

ATTACHMENT 2

**PROPOSED AMENDMENTS TO THE AIRBORNE TOXIC CONTROL MEASURE
FOR STATIONARY COMPRESSION IGNITION ENGINES**

**Proposed Modifications to the Original Proposal Made
Available for Supplemental Public Comment**

Public Availability Date: June 21, 2005

Note: The originally proposed amendments are shown in underline to indicate additions to and ~~striketrough~~ to indicate deletions from the existing regulatory text. The proposed modifications to the original proposal are shown by double underline to indicate additions and ~~double striketrough~~ to indicate deletions.

Amend title 17 California Code of Regulations section 93115 to read as follows:

**Section 93115. Airborne Toxic Control Measure for Stationary Compression
Ignition (CI) Engines.**

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(c) Exemptions

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(21) The operational restrictions in subsections (e)(2)(A)1. and (e)(2)(B)2. for engines located at or near school grounds do not apply to engines located at or near school grounds that also serve as the students place of residence, e.g. boarding schools.

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(d) Definitions

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(13.5) “Date of Acquisition or Submittal” means

(A) For each District-approved permit or district registration for stationary sources, the date the application for the district permit or the application for engine registration was submitted to the District. Alternatively, upon District approval, the date of purchase as defined by the date shown on the front of the cashed check, the date of the financial transaction, or the date on the engine purchasing agreement, whichever is earliest.

(B) For an engine subject to neither a district permit program nor a district registration program for stationary sources, the date of purchase as defined by the date shown on the front of the cashed check, the date of the financial transaction, or the date on the engine purchasing agreement, whichever is earliest.

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(19.5) "Direct-Drive Emergency Standby Fire Pump Engines" means engines directly coupled to pumps exclusively used in water-based fire protection systems.

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(25) "Emergency Use" means providing electrical power or mechanical work during any of the following events and subject to the following conditions:

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(G) the initial launch tracking of United States Department of Defense flight hardware (in parallel with grid power) where the loss of normal power would cause damage to or loss of government facilities and/or flight hardware.

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(34.5) "Health Facility" has the same meaning as defined in Section 1250 of the California Health and Safety Code.

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(36) "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.

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(44) "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:

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2. an engine that was approved by the District for installation for which a district-approved application for a district permit or engine registration for stationary sources was submitted to the District prior to the effective date of this section but is not installed until after January 1, 2005, even though the engine was installed after January 1, 2005;

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6. A model year 2004 or 2005 engine purchased prior to January 1, 2005, for use in California. The date of purchase is defined by the date shown on the front of the cashed check, the date of the financial transaction, or the date on the engine purchasing agreement, whichever is earliest.

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(e) Requirements

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

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

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3. **New Engines:** As of January 1, 2005, except as provided in subsection (c), no person shall sell, offer for sale, purchase, or lease for use in California any new stationary emergency standby diesel-fueled CI engine that has a rated brake horsepower greater than 50 unless it meets the following applicable emission standards, and no person shall operate any new stationary emergency standby diesel-fueled CI engine that has a rated brake horsepower greater than 50, unless it meets all of the following applicable operating requirements and emission standards specified in (e)(2)(A)3. (which are summarized in Table 1):

a. Diesel PM Standard and Hours of Operating Requirements

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

- i. emit diesel PM at a rate less than or equal to 0.15 g/bhp-hr; or
- ii. meet the ~~current model year~~ diesel PM standard, as specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (title 13 CCR, section 2423), in effect on the date of acquisition or submittal, as defined in subsection (d); ~~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

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4. **New Direct-Drive Emergency Standby Fire Pump Engines:** As of January 1, 2005, except as provided in subsection (c), no person shall sell, offer for sale, purchase, or lease for use in California any new direct-drive emergency standby diesel-fueled fire-pump engine that has a rated brake horsepower greater than 50 unless it meets either the emission standards of subsection (e)(2)(A)3. or the emission standards defined in subsection (e)(2)(A)4., 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 applicable operating requirements and emission standards specified in either (e)(2)(A)3. or (e)(2)(A)4.

a. Standards and Hours of Operating Requirements

II. General Requirements: New direct-drive emergency standby diesel-fueled fire-pump engines (>50 bhp) shall, upon District approval of installation:

- i. meet the Tier 2 emission standards specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (title 13 CCR, section 2423) until 3 years after the date the Tier 3 standards are applicable for off-road engines with the same maximum rated power. At that time, new direct-drive emergency standby diesel-fueled fire-pump engines (>50 bhp) are required to meet the Tier 3 emission standards, until 3 years after the date the Tier 4 standards are applicable for off-road engines with the same maximum rated power. At that time, new

direct-drive emergency standby diesel-fueled fire-pump engines (>50 bhp) are required to meet the Tier 4 emission standards; and

ii. not operate more than the number of hours necessary to comply with the testing requirements of the National Fire protection Association (NFPA) 25 – "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems," 1998 edition, which is incorporated herein by reference. This subsection does not limit engine operation for emergency use and for emission testing to show compliance with (e)(2)(A)4.

b. The District:

i. may establish more stringent diesel PM, NMHC+NOx, HC, NOx, and CO emission rate standards; and

ii. may establish more stringent limits on hours of maintenance and testing on a site-specific basis; and

iii. shall determine an appropriate limit on the number of hours of operation for demonstrating compliance with other District rules and initial start-up testing.

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

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a. Diesel PM Standard and Hours of Operation Limitations

I. General 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. The District may approve up to 20 additional hours per year for the maintenance and testing of such in-use emergency standby diesel fueled CI engines operated at health facilities. This subsection does not limit engine operation for emergency use and for emission testing to show compliance with (e)(2)(B)3.

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 (e)(2)(B)3.a.II. This subsection does not limit engine operation for emergency use and for emission testing to show compliance with (e)(2)(B)3.

- II. The District may allow in-use stationary emergency standby diesel-fueled CI engines (> 50 bhp) to operate more than 30 hours per year for maintenance and testing purposes on a site-specific basis, provided the following limits are met:
 - i. Up to 40 annual hours of operation are allowed for maintenance and testing purposes at a health facility if the diesel PM emission rate is greater than 0.15 g/bhp-hr but less than or equal to 0.40 g/bhp-hr.
 - ii. 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.
 - iii. 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.

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

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

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- 1. 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 diesel PM certification~~ standard, as specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (title 13 CCR, section 2423), in effect on the date of acquisition or submittal, as

~~defined in subsection (d) off-road engines of the same maximum rated power (title 13, CCR, section 2423), whichever is more stringent;~~

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

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

TABLE 5: SUMMARY OF THE EMISSION STANDARDS FOR NEW STATIONARY DIESEL-FUELED CI ENGINES > 50 BHP USED IN AGRICULTURAL OPERATIONS (SEE SUBSECTION (e)(2)(E))		
Horsepower Range (hp)	DIESEL PM	OTHER POLLUTANTS
	DIESEL PM STANDARDS (g/bhp-hr)	HC, NO_x, NMHC+NO_x, AND CO STANDARDS (g/bhp-hr)
<u>Ag Pump Engines All Applications Other Than Generator Set Operations</u> >50 to < 99	<0.30 ¹ OR <u>Off-Road CI Engine Certification Standard for an off-road engine of the same maximum rated power, whichever is more stringent</u>	Off-Road CI Engine Certification Standard for an off-road engine of the same model year and maximum