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FOR MARCH 2003 PUBLIC MEETING
DISCUSSION PURPOSES ONLY**

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

**California Environmental Protection Agency
Air Resources Board**

March 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 require the sellers of stationary diesel-fueled CI engines that are less than or equal to 50 horsepower to:
 - (A) provide the Executive Officer of the Air Resources Board with information on the make and model of engines sold; and
 - (B) only sell stationary diesel-fueled CI engines that are certified to current offroad CI engine standards.

(b) Effective Date

- (1) 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 their 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).

(c) Applicability

- (1) Except as provided in subsection (d), 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.

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(d) 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 this section do not apply to new stationary diesel-fueled CI engines primarily used in agricultural operations¹ that are exempted from permit in accordance with Health and Safety Code Section 42310.

(e) 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.
- (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 (e)(7) and meets the specifications defined in *Title 13 CCR sections 2281-2282*.
- (5) "Diesel Fuel" means any fuel that meets the following specification: *ASTM D975 – 98, Standard Specification for Diesel Fuel Oils*; includes No. 1-D, No. 1-D low sulfur, No. 2-D, No. 2-D low sulfur, and No. 4-D.
- (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.

1) ARB staff is currently working with California agricultural interests to develop an approach to address in-use agricultural engines.

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Periodically, the collected particles are either physically removed or oxidized (burned off) in a process called regeneration.

- (8) "Diesel Particulate Matter (PM)" means the particles found in the exhaust of diesel-fueled CI engines. Diesel PM 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. Examples of diesel emission control strategies include, but are 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) "Executive Officer" means the executive officer of the Air Resources Board, or his or her delegate.
- (11) "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).*
- (12) "Location" means any single site at a building, structure, facility, or installation.
- (13) "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.
- (14) "Nitrogen Oxides (NOx)" means compounds of nitric oxide (NO), nitrogen dioxide (NO₂), and other oxides of nitrogen. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition.
- (15) "Non-Methane Hydrocarbons (NMHC)" means the sum of all hydrocarbon air pollutants except methane. NMHCs are precursors to ozone formation.
- (16) "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.

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- (17) "Rated Brake Horsepower" means the maximum continuous rating for an engine as specified by the manufacturer, based on SAE test 1349 or a similar standard, without taking into account any deratings.
- (18) "Stationary CI Engine" means a CI engine that is
- (A) attached to a foundation, or if not so attached, will reside at the same location for more than 12 consecutive months. Any engine, such as an emergency standby engine, that replaces an engine at a location, and is intended to perform the same or similar function as the engine being replaced, will be included in calculating the consecutive time period. In that case, the cumulative time of all engines, including the time between the removal of the replacement engine, will be counted toward the consecutive time period; or
 - (B) residing 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) moved from one location to another in an attempt to circumvent the stationary CI engine residence time requirements.

The period during which the engine is maintained at a storage facility is excluded from the residence time determination.

Examples of stationary CI engine applications include, but are not limited to: electric power generator sets, grinders, rock crushers, sand screeners, cranes, cement blowers, air compressors, and water pumps.

- (19) "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 may emit or reduce, the emissions of any air contaminant, except motor vehicles.

(f) Requirements

- (1) Emission Limits for New Stationary Diesel-Fueled CI Engines, Less than or Equal to 50 horsepower (\leq 50 hp).

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- (A) Except as provided in subsection (d), no person shall sell, offer for sale, lease, or offer for lease in California any stationary diesel-fueled CI engine that has a rated brake horsepower less than or equal to than 50, that does not meet all of the following emission performance standards:
- (i) PM, NMHC, NO_x, and CO Limits: New emergency stand-by 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 (d) and by January 1, 2006, and each year thereafter, any person who sells a 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 make and model sold 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