump engines installed and with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2011, shall be a certified CI engine that emits diesel PM at a rate less than or equal to 0.15 g/bhp-hr; and
- (II) shall meet the NMHC+NO_x and CO standards for off-road engines of the same maximum rated power as specified in Table 2 of clause (c)(2)(C)(vii); and
- (III) shall not operate more than 50 hours per year for maintenance and testing, as defined in paragraph (b)(43).

(E) Backpressure Relief Option for New Stationary Emergency Standby Engines

Owners or operators using a diesel particulate filter to comply with the diesel PM standards of this rule may install an engine exhaust backpressure relief device, provided all of the following conditions are met:

- (i) the new stationary emergency standby engine is located at an Essential Public Service as defined in Rule 1302 or health facility and shall be a certified CI engine that meets, without the use of a diesel particulate filter, a diesel PM rate less than or equal to 0.15 g/bhp-hr and the applicable NMHC+NO_x and CO standards specified in Table 2 of clause (c)(2)(C)(vii); and
- (ii) the engine exhaust backpressure relief device bypasses the diesel particulate filter only when the engine exhaust backpressure approaches the high backpressure limit, as specified by the engine and/or diesel particulate filter manufacturer; and
- (iii) the engine exhaust gases discharged through the backpressure relief device shall be vented away from enclosed spaces, building occupants, equipment operators, and sensitive receptors; and
- (iv) in addition to a backpressure monitor, as required in subparagraph (d)(5)(B), the engine owner shall install an electronic device that is capable of measuring and recording engine exhaust backpressure

associated with the diesel particulate filter and engine exhaust temperature data, including the date and time of measurement. The device shall continually record exhaust backpressure and temperature data during all actual engine operation. Records of exhaust temperature and backpressure measurements shall be retained for a period of 36 months and made available to the District upon request; and

- (v) the owner or operator shall repair the diesel particulate filter and reset the exhaust backpressure relief device no more than 5 working days after the backpressure relief device has been activated or no more than 5 working days after the conclusion of the emergency in which the device was activated. If new or replacement parts are necessary for the repair of the diesel particulate filter and/or exhaust backpressure relief device, as detailed in the breakdown notification, the owner or operator shall be allowed an additional 10 working days after the conclusion of the emergency to complete any necessary repairs to the diesel particulate filter and/or exhaust backpressure relief device; and
- (vi) the owner or operator shall submit a written breakdown notification to the Executive Officer within 24 hours of activation of the engine exhaust backpressure relief device.

(F) Diesel Particulate Filter Cleaning Option for New Emergency Standby Engines

Owners or operators using a diesel particulate filter to comply with the diesel PM standards of this rule may remove the control equipment filter media for cleaning, provided all of the following conditions are met:

- (i) the new emergency standby engine shall not be operated for maintenance and testing or any other non-emergency use while the diesel particulate filter media is removed;
- (ii) the control equipment filter media shall be returned and re-installed within 10 working days from the date of removal;
- (iii) the owner or operator shall maintain records indicating the date(s) the control equipment filter media was removed for cleaning and the date(s) the filter media was re-installed. Records shall be retained pursuant to the requirements specified in subparagraph (d)(7)(C).

- (3) Operating Requirements and Emission Standards for In-Use Emergency Standby Diesel-Fueled CI Engines that Have a Rated Brake Horsepower of Greater than 50 (> 50 bhp).
- (A) No owner or operator shall operate any in-use stationary emergency standby diesel-fueled CI engine in response to the notification of an impending rotating outage unless all the following criteria are met:
- (i) the engine's permit to operate allows operation of the engine in anticipation of a rotating outage; and
 - (ii) 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
 - (iii) the engine is located in a specific location that is subject to the rotating outage; and
 - (iv) 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
 - (v) the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
- (B) Limit on Non-Emergency Operation
- As of June 2, 2004 the owner or operator of an in-use emergency standby diesel-fueled CI engine located 500 feet or less from a school shall comply with the following applicable limits on non-emergency operation, which includes maintenance and testing:
- (i) An engine that is located on school grounds shall not be operated for non-emergency use whenever there is a school sponsored activity; and
 - (ii) An engine that is located 100 meters (328 feet) or less from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 4:30 p.m. on days when school is in session, until control equipment is in place, when the hours would be between 7:30 a.m. and 3:30 p.m.; and
 - (iii) An engine that is located more than 100 meters (328 feet) and less than or equal to 500 feet from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 3:30 p.m. on days

when school is in session. An engine that emits diesel PM at a rate of 0.01 g/bhp-hr or less is not subject to this restriction.

