

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

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

*(Adopted April 2, 2004)*

(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 as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM Standard Specification for Diesel Fuel Oils D975-81 or an alternative fuel, and does not require engine or fuel system modifications for the engine to operate, although minor modifications (e.g., recalibration of the engine fuel control) may enhance performance. Examples of alternative diesel fuels include, but are not limited to, biodiesel, Fischer-Tropsch fuels, emulsions of water in diesel fuel, and fuels with a fuel additive, unless:
  - (A) the additive is supplied to the engine fuel by an on-board dosing mechanism; or

- (B) the additive is directly mixed into the base fuel inside the fuel tank of the engine; or
  - (C) the additive and base fuel are not mixed until engine fueling commences, and no more additive plus base fuel combination is mixed than required for a single fueling of a single engine.
- (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 is commonly or commercially known, sold, or represented as diesel fuel No. 1-D or No. 2-D, pursuant to the specification for Diesel Fuel Oils D975-81 that meets the specifications defined in title 13 CCR, sections 2281, 2282, and 2284.
  - (7) CANCER RISK means the characterization of the probability of developing cancer from exposure to environmental chemical hazards, in accordance with the methodologies defined in “The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments”, August 2003, which is incorporated herein by reference.
  - (8) 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.
  - (9) 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.
  - (10) 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).

- (11) DEMAND RESPONSE PROGRAM (DRP) means a program for reducing electrical demand using an interruptible service contract (ISC).
- (12) DIESEL FUEL means any fuel that is commonly or commercially known, sold, or represented 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 as suitable for use in an internal combustion, compression-ignition engine.
- (13) DIESEL-FUELED means fueled by diesel fuel, CARB diesel fuel, or jet fuel, in whole or part.
- (14) DIESEL PARTICULATE FILTER (DPF) means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removing the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.
- (15) DIESEL PARTICULATE MATTER (PM) means the particles found in the exhaust of diesel-fueled CI engines as determined in accordance with the test methods identified in subdivision (g).
- (16) DIGESTER GAS is any gas derived from anaerobic decomposition of organic matter.
- (17) DRP ENGINE means an engine that is enrolled in a DRP.
- (18) DUAL-FUEL DIESEL PILOT ENGINE means a dual-fueled engine that uses diesel fuel as a pilot ignition source at an annual average ratio of less than 5 parts diesel fuel to 100 parts total fuel on an energy equivalent basis.
- (19) DUAL-FUEL ENGINE means any CI engine that is engineered and designed to operate on a combination of alternative fuels, such as compressed natural gas (CNG) or liquefied petroleum gas (LPG) and diesel fuel or an alternative diesel fuel. These engines have two separate fuel systems, which inject both fuels simultaneously into the engine combustion chamber.
- (20) EMERGENCY STANDBY ENGINE means a stationary engine that meets the criteria specified in subparagraphs (b)(20)(A) and (b)(20)(B) and any combination of subparagraphs (b)(20)(C), (b)(20)(D), or (b)(20)(E) below:

- (A) is installed for the primary purpose of providing electrical power or mechanical work during an emergency 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 operated under limited circumstances for maintenance and testing, emissions testing, or initial start-up testing, as specified in paragraphs (c)(2), (c)(3), and (c)(7); or
  - (D) is operated under limited circumstances in response to an impending outage, as specified in paragraphs (c)(2), (c)(3), and (c)(7); or
  - (E) is operated under limited circumstances under a DRP as specified in paragraph (c)(7).
- (21) EMERGENCY USE means providing electrical power or mechanical work during any of the following events, 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) fire training purposes, if approved by the Executive Officer on a case-by-case basis per facility;

- (F) the powering of ALSF-1 and ALSF-2 airport runway lights under category II or III weather conditions.
- (22) EMISSION CONTROL STRATEGY means any device, system, or strategy employed with a diesel-fueled CI engine that is intended to reduce emissions including, but not limited to, particulate filters, diesel oxidation catalysts, selective catalytic reduction systems, fuel additives used in combination with particulate filters, alternative diesel fuels, and any combination of the above.
- (23) END USER means any person who purchases or leases a stationary diesel-fueled engine for operation in the South Coast Air Quality Management District. Persons purchasing engines for resale are not considered “end users.”
- (24) ENROLLED means the ISC is in effect during the specified time period for an engine in an ISC.
- (25) EXECUTIVE OFFICER means the executive officer of the South Coast Air Quality Management District, or his or her designated representative.
- (26) 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.
- (27) 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.

