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FOR JUNE 2003 PUBLIC MEETING
DISCUSSION PURPOSES ONLY**

**Proposed Airborne Toxic Control Measure for
New Stationary Diesel-Fueled Compression
Ignition Engines Less Than or Equal To 50
Horsepower**

**California Environmental Protection Agency
Air Resources Board**

June 2003

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PROPOSED REGULATION ORDER

**AIRBORNE TOXIC CONTROL MEASURE FOR STATIONARY DIESEL-FUELED
COMPRESSION IGNITION ENGINES LESS THAN OR EQUAL TO
50 HORSEPOWER**

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

**17 CCR, section xxxxxx Stationary Diesel-Fueled Compression Ignition (CI)
Engine (\leq 50 hp) Airborne Toxic Control Measure.**

(a) Purpose

- (1) The purpose of this airborne toxic control measure (ATCM) is to reduce diesel PM emissions from stationary diesel-fueled CI engines that are less than or equal to 50 horsepower.

(b) Applicability

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

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(c) Exemptions

- (1) The requirements of this section do not apply to portable CI engines or CI engines used to provide the motive power in vehicles.
- (2) The requirements of subsection (e)(1) do not apply to single cylinder cetane test engines used exclusively to determine the cetane number of diesel fuels in accordance with ASTM Standard D 613.

(d) Definitions

For purposes of this section, the following definitions apply:

- (1) "Agricultural Operations" means the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. Agricultural operations do not include activities involving the processing or distribution of crops or fowl.
- (2) "Carbon Monoxide (CO)" is a colorless, odorless gas resulting from the incomplete combustion of hydrocarbon fuels.
- (3) "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.
- (4) "CARB Diesel Fuel" means any diesel fuel that meets the specifications defined in subsection (d)(5) and meets the specifications defined in *Title 13 CCR sections 2281-2282*.
- (5) "Diesel Fuel" means any fuel that meets the American Society for Testing and Materials (ASTM) *D975 – 98, Standard Specification for Diesel Fuel Oils* (dated XX/XX/XXXX), which is incorporated herein by reference. "Diesel Fuel" includes, but is not limited to, No. 1-D, No. 1-D low sulfur, No. 2-D, No. 2-D low sulfur, and No. 4-D diesel fuel oils.
- (6) "Diesel-Fueled" means fueled by diesel fuel, CARB diesel fuel, or jet fuel, in whole or part.
- (7) "Diesel Particulate Filter (DPF)" means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and

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periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

- (8) "Diesel Particulate Matter (PM)" means the particles found in the exhaust of diesel-fueled CI engines which may agglomerate and adsorb other species to form structures of complex physical and chemical properties.
- (9) "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 combinations of the above.
- (10) "End user" means any person who purchases or leases a new stationary diesel-fueled engine having a rated brake horsepower less than or equal to 50 for operation in California. Persons purchasing engines for resale are not considered "end users".
- (11) "Executive Officer" means the executive officer of the Air Resources Board, or his or her delegate.
- (12) "Jet fuel" means fuel meeting any of the following specifications:
 - (A) *ASTM D 1655 – 98, Standard Specification for Aviation Turbine Fuels*; includes Jet A, Jet A-1, and Jet B.
 - (B) *MIL-DTL-5624T, Turbine Fuel, Aviation, Grades JP-4, JP-5, and JP-5/JP8 ST.*
 - (C) *MIL-T-83133D, Turbine Fuel, Aviation, Kerosene Types, NATO F-34 (JP-8) and NATO F-35; NATO F-35 similar to (JP-8).*
- (13) "Location" means any single site at a building, structure, facility, or installation.
- (14) "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.
- (15) "New CI engine" means any diesel-fueled CI engine that has a rated brake horsepower less than or equal to 50 that is sold, offered for sale, or leased for use in California on or after January 1, 2005.
- (16) "Nitrogen Oxides (NO_x)" means compounds of nitric oxide (NO), nitrogen dioxide (NO₂), and other oxides of nitrogen, which are typically created during combustion processes, and are major contributors to smog formation and acid deposition.

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- (17) "Non-Methane Hydrocarbons (NMHC)" means the sum of all hydrocarbon air pollutants except methane. NMHCs are precursors to ozone formation.
- (18) "Particulate Matter" means the particles found in the exhaust of CI engines, which may agglomerate and adsorb other species to form structures of complex physical and chemical properties.
- (19) "Person" shall have the same meaning as defined in Health and Safety Code Section 39047.
- (20) "Rated Brake Horsepower" means the maximum continuous rating for an engine as specified by the manufacturer, based on Society of Automotive Engineers (SAE) test 1349 or a similar standard, without taking into account any deratings.
- (21) "Seller" means any person who sells, leases, or offers for sale any stationary diesel-fueled engine having a rated brake horsepower less than or equal to 50 for sale or lease directly to end users.
- (22) "Stationary CI Engine" means a CI engine, such as an electric power generator set, grinder, rock crusher, sand screener, crane, cement blower, air compressor, and water pump, that is stationary for the purposes of this section because:
- (A) it is physically attached to a foundation, or
 - (B) it remains at the same stationary source for more than 12 consecutive rolling months or 365 rolling days, whichever occurs first, not including time spent in a storage facility at the stationary source, or
 - (C) it is located at a stationary source that operates for at least 3 consecutive or nonconsecutive months per year for at least two years (also referred to as a "seasonal source"), or
 - (D) it is moved from one stationary source to another or one location to another location in the same facility such that, under the totality of the circumstances, the district APCO determines the movement of the engine is an attempt to circumvent the 12 consecutive rolling month requirement in (B) above, or is a replacement engine for any engine falling within (A), (B), (C), or (D) above.
- (23) "Stationary Source" means an emission unit or aggregation of emission units which are located on the same or contiguous properties and which units are under common ownership or entitlement to use. Stationary sources also include those emission units or aggregation of emission units located in the California Coastal Waters. "Emission Unit" means any article, machine, equipment, contrivance, process, or process line which emit(s) or reduce(s), or

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may emit or reduce, the emissions of any air contaminant, except motor vehicles.

(e) Requirements

- (1) Emission Limits for New Stationary Diesel-Fueled CI Engines, Less than or Equal to 50 horsepower (≤ 50 hp).
 - (A) As of January 1, 2005, except as provided in subsection (d), no person shall sell, offer for sale, or lease for use in California any new
 - (B) stationary diesel-fueled CI engine that has a rated brake horsepower less than or equal to 50, unless it s meets all of the following emission performance standards:
 - (i) PM, NMHC, NO_x, and CO Limits: New stationary diesel-fueled CI Engines (≤ 50 hp) must meet the current model year PM, NMHC+NO_x and CO Off-Road Compression-Ignition Engine Standards (Title 13 CCR section 2423).
- (3) Recordkeeping, Reporting, and Monitoring Requirements
 - (A) Except as provided in subsection (c) and by January 1, 2006, and each year thereafter, any seller of one or more new stationary diesel-fueled CI engines having a rated brake horsepower less than or equal to 50 for use in California shall provide the following information to the Executive Officer of the Air Resources Board:
 - (i) Contact Information
 - (a) Sellers Company Name (if applicable)
 - (b) Contact name, phone number, e-mail address
 - (ii) Engine Sales Information (for each engine sold for use in California in the previous 12 month calendar period)
 - (a) Executive Order Number (Certification)
 - (b) Engine Family Number
 - (c) Make
 - (d) Model
 - (e) Rated Brake Horsepower
 - (f) Model Year
 - (g) Emission control strategy (if applicable)
 - (h) Number sold