- (C) Except as provided in subdivision (h), no owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine (> 50 hp) in the South Coast Air Quality Management District unless it meets, in accordance with the applicable compliance schedules specified in subdivision (e), the following requirements:

(i) Diesel PM Standard and Hours of Operating Requirements

The owner or operator of in-use stationary emergency standby diesel-fueled engines (>50 bhp), except those located on school grounds or 100 meters or less from an existing, as of April 2, 2004, school shall meet the following requirements:

- (I) No owner or operator shall operate an 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 more than 20 hours per year for maintenance and testing purposes. In-use emergency standby diesel fueled CI engines operated at health facilities shall be allowed up to 10 additional 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 subparagraph (c)(3)(C).

- (II) No owner or operator shall operate an 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 more than 30 hours per year for maintenance and testing purposes, except as provided in clause (c)(3)(C)(ii). This subclause does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(3)(C).

(ii) Alternative Diesel PM Standard and Hours of Operating Requirements

The Executive Officer may allow the owner or operator of an in-use emergency standby diesel-fueled CI engine (> 50 hp), except those located on school grounds or 100 meters or less from an existing, as of April 2, 2004, school, 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.
- (iii) Diesel PM Standards and Hours of Operating Requirements For In-Use Stationary Emergency Standby Diesel-Fueled Engines (>50 Bhp) Located on School Grounds or 100 Meters or Less from an Existing, as of April 2, 2004, Schools

All in-use emergency diesel-fueled CI engines (> 50 bhp), subject to this clause, 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 subdivision (e) and operate 75 hours or less per year for maintenance and testing purposes. This subclause does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(3)(C); or
- (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 subdivision (e) and operate 100 hours or less per year for maintenance and testing purposes. This subclause does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(3)(C); or
- (III) Option 3: Reduce the diesel PM emission rate by at least 30% from the baseline level and operate 20 hours or less per year for maintenance and testing purposes, by no later than

January 1, 2006, and emit diesel PM at a rate of 0.01 g/bhp-hr or less and operate 100 hours or less per year for maintenance and testing purposes by no later than July 1, 2011. This subclause does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(3)(C).

(iv) Additional Standards:

Owners or operators that choose to meet the diesel PM standards defined in clauses (c)(3)(C)(i) through (c)(3)(C)(iii) with emission control strategies that are not verified through the Verification Procedure shall either:

- (I) Meet the applicable HC, NO_x, NMHC+NO_x, and CO standards for off-road engines of the same model year and maximum rated power 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 maximum rated power as the in-use stationary emergency standby diesel-fueled CI engine, then the in-use 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 maximum rated power, irrespective of the in-use stationary emergency standby diesel-fueled CI engine's model year; or
- (II) Not increase CO emission rates by more than 10% above baseline and not increase HC or NO_x emission rates by more than 10% above baseline, or not increase the sum of NMHC and NO_x emission rates above baseline.

(v) The District shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with District rules. Hours of operation used solely for testing and demonstration for compliance with District rules shall not be included as part of the engine's cumulative annual hours specified in clauses (c)(3)(C)(i) through (c)(3)(C)(iii).

(vi) Backpressure Relief Option for In-Use Stationary Emergency Standby Engines

Owners or operators of an in-use stationary emergency standby engine located at an Essential Public Service, as defined in Rule 1302, or health facility using a diesel particulate filter to comply with the diesel PM standards of this rule may install an engine exhaust backpressure relief device, provided all of the conditions specified in (c)(2)(E)(ii) through (c)(2)(E)(vi) are met.

(vii) Diesel Particulate Filter Cleaning Option for In-Use Emergency Standby Engines

Owners or operators using a diesel particulate filter to comply with the diesel PM standards of this rule may remove the control equipment filter media for cleaning, provided all of the following conditions are met:

- (i) the in-use emergency standby engine shall not be operated for maintenance and testing or any other non-emergency use while the diesel particulate filter media is removed;
- (ii) the control equipment filter media shall be returned and re-installed within 10 working days from the date of removal;
- (iii) the owner or operator shall maintain records indicating the date(s) the control equipment filter media was removed for cleaning and the date(s) the filter media was re-installed. Records shall be retained pursuant to the requirements specified in subparagraph (d)(7)(C).

(4) New Stationary Prime Diesel-Fueled CI Engines that Have a Rated Brake Horsepower of Greater than 50 (> 50 bhp)

As of January 1, 2005, except as provided in subdivision (h), no person shall sell, purchase, offer for sale, or lease for use in the South Coast Air Quality Management District a new stationary prime diesel-fueled CI engine (>50 bhp) unless it meets the following applicable emission standards, and no person shall operate any new stationary prime diesel-fueled CI engine (>50 bhp) unless it meets all of the following emission standards and operational requirements:

(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 diesel PM standard,

as specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (Title 13, CCR, Section 2423), in effect on the date of acquisition or submittal, as defined in subdivision (b), 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 applicable emission standards specified in South Coast Air Quality Management District Rule 1110.2 – Emissions From Gaseous and Liquid-Fueled Engines.