- (28) GENERATOR SET means a CI engine coupled to a generator that is used as a source of electricity.
- (29) 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”, August 2003, which is incorporated herein by reference.
- (30) HAZARDOUS AIR POLLUTANT (HAP) means any pollutant on a list maintained by EPA pursuant to Section 112(b) of the federal Clean Air Act.
- (31) IN-USE means a CI engine that is not a “new” CI engine.
- (32) INITIAL START-UP TESTING means operating the engine or supported equipment to ensure their proper performance either:
  - (A) for the first time after initial installation of a new stationary diesel-fueled CI engine at a facility, or
  - (B) for the first time after installation of emission control equipment on an in-use stationary diesel-fueled CI engine.
- (33) 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.
- (34) 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.
- (35) LANDFILL GAS means any gas derived through any biological process from the decomposition of waste buried within a waste disposal site.

- (36) LOCATION means any single site at a facility.
- (37) MAINTENANCE AND TESTING means operating an emergency standby CI engine to evaluate the ability of the engine or its supported equipment to perform during an emergency. Supported equipment includes, but is not limited to, generators, pumps, transformers, switchgear, and breakers.
- (38) 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.
- (39) MAXIMUM RATED POWER means the maximum brake kilowatt output of an engine as stated by the manufacturer in the manufacturer's sales and service literature.
- (40) 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.
- (41) NEW or NEW CI ENGINE means the following:
  - (A) a stationary CI engine installed at a facility after January 1, 2005, including an engine relocated from an off-site location after January 1, 2005, except the following shall be deemed in-use engines:
    - (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; or
    - (ii) an engine that was approved by the District for installation prior to the effective date of this rule but is not installed until after January 1, 2005; or
    - (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; or

(iv) an engine installed prior to or on January 1, 2005 in a facility used in agricultural operations that is owned by an owner or operator, which is subsequently relocated to an offsite location that is owned by the same owner or operator.

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

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

(42) NON-METHANE HYDROCARBONS (NMHC) means the sum of all hydrocarbon air pollutants except methane.

(43) 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.

(44) PORTABLE CI ENGINE means a compression ignition (CI) engine designed and capable of being carried or moved from one location to another and does not qualify as a stationary CI engine as defined in paragraph (b)(56). 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.

- (45) PRIME CI ENGINE means a stationary CI engine that is not an emergency standby CI engine.
- (46) 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, July 1990 (CAPCOA, 1990),” which is incorporated herein by reference.
- (47) RATED BRAKE HORSEPOWER (BHP) means the maximum brake horsepower output of an engine as stated by the manufacturer in the manufacturer’s sales and service literature.
- (48) 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.
- (49) 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.
- (50) ROTATING OUTAGE means a controlled, involuntary curtailment of electrical power service to consumers as ordered by the Utility Distribution Company.
- (51) SCHOOL means any public or private school used for purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes. The term includes any building or structure, playground, athletic field, or other area of school property. The term excludes unimproved school property.
- (52) SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM means an emission control system that reduces NOx emissions through the catalytic

reduction of NO<sub>x</sub> in diesel exhaust by injecting nitrogen-containing compounds into the exhaust stream, such as ammonia or urea.

- (53) SELLER means any person who sells, leases, or offers for sale any stationary diesel-fueled engine directly to end users.
- (54) STAGE 2 ALERT means a forecast or declaration by the California Independent System Operator that the operating reserves of electrical power will fall or have fallen below 5 percent.
- (55) STAGE 3 ALERT means a 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.
- (56) 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.
- (57) 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.

(58) 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.

(59) VERIFICATION PROCEDURE, WARRANTY AND IN-USE COMPLIANCE REQUIREMENTS FOR IN-USE STRATEGIES TO CONTROL EMISSIONS FROM DIESEL ENGINES (VERIFICATION PROCEDURE) means the ARB regulatory procedure codified in title 13, CCR, sections 2700-2710, which is incorporated herein by reference, that engine manufacturers, sellers, owners, or operators may use to verify the reductions of diesel PM or NO<sub>x</sub> from in-use diesel engines using a particular emission control strategy.

(60) VERIFIED DIESEL EMISSION CONTROL STRATEGY means an emission control strategy, designed primarily for the reduction of diesel PM emissions, which has been verified pursuant to the Verification Procedure.