(5) Emission Standards for In-Use Stationary Prime Diesel-Fueled CI Engines that Have a Rated Brake Horsepower of Greater than 50 (>50 bhp)

Except as provided in subdivision (h), all in-use stationary prime diesel-fueled CI engines (> 50 bhp) operated in the South Coast Air Quality Management District shall meet the following requirements, according to specified dates:

(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 subdivision (e); or
- (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 subdivision (e); or
- (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

Owners or operators that choose to meet the diesel PM limits defined in subparagraph (c)(5)(A) with emission control strategies that are not verified through the Verification Procedure shall:

- (i) Meet the applicable HC, NO_x, NMHC+NO_x, and CO emission standards specified in South Coast Air Quality Management District Rule 1110.2 – Emissions From Gaseous and Liquid-Fueled Engines.
- (6) New and In-Use Stationary Diesel-Fueled CI Engines Used in Agricultural Operations (> 50 bhp)
- New and in-use stationary diesel-fueled CI engines used in agricultural operations (>50 bhp) shall comply with all applicable requirements of title 17, CCR, sections 93115.2, 93115.3, 93115.4, and 93115.8 of the California Air Resources Board's "Airborne Toxic Control Measure for Stationary Compression Ignition Engines."
- (7) Operating Requirements and Emission Standards for New Emergency Standby Diesel-Fueled CI Engines that Have a Rated Brake Horsepower of Greater than 50 (> 50 bhp) Used in Demand Response Programs (DRP Engines)
- (A) Limit on Non-Emergency Operation
- As of June 2, 2004 the owner or operator of a new stationary emergency standby diesel-fueled CI DRP engine located 500 feet or less from a school shall comply with the following applicable limits on non-emergency operation, which includes maintenance and testing:
- (i) An engine that is located on school grounds shall not be operated for non-emergency use whenever there is a school sponsored activity; and
 - (ii) An engine that is located 100 meters (328 feet) or less from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 4:30 p.m. on days when school is in session, until control equipment is in place, when the hours would be between 7:30 a.m. and 3:30 p.m.; and
 - (iii) An engine that is located more than 100 meters (328 feet) and less than or equal to 500 feet from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 3:30 p.m. on days when school is in session. An engine that emits diesel PM at a rate of 0.01 g/bhp-hr or less is not subject to this restriction.
- (B) No owner or operator shall operate any new stationary emergency standby diesel-fueled CI DRP engine (>50 bhp) in response to the notification of an impending rotating outage, unless all of the following criteria are met:
- (i) the engine's permit to operate allows operation of the engine in anticipation of a rotating outage; and

- (ii) 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
 - (iii) the engine is in a specific location that is subject to the rotating outage in the control area; and
 - (iv) 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
 - (v) the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
- (C) Except as provided in subdivision (h), no person shall operate any new stationary emergency standby diesel-fueled CI DRP engine (>50 bhp), unless it meets all of the following applicable operating requirements and emission standards:
- (i) Diesel PM Standard and Hours of Operating Requirements
New DRP engines enrolled in an ISC on or after January 1, 2005 shall:
 - (I) meet a diesel PM standard of 0.01 g/bhp-hr or less or meet the current model year diesel PM standard as specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same horsepower rating (Title 13 CCR Section 2423), in effect on the date of ISC enrollment, whichever is more stringent; and
 - (II) comply with the limitations on the hours of operation for maintenance and testing as specified in clause (c)(2)(C)(i); and
 - (III) not operate more than 150 hours per year for ISC operation.
 - (ii) HC, NO_x, NMHC + NO_x, and CO standards
No owner or operator shall operate any new stationary emergency standby diesel-fueled CI DRP engines (>50 bhp), unless it meets the more stringent of the following emission standards for HC, NO_x, NMHC + NO_x, and CO:
 - (I) The emission requirements specified for spark ignition emergency internal combustion engines pursuant to the most current version of SCAQMD Best Available Control

Technology Guidelines, Part D – BACT Guidelines for Non-Major Polluting Facilities, or

- (II) The standards for off-road engines of the same model year and maximum rated power 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 maximum rated power as the new stationary emergency standby diesel-fueled CI DRP engine, then the new stationary emergency standby diesel-fueled CI DRP engine shall meet the Tier 1 standards in Title 13, CCR, Section 2423, for an off-road engine of the same maximum rated power, irrespective of the new stationary emergency standby diesel-fueled CI DRP engine's model year.
 - (iii) The District shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with District rules. Hours of operation used solely for testing and demonstration for compliance with District rules and for initial start-up testing shall not be included as part of the engine's cumulative annual hours.
- (8) Operating Requirements and Emission Standards for In-Use Emergency Standby Diesel-Fueled CI DRP Engines that Have a Rated Brake Horsepower of Greater than 50 (> 50 bhp)
 - (A) Limit on Non-Emergency Operation

As of June 2, 2004 the owner or operator of an in-use stationary emergency standby diesel-fueled CI DRP engine located 500 feet or less from a school shall comply with the following applicable limits on non-emergency operation, which includes maintenance and testing:

 - (i) An engine that is located on school grounds shall not be operated for non-emergency use whenever there is a school sponsored activity; and
 - (ii) An engine that that is located 100 meters (328 feet) or less from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 4:30 p.m. on days when school is in session, until control equipment is in place, when the hours would be between 7:30 a.m. and 3:30 p.m.; and

- (iii) An engine that is located more than 100 meters (328 feet) and less than or equal to 500 feet from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 3:30 p.m. on days when school is in session, except an engine that emits diesel PM at a rate of 0.01 g/bhp-hr and less, which is not subject to this restriction.
- (B) No owner or operator shall operate any in-use stationary emergency standby diesel-fueled CI DRP engine (>50 bhp) in response to the notification of an impending rotating outage, unless all of the following criteria are met:
- (i) the engine's permit to operate allows operation of the engine in anticipation of a rotating outage; and
 - (ii) 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
 - (iii) the engine is in a specific location that is subject to the rotating outage in the control area; and
 - (iv) 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
 - (v) the engine operation is terminated immediately after the Utility Distribution Company advises that a rotating outage is no longer imminent or in effect.
- (C) Except as provided in subdivision (h), no person shall operate any in-use stationary emergency standby diesel-fueled CI DRP engine (>50 bhp) unless it meets all of the following applicable operating requirements and emission standards:
- (i) Diesel PM Standard and Hours of Operating Requirements for in-use DRP engines enrolled in an ISC prior to January 1, 2005, shall as of January 1, 2006:
 - (I) meet a diesel PM standard of 0.15 g/bhp-hr or less diesel PM; and
 - (II) meet the requirements specified in clauses (c)(3)(C)(i) through (c)(3)(C)(v) for maintenance and testing hours of operation; and
 - (III) not operate more than 150 hours per year for ISC operation.

- (ii) Diesel PM Standard and Hours of Operating Requirements for in-use DRP engines enrolled in an ISC on or after January 1, 2005, and prior to January 1, 2008:
 - (I) meet a diesel PM standard of 0.15 g/bhp-hr or less diesel PM; and
 - (II) meet the requirements specified in clauses (c)(3)(C)(i) through (c)(3)(C)(v) for maintenance and testing hours of operation; and
 - (III) not operate more than 150 hours per year for ISC operation.
- (iii) Diesel PM Standard and Hours of Operating Requirements for in-use DRP engines enrolled in an ISC after January 1, 2008:
 - (I) meet a diesel PM standard of 0.01 g/bhp-hr or less diesel PM; and
 - (II) meet the requirements specified in clauses (c)(3)(C)(i) through (c)(3)(C)(v) for maintenance and testing hours of operation; and
 - (III) not operate more than 150 hours per year for ISC operation.
- (iv) Additional Standards:

Owners or operators that choose to meet the diesel PM limits and hour of operation limits defined in clauses (c)(8)(C)(i) through (c)(8)(C)(iii) with emission control strategies that are not verified through the Verification Procedure shall either:

 - (I) Meet the applicable HC, NO_x, NMHC+NO_x, and CO standards for off-road engines of the same model year and maximum rated power 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 maximum rated power as the in-use stationary emergency standby diesel-fueled CI DRP engine, then the in-use stationary emergency standby diesel-fueled CI DRP engine shall meet the Tier 1 standards in Title 13, CCR, Section 2423 for an off-road engine of the same maximum rated power, irrespective of the in-use stationary emergency standby diesel-fueled CI DRP engine's model year; or