(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)

As of January 1, 2006, except as provided in subdivision (h), the owner or operator of a new stationary CI engine or an in-use stationary diesel-fueled CI engine shall only fuel the engine with:

- (A) CARB Diesel Fuel; or
- (B) an alternative diesel fuel that meets the requirements of the Verification Procedure; or
- (C) an alternative fuel; or
- (D) CARB Diesel Fuel used with fuel additives that meets the requirements of the Verification Procedure; or
- (E) any combination of the fuels identified in subparagraphs (c)(1)(A) through (c)(1)(D), 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:

- (i) 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.
- (ii) 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 as part 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) As of January 1, 2005, except as provided in subdivision (h), no person shall sell, offer for sale, purchase, or lease for use in the South Coast Air Quality Management District any stationary emergency standby diesel-fueled CI engine that has a rated brake horsepower greater than 50 unless it meets all of the following applicable emission standards, and no person shall operate any new stationary emergency standby diesel-fueled CI engine that has a rated brake horsepower greater than 50, unless it meets all of the following applicable operating requirements and emission standards:
- (i) Diesel PM Standard and Hours of Operating Requirements  
New 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:
    - (I) emit diesel PM at a rate less than or equal to 0.15 g/bhp-hr; or
    - (II) meet the current model year diesel PM standard specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the

same maximum rated power (title 13 CCR section 2423), whichever is more stringent; and

- (III) not operate more than 50 hours per year for maintenance and testing purposes. This subclause does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(2)(C).

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

The Executive Officer may allow the owner or operator of a new emergency standby diesel-fueled CI engine (> 50 hp) to meet the following alternative standards and hours of operating requirements:

- (I) emit diesel PM at a rate less than or equal to 0.01 g/bhp-hr; and
- (II) not operate more than 100 hours 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)(2)(C).

(iii) Diesel PM Standard and Hours of Operating Requirements 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 an existing, as of April 2, 2004, school shall:

- (I) emit diesel PM at a rate less than or equal to 0.01 g/bhp-hr; and
- (II) not operate more than 100 hours 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)(2)(C).

(iv) HC, NO<sub>x</sub>, NMHC + NO<sub>x</sub>, and CO standards

New stationary emergency standby diesel-fueled CI engines (> 50 bhp) must meet the standards for off-road engines of the same model year and 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 engine, then the new stationary emergency standby diesel-fueled CI engine shall meet the Tier 1 standards in title 13, CCR, section 2423 for an off-road engine of the same maximum rated power, irrespective of the new stationary emergency standby diesel-fueled CI engine's model year.

- (v) 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 clauses (c)(2)(C)(i), through (c)(2)(C)(iii).

(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 as part 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:

- (i) 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.
- (ii) 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 of an in-use stationary emergency standby diesel-fueled CI engine (> 50 hp) shall operate the engine 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. 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<sub>x</sub>, NMHC+NO<sub>x</sub>, 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<sub>x</sub> emission rates by more than 10% above baseline, or not increase the sum of NMHC and NO<sub>x</sub> 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).

(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, or lease for use in the South Coast Air Quality Management District a new stationary prime diesel-fueled CI engine that has a rated brake horsepower greater than 50 unless it meets the following applicable emission standards, and no person shall operate any new stationary prime diesel-fueled CI engine that has a rated brake horsepower greater than 50 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 current off-road PM certification standard for off-road engines of the same maximum rated power (title 13, CCR, section 2423), whichever is more stringent;

(B) HC, NO<sub>x</sub>, NMHC + NO<sub>x</sub>, and CO Standards

All new stationary prime diesel-fueled CI engines (> 50 bhp) shall meet the standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423). If no limits have been established for an off-road engine of the same model year and maximum rated power as the new stationary prime diesel-fueled CI engine, then the new stationary prime diesel-fueled CI engine shall meet the Tier 1 standards in title 13, CCR, section 2423, for an off-road engine of the same maximum rated power, irrespective of the new stationary prime diesel-fueled CI engine's model year;

(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<sub>x</sub>, NMHC+NO<sub>x</sub>, 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 prime diesel-fueled CI engine, then the in-use stationary prime diesel-fueled CI engine shall meet the Tier 1 standards in title 13, CCR, section 2423 for an off-road engine of the same maximum rated power, irrespective of the in-use stationary prime 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 NOx emission rates by more than 10% above baseline, or not increase the sum of NMHC and NOx emission rates above baseline.

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

(A) As of January 1, 2005, except as provided in subdivision (h) and subparagraph (c)(6)(B), no person shall sell, purchase, or lease for use in the South Coast Air Quality Management District any stationary diesel-fueled engine to be used in agricultural operations that has a rated brake horsepower greater than 50, or operate any new stationary diesel-fueled engine to be used in agricultural operations that has a rated brake horsepower greater than 50, unless the engine meets all of the following emission performance standards:

(i) Diesel PM Standard

New agricultural stationary diesel-fueled CI engines shall emit no more than 0.15 g/bhp-hr diesel particulate matter (PM) limit or shall meet the current standards for off-road engines of the same maximum rated power as specified in the Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423), whichever is lower; and

(ii) NMHC, NOx, and CO Standards

New agricultural stationary diesel-fueled CI engines shall meet the HC, NOx, (or NMHC+NOx, if applicable) 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 limits have been established for an off-road engine of the same model year and maximum rated power as the new agricultural stationary diesel-fueled CI engine, then the new agricultural stationary diesel-fueled CI engine shall meet the Tier 1 standards in title 13, CCR, section 2423, for an off-road engine of the same maximum rated power, irrespective of the new agricultural diesel-fueled CI engine's model year.

(B) Prior to January 1, 2008, the requirements of subparagraph (c)(6)(A) shall not apply to any stationary diesel-fueled CI engine that:

- (i) is used in agricultural operations, and
- (ii) was funded under a State or federal incentive funding program which, for purposes of this subsection include, but are not limited to, California's Carl Moyer Program, as set forth in title 17, Part 5, Chapter 9 of the California Health and Safety Code, and the U.S. Department of Agriculture's Environmental Quality Incentives Program (EQIP), as set forth in title 7, Chapter XIV, Part 1466 of the Code of Federal Regulations; and
- (iii) was sold for use in another agricultural operation, provided the stationary diesel-fueled CI engine complies with Tier II Off-Road Compression Ignition Standards for off-road engines of the same maximum rated power (title 13, CCR, section 2423).

(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:

- (i) 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.
  - (ii) 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 as part 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, except this requirement does not apply to an engine that is operating pursuant to a DRP and is located outside of the control area with the impending 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 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 specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same horsepower rating (Title 13 CCR section 2423), whichever is more stringent; and
- (II) comply with the limitations on the hours of operation for maintenance and testing as specified in clauses (c)(2)(C)(i) through (c)(2)(C)(iii), whichever is applicable; and
- (III) not operate more than 150 hours per year for ISC operation.

(ii) HC, NO<sub>x</sub>, NMHC + NO<sub>x</sub>, 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 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 prime 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:

- (i) 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.
- (ii) 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 as part 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, except this requirement does not apply to an engine that is operating pursuant to a

- DRP and is located outside of the control area with the impending 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 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, 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.
  - (ii) 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.
  - (iii) 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) and (c)(8)(C)(ii) with emission control

strategies that are not verified through the Verification Procedure shall either:

- (I) Meet the applicable HC, NO<sub>x</sub>, NMHC+NO<sub>x</sub>, 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<sub>x</sub> emission rates by more than 10% above baseline, or not increase the sum of NMHC and NO<sub>x</sub> emission rates above baseline.
- (iv) 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)(iv).
- (9) Requirements Applicable to DRP Engines After a DRP is Terminated  
After a DRP is terminated by either the Utility Distribution Company of 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 ( $\leq 50$  bhp)

As of January 1, 2005, except as provided in subdivision (h), no owner or operator shall sell or offer for sale or lease for use in the South Coast Air Quality Management District any stationary diesel-fueled CI engine that has a rated brake horsepower less than or equal to 50, unless the engine meets the current Off-Road Compression-Ignition Engine Standards (title 13, CCR, section 2423) for PM, NMHC+NO<sub>x</sub>, and CO for off-road engines of the same maximum rated power.