- (II) not increase CO emission rates by more than 10% above baseline and not increase HC or NOx emission rates by more than 10% above baseline, or not increase the sum of NMHC and NOx emission rates above baseline.
 - (v) The District shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with District rules. Hours of operation used solely for testing and demonstration for compliance with District rules shall not be included as part of the time for maintenance and testing purposes allowed under clauses (c)(3)(C)(i) through (c)(3)(C)(v).
 - (9) Requirements Applicable to DRP Engines After a DRP is Terminated
After a DRP is terminated by either the Utility Distribution Company or the engine owner or operator, the DRP engine shall remain subject to the requirements of paragraphs (c)(7) and (c)(8) as if the DRP were still in effect.
 - (10) Emission Standards for New Stationary Diesel-Fueled CI Engines Less than or Equal to 50 Brake Horsepower (≤ 50 bhp)
New stationary diesel-fueled CI engines with a rated brake horsepower less than or equal to 50 shall comply with all applicable requirements of Title 17, CCR, section 93115.9 of the California Air Resources Board's "Airborne Toxic Control Measure for Stationary Compression Ignition Engines."
- (d) Recordkeeping, Reporting, and Monitoring Requirements
- (1) 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)
 - (A) Except as provided in subdivision (h) and subparagraph (d)(1)(D) 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 subparagraph (d)(1)(C) to the Executive Officer.
 - (B) Except as provided in subdivision (h) and subparagraph (d)(1)(D) 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 subparagraph (d)(1)(C) to the Executive Officer.
 - (C) Each owner or operator shall submit to the Executive Officer all of the following information for each new and in-use stationary CI engine

(>50 bhp), in accordance with the requirements of subparagraphs (d)(1)(A) and (d)(1)(B) above:

- (i) Owner/Operator Contact Information
 - (I) Company name
 - (II) Contact name, phone number, address, e-mail address
 - (III) Address of engine(s)
- (ii) 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
 - (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) Diameter of stack outlet
 - (X) Direction of outlet (horizontal or vertical)
 - (XI) End of stack (open or capped)
 - (XII) Control equipment (if applicable)
 - (aa) Turbocharger
 - (bb) Aftercooler
 - (cc) Injection Timing Retard
 - (dd) Catalyst
 - (ee) Diesel Particulate Filter
 - (ff) Other
- (iii) 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)
 - (iv) Operation Information
 - (I) Description of 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)
 - (v) Receptor Information
 - (I) Nearest receptor description (receptor type)
 - (II) Distance to nearest receptor (feet or meters)
 - (III) Distance to nearest school
 - (vi) State whether the engine is included in an existing AB2588 emission inventory.
- (D) The Executive Officer may exempt the owner or operator from providing all or part of the information identified in subparagraph (d)(1)(C) if there is a current record of the information in the owner or operator's permit to operate, permit application, or District records.
- (2) Demonstration of Compliance with Emission Limits
- (A) 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 subparagraph (c)(2)(C), (c)(2)(D), (c)(4)(A), (c)(4)(B), (c)(7)(A), or (c)(7)(C) shall provide emission data to the Executive Officer in accordance with the requirements of subdivision (f) for purposes of demonstrating compliance.
- (B) By no later than the earliest applicable compliance date specified in subdivision (e), the owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of subparagraphs (c)(3)(C), (c)(5)(A), or (c)(8)(C) shall provide emissions and/or operational data to the Executive Officer in accordance with the requirements of subdivision (f) for purposes of demonstrating compliance.
- (3) 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 paragraphs (c)(1) through (c)(9) shall notify the Executive Officer immediately upon detection of the violation and shall be subject to district enforcement action.

- (4) Notification of Loss of Exemption
 - (A) Owners or operators of in-use stationary diesel-fueled CI engines, who are subject to an exemption specified in subdivision (h) from all or part of the requirements of paragraphs (c)(2) through (c)(9), shall notify the Executive Officer immediately after they become aware that the exemption no longer applies. No later than 180 days after notifying the Executive Officer, the owner or operator shall demonstrate compliance with the requirements of paragraphs (c)(2) through (c)(9). An owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of paragraphs (c)(2) through (c)(9) shall provide emission data to the Executive Officer in accordance with the requirements of subdivision (f) for purposes of demonstrating compliance.
 - (B) The Executive Officer shall notify owners or operators of in-use stationary diesel-fueled CI engines, who are subject to the exemption specified in paragraph (h)(7) from the requirements of paragraphs (c)(1) through (c)(9), when the exemption no longer applies. No later than 180 days after notification by the Executive Officer, the owner or operator shall demonstrate compliance with the requirements of paragraphs (c)(1) through (c)(9). An owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of paragraphs (c)(2) through (c)(9) shall provide emissions data to the Executive Officer in accordance with the requirements of subdivision (f) for purposes of demonstrating compliance.
- (5) Monitoring Equipment
 - (A) A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed on all engines subject to any of the requirements of paragraphs (c)(2) through (c)(9), unless the District determines on a case-by-case basis that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history.
 - (B) All DPFs installed pursuant to the requirements in paragraphs (c)(2) through (c)(9) must be installed with a backpressure monitor to notify the owner or operator when the high backpressure limit of the engine is approached.
 - (C) The Executive Officer may by permit condition 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

paragraphs (c)(2) through (c)(9), upon determining that such equipment is necessary to ensure the effectiveness of the selected control strategy.