(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)(E) 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)(E) 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 Rating
- (VII) Exhaust stack height from ground
- (VIII) Engine Emission Factors and supporting data for PM, NO<sub>x</sub> and NMHC separately or NMHC+NO<sub>x</sub>, 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 or other applicable written information previously submitted to the District.
- (2) Reporting Requirements for Sellers of New Emergency Standby or Stationary Prime Diesel-Fueled CI Engines (>50 bhp) Sold To Agricultural Operations

Except as provided by subdivision (h), by January 31, 2006 and January 31<sup>st</sup> of each year thereafter, any person who sells a stationary diesel-fueled CI engine having a rated brake horsepower greater than 50 for use in an agricultural operation shall provide the following information for the previous calendar year (January 1<sup>st</sup> through December 31<sup>st</sup>) to the Executive Officer of the Air Resources Board:

- (A) Contact Information
  - (i) Seller's Company Name (if applicable);
  - (ii) Contact name, phone number, e-mail address.
- (B) Engine Sales Information (for each engine sold for use in California in the previous calendar year)
  - (i) Make,
  - (ii) Model,
  - (iii) Model year (if known),
  - (iv) Rated brake horsepower,
  - (v) Number of engines sold,
  - (vi) Certification executive order number (if applicable),
  - (vii) Engine family number (if known),
  - (viii) Emission control strategy (if applicable).

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

Except as provided in subdivision (h), by January 31, 2006 and January 31<sup>st</sup> of each year thereafter, all sellers of stationary diesel-fueled CI engines for use in California that have a rated brake horsepower less than or equal to 50 shall provide the following information for the previous calendar year (January 1<sup>st</sup> through December 31<sup>st</sup>) to the Executive Officer of the Air Resources Board:

- (A) Contact Information
- (i) Sellers Company Name (if applicable);
  - (ii) Contact name, phone number, e-mail address.
- (B) Engine Sales Information (for each engine sold for use in California in the previous calendar year)
- (i) Make,
  - (ii) Model,
  - (iii) Model year (if known),
  - (iv) Rated brake horsepower,
  - (v) Number of engines sold,
  - (vi) Certification executive order number (if applicable),
  - (vii) Engine family number (if known),
  - (viii) Emission control strategy (if applicable).

- (4) 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) or paragraph (c)(4) 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 subparagraph (c)(3)(C) or paragraph (c)(5) shall provide emissions and/or operational data to the Executive Officer in accordance with



the requirements of subdivision (f) for purposes of demonstrating compliance.

(5) 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)(2) through (c)(9) shall notify the Executive Officer immediately upon detection of the violation and shall be subject to district enforcement action.

(6) 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, whether or not they have received notice of non-applicability of an exemption from the Executive Officer. 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)(9) 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.

(7) 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.

(8) Reporting Provisions for Exempted Prime Engines

An owner or operator of an engine subject to paragraphs (h)(6) or (h)(11) 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.

(9) 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 hours;
  - (v) hours of operation for all uses other than those specified in clauses (d)(9)(A)(i) through (d)(9)(A)(iv) above;
  - (vi) hours of operation to comply with the requirements of NFPA 25; and
  - (vii) hours of operation to demonstrate compliance with District rules.
- (B) Log entries shall be retained for a minimum of 36 months from the date of entry. Log entries made within 24 months of the most recent entry shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request. Log entries made from 25 to 36 months from most recent entry shall be made available to District staff within 5 working days from request.
- (10) 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:

- (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; and
  - (iii) Diesel PM emission rate of the engine (g/bhp-hr).
- (B) For engines enrolled in an ISC prior to January 1, 2005, the information identified in subparagraph (d)(10)(A) shall be provided to the District by February 1, 2005.
- (C) For engines enrolled in an ISC on or after January 1, 2005, the information identified in subparagraph (d)(10)(A) shall be provided to the District no later than 30 days after the engine is enrolled in the ISC.
- (D) The information shall be updated as necessary to reflect the current inventory of ISC engines and provided to the District upon request.

(E) The owner or operator may identify to the Executive Officer documentation demonstrating that all or part of the information required under paragraph (d)(10) 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 by no later than 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 through 2007 model year engines, inclusive, shall be in compliance by no later than January 1, 2008; and

(D) All post-2007 model year engines shall comply with the requirements of paragraphs (c)(3) or (c)(5) during the applicable model year.

(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:

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

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

<u>1996 and Later Model Year Engines</u>	
<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 meet the emission data requirements of paragraphs (c)(2) through (c)(5):

- (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)(5), 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.
- (g) Test Methods
- (1) The following test methods shall be used to determine diesel PM, HC, NO<sub>x</sub>, 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<sub>x</sub>, 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) Consistent with section 39666(d) of the Health and Safety Code, the District APCO may approve the use of alternatives to the test methods listed in 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, NO<sub>x</sub>, 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 of this rule do not apply to in-use stationary CI engines used in agricultural operations.
  - (4) The requirements specified in paragraphs (c)(2) and (c)(4) do not apply to new stationary CI engines used in agricultural operations
  - (5) 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.