(6) Reporting Provisions for Exempted Prime Engines

An owner or operator of an engine subject to paragraphs (h)(4) or (h)(9) 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 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.

(7) Reporting Requirements for Emergency Standby Engines

(A) 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 list and document the nature of use in each of the following areas:

- (i) emergency use hours of operation;
- (ii) maintenance and testing hours of operation;
- (iii) hours of operation for emission testing to show compliance with subparagraphs (c)(2)(C) and (c)(3)(C);
- (iv) initial start-up and testing hours;
- (v) hours of operation for all uses other than those specified in clauses (d)(7)(A)(i) through (d)(7)(A)(iv) above;
- (vi) if applicable, hours of operation to comply with the requirements of NFPA 25;
- (vii) if applicable, DRP engine hours of operation;
- (viii) hours of operation to demonstrate compliance with District rules; and
- (ix) the fuel used.

(I) For engines operated exclusively on CARB Diesel Fuel, the owner or operator shall document the use of CARB Diesel Fuel through the retention of fuel purchase records indicating that the only fuel purchased for supply to an emergency standby engine was CARB Diesel Fuel; or

(II) For engines operated on any fuel other than CARB Diesel Fuel, fuel records demonstrating that the only fuel purchased

and added to an emergency standby engine or engines, meets the requirements of paragraph (c)(1).

- (B) Alternative Fuel Recordkeeping Requirements for Owners and/or Operators of Emergency Standby Engines

In lieu of a log of usage, as specified in clause (d)(7)(A)(ix), the owner and/or operator may maintain a monthly summary of fuel purchases for the engine.

- (C) Records shall be retained for a minimum of 36 months. Records for the prior 24 months shall be retained on-site, either at a central location or at the engine's location, or at an offsite central location within California, and shall be made immediately available to the District staff upon request. Records for the prior 25 to 36 months shall be made available to District staff within 5 working days from request.

- (8) Additional Reporting Requirements for Stationary Emergency Diesel-Fueled CI Engines Used to Fulfill the Requirements of an Interruptible Service Contract (ISC)
The owner or operator of an ISC engine shall provide to the District the following information, as necessary to the extent the District does not already have the information:

- (A) For each diesel-fueled engine enrolled in an ISC:

- (i) Owner's Company Name (if applicable);
- (ii) Contact name, phone number, and e-mail address;
- (iii) Model year and engine manufacturer;
- (iv) Annual hours of engine operation under ISC and emergency use; and
- (v) Diesel PM emission rate of the engine (g/bhp-hr).

- (B) The owner or operator shall update the information identified in subparagraph (d)(8)(A) as necessary to reflect the current inventory of ISC engines and shall provide a complete and updated inventory annually to the District and the California Air Resources Board no later than 90 days after December 31st of any given year thereafter.

- (i) The California Air Resources Board shall evaluate the submitted inventory and information annually to determine whether any subsequent year's submittal is necessary.
- (ii) If the California Air Resources Board determines a submittal is not necessary for any subsequent year, the California Air Resources Board will notify the owner or operator by December 31st of any given year of such determination.

- (C) The owner or operator may identify to the Executive Officer documentation demonstrating that all or part of the information required under paragraph (d)(8) has been previously submitted. If acceptable to the Executive Officer, the owner or operator shall be exempted from resubmitting the information.
- (e) Compliance Schedule and Permit Application Dates
- (1) For each in-use emergency standby diesel-fueled CI engine (> 50 bhp), that will meet the requirements of paragraph (c)(3) solely through maintaining or reducing the current annual hours of operation for maintenance and testing, the owner or operator shall be in compliance with the annual hours of operation limits beginning January 1, 2006.
- (2) For Owners or Operators of Three or Fewer Engines in the South Coast Air Quality Management District
For each in-use emergency standby diesel-fueled CI engine (> 50 bhp), that does not comply with paragraph (e)(1) in order to meet the requirements of paragraph (c)(3) and each stationary diesel-fueled CI engine (> 50 bhp) complying with emission limitations specified in paragraphs (c)(3) or (c)(5), the owner or operator shall meet the following 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 and later model year engines shall be in compliance by no later than January 1, 2008.
- (3) For Owners or Operators of Four or More Engines in the South Coast Air Quality Management District
For each emergency standby diesel-fueled CI engine (> 50 bhp) under common ownership or operation that does not comply with paragraph (e)(1) in order to meet the requirements of paragraph (c)(3) and stationary diesel-fueled CI engines (> 50 bhp) complying with emission limitations specified in paragraphs (c)(3) or (c)(5), the owner or operator shall comply with the following:
- (A) No later than July 1, 2005, the owner or operator shall submit a compliance plan, pursuant to paragraph (e)(4); and
- (B) Meet the requirements of paragraphs (c)(3) or (c)(5), in accordance with the following schedule:

Pre-1989 Through 1989 Model Year Engines, Inclusive

| <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 |

1990 through 1995 Model Year Engines, Inclusive

| <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 |

(4) Compliance Plan

- (A) A submitted compliance plan shall be subject to plan fees specified in Rule 306 and shall include the following information:
- (i) Owner/operator contact information (company name, AQMD facility identification number, contact name, phone number, address, e-mail address); and
 - (ii) AQMD permit number(s) and address(es) of engine(s) for engines subject to subparagraph (e)(3)(A); and
 - (iii) Identification of the control strategy for each stationary diesel-fueled CI engine that when implemented will result in compliance with the applicable requirements of paragraphs (c)(3) and (c)(5). If applicable, the information should include the Executive Order number issued by the Executive Officer of the Air Resources Board for a Diesel Emission Control Strategy that has been approved by the Executive Officer of the Air Resources Board through the Verification Procedure; and
 - (iv) Consistent with the dates specified in paragraphs (e)(2) and (e)(3), a schedule showing key milestone dates for each engine demonstrating how the engine will be brought into compliance with the applicable requirements of paragraphs (c)(3) and (c)(5). In instances where engines are located on school grounds or 100 meters or less from an existing, as of April 2, 2004,

school, the schedule shall give priority to bringing these engines into compliance with the applicable requirements of paragraphs (c)(3) and (c)(5).

(B) The owner or operator may identify to the Executive Officer documentation demonstrating that all or part of the information required under subparagraph (e)(4)(A) has been previously submitted. If acceptable to the Executive Officer, the owner or operator shall be exempted from resubmitting the information.

(5) Permit Application Dates

Permit applications necessary to achieve compliance with paragraphs (c)(3) and (c)(5) shall be submitted no later than six (6) months prior to the compliance dates specified in paragraphs (e)(1) through (e)(3).

(f) Emissions Data

(1) Upon approval by the Executive Officer, the following sources of data may be used in whole or in part to demonstrate compliance with the emissions standards or requirements of paragraphs (c)(2) through (c)(10):

(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 paragraphs (c)(2) through (c)(10), shall be done in accordance with the methods specified in subdivision (g).

(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 Executive Officer'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.
- (6) Alternative Compliance Demonstration
- The owner or operator of a new or in-use stationary diesel-fueled CI engine (> 50 bhp) may demonstrate compliance with the 0.01 g/bhp-hr PM emission standard of paragraphs (c)(2) through (c)(8) by using one of the following:
- (A) a level 3 Verified Diesel Emission Control Strategy in combination with a certified CI engine that meets a 0.15 g/bhp-hr or less PM emission standard; or
 - (B) an alternative diesel PM control method that is equally or more effective than a level 3 Verified Diesel Emission Control Strategy in combination with a certified CI engine that meets a 0.15 g/bhp-hr or less PM emission standard, and is approved for use by the Executive Officer.
- (g) Test Methods
- (1) The following test methods shall be used to determine diesel PM, HC, NO_x, CO and NMHC emission rates:
 - (A) Diesel PM emission testing shall be done in accordance with one of the following methods:
 - (i) 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.
 - (I) For purposes of this clause, 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.

- (II) 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 Executive Officer.
 - (III) The Executive Officer may require additional engine or operational duty cycle data if an alternative test cycle is requested; or
 - (ii) 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
 - (iii) 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:
- (i) 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.
 - (I) 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 Executive Officer.
 - (II) The Executive Officer may require additional engine or operational duty cycle data if an alternative test cycle is requested; or
 - (ii) 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
 - (iii) 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:

- (i) 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
 - (ii) 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) The Executive Officer may approve the use of alternatives to the test methods listed in paragraph (g)(1), provided the alternatives are demonstrated to the Executive Officer’s satisfaction as accurate in determining the emission rate of diesel PM, HC, NOx, NMHC, or CO.
- (h) Exemptions
- (1) The requirements of this rule 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 rule do not apply to CI engines used for the propulsion of marine vessels or auxiliary CI engines used on marine vessels.
 - (3) The requirements specified in paragraph (c)(10) 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, “Standard Test Method for Cetane Number of Diesel Fuel Oil,” as modified on June 10, 2003, which is incorporated herein by reference.
 - (4) The requirements specified in subparagraphs (c)(3)(C) and (c)(5)(A) 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 and comply with 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.
 - (5) The requirements specified in subparagraph (c)(3)(C) 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.

- (6) The requirements in paragraphs (c)(1), (c)(4), and (c)(5) do not apply to any stationary diesel-fueled CI engine used solely for the training and testing of United States Department of Defense (U.S. DoD) students or personnel of any U.S. military branch in the operation, maintenance, repair, and rebuilding of engines when such training engines are required to be configured and designed similarly to counterpart engines used by the U.S. DoD, U.S. Military services, or North Atlantic Treaty Organization (NATO) forces in combat, combat support, combat service support, tactical or relief operations used on land or at sea.
- (7) The requirements specified in paragraphs (c)(1) through (c)(9) do not apply to stationary diesel-fueled CI engines used solely on San Clemente Island. The Executive Officer shall review the land use plans for the island 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.
- (8) The requirements specified in paragraphs (c)(2) through (c)(9) 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.
- (9) Request for Exemption for Low-Use Prime Engines Outside of School Boundaries. The Executive Officer may approve a Request for Exemption from the provisions of paragraph (c)(5) for any in-use stationary diesel-fueled CI engine located beyond school boundaries, provided the approval is in writing and the writing specifies all of the following conditions to be met by the owner or operator:
 - (A) the engine is a prime engine;
 - (B) the engine is located more than 500 feet from a school at all times; and
 - (C) the engine operates no more than 20 hours cumulatively per year, unless the engine is used to start a combustion turbine in a refinery cogeneration plant, in which case a different number of hours may be approved by the Executive Officer, on a case-by-case basis per facility, considering operational requirements and emission impacts.
- (10) The requirements in subparagraphs (c)(3)(C) and (c)(5)(A) do not apply to in-use dual-fueled diesel pilot CI engines that use an alternative fuel or an alternative diesel fuel.
- (11) The requirements in paragraph (c)(1), subparagraphs (c)(2)(C), (c)(3)(C), (c)(4)(A), and (c)(5)(A) do not apply to dual-fueled diesel pilot CI engines that use diesel fuel and digester gas or landfill gas.
- (12) The requirements in subparagraphs (c)(3)(C) and (c)(5)(A) do not apply to in-use stationary diesel-fueled CI engines that have selective catalytic reduction systems.

- (13) The requirements of subparagraph (c)(3)(C) 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*, 2002 edition or the most current edition, which is incorporated herein by reference.
- (14) The requirements of paragraph (c)(1), subparagraphs (c)(2)(C), (c)(2)(D), and (c)(3)(C), and paragraphs (c)(4) and (c)(5) 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 manned-space-flight facilities (launch, tracking, and landing sites), provided the Executive Officer approves this exemption in writing. This exemption only applies to diesel engines that power equipment which is maintained in the same configuration as similar equipment at all manned-space-flight facilities.
- (15) Upon written approval of the Executive Officer, the requirements of this rule shall not apply to stationary CI engines used exclusively:
 - (A) as engine test cells and test stands for testing CI engines, or CI engine components;
 - (B) for operation or performance testing of fuels, fuel additives, or emission control devices at research and development facilities; or
 - (C) for maintenance, repair, or rebuild training at educational facilities.
- (16) The diesel PM requirements of subparagraph (c)(2)(C)(iv) do not apply to new stationary emergency standby diesel-fueled engines installed and with an application for Permit to Construct or Permit to Operate deemed complete on or after January 1, 2013, provided the following conditions are met:
 - (A) the new stationary emergency standby engine is a replacement of an existing stationary emergency standby engine used for the same purpose; and
 - (B) the new stationary emergency standby engine is installed or to be installed at the same physical location as the engine being replaced; and
 - (C) the engine owner can demonstrate to the satisfaction of the Executive Officer, that there is insufficient space in the area where the engine is located such that installation or addition of emission control equipment would require demolition or removal of one or more load bearing walls, the floor, or the ceiling; and
 - (D) the installation of the new stationary emergency standby engine or other ancillary equipment, excluding emission control equipment, does not require

the demolition or removal of one or more load bearing walls, the floor, or the ceiling; and

- (E) engines meeting all of the requirements of subparagraphs (h)(16)(A) through (h)(16)(D) shall be a certified CI engine that emits diesel PM at a rate less than or equal to 0.15 g/bhp-hr; and
- (F) the diesel PM requirement is not required pursuant to South Coast Air Quality Management District Rule 1401 – New Source Review of Toxic Air Contaminants or Regulation XIII – New Source Review.

(i) Severability, Effect of Judicial Order

In the event that any portion of this rule is held by judicial order to be invalid, such order shall not affect the validity of the remaining portions of this rule.

(j) Applicability of the AB 2588 Air Toxics “Hot Spots” Program

Facilities that have stationary CI engines subject to this rule are also subject to the requirements of the AB 2588 Air Toxics “Hot Spots” Program.

(k) Major Sources

All major sources shall comply with the requirements of 40 CFR 63 subpart ZZZZ.