- (6) The requirements specified in subparagraph (c)(3)(C) and paragraph (c)(5) 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.
- (7) 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.
- (8) The requirements in paragraphs (c)(1), (c)(4), and (c)(5) do not apply to any stationary diesel-fueled CI engine used solely for:
  - (A) the training of United States Air Force (USAF) maintenance officers or enlisted personnel, or civilian government employees of the USAF, and identified as Class I Training Equipment in accordance with Air Force Space Command Instruction 21-0114, dated March 27, 2000, which is incorporated herein by reference; or
  - (B) the training of United States (U.S.) Navy personnel, and identified as a shore based trainer that must be made fully compatible with fleet systems both in configuration and design capability in order to fully support fleet training requirements and sustain operational readiness, in accordance with Office of the Chief of Naval Operations (OPNAV) Instruction 1500.51B, dated March 31, 1989, which is incorporated herein by reference; or
  - (C) the training of U.S. Department of Defense (U.S. DoD) students or personnel of any U.S. military branch in the operation, maintenance, repair, and rebuilding of engines, and are required to be similar to those owned or operated by the U.S.DoD or U.S. military services that are used in combat, combat support, combat

service support, tactical or relief operations, or training for such activities; or

(D) the training of United States Army, Army National Guard, Army Reserve and State Military Department personnel, and are identified as land based trainers and equipment that must be made fully compatible with NATO Force requirements both in configuration and design capability in order to fully support Army training requirements and sustain operational readiness, in accordance with DoD Directive 4140.25 dated April 20, 1999.

(9) 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.

(10) 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.

(11) 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, 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.

- (12) The requirements in subparagraph (c)(3)(C) and paragraph (c)(5) do not apply to in-use dual-fueled diesel pilot CI engines that use an alternative fuel or an alternative diesel fuel.
- (13) The requirements in paragraph (c)(1), subparagraphs (c)(2)(C) and (c)(3)(C) and paragraphs (c)(4) and (c)(5) do not apply to dual-fueled diesel pilot CI engines that use diesel fuel and digester gas or landfill gas.
- (14) The requirements in subparagraph (c)(3)(C) and paragraph (c)(5) do not apply to in-use stationary diesel-fueled CI engines that have selective catalytic reduction systems.
- (15) 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*, 1998 edition, as referenced through NFPA 13 - *Standard for the Installation of Sprinkler Systems*, 1999 edition, in the 2001 California Building Code, 24 CCR part 2, vol. 2, chapter 35, Uniform Building Code Standards, all of which are incorporated herein by reference.
- (16) The requirements of paragraph (c)(1), subparagraphs (c)(2)(C) 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.
- (17) Request for Delay in Implementation for Remotely Located In-Use Prime Engines  
Prior to January 1, 2011, the Executive Officer may approve a Request for Delay in Implementation from the provisions of paragraph (c)(5) until January 1, 2011 for any in-use stationary prime diesel-fueled CI engine, provided the approval is in writing and the writing specifies all the following conditions to be met by the owner or operator:
  - (A) The engine is an in-use stationary prime engine; and

- (B) The engine is located more than one mile from any receptor location; and
- (C) The impacts of the emissions from the engine at any receptor location shall result in:
  - (i) a prioritization score of less than 1; and
  - (ii) a maximum cancer risk of less than 1 in a million; and
  - (iii) a maximum Hazard Index Value of less than 0.1.

(18) Request for Delay in Complying with Fuel and Fuel Additive Requirements for In-Use Stationary CI Engines that Have a Rated Brake Horsepower of Greater than 50 (>50 bhp)

The owner or operator of an in-use stationary CI engine may extend the compliance date of paragraph (c)(1), if the owner or operator has demonstrated in writing to the Executive Officer, on or before July 1, 2005, that its existing supply of engine diesel fuel(s), which does not comply with paragraph (b)(6), cannot be depleted by January 1, 2006. Such written demonstration shall include the amount of such non-complying diesel fuel(s) estimated to be available as of January 1, 2006, the bill of lading showing the date of most recent fuel purchase, and the timeframe projected by the owner or operator to deplete the fuel(s).

(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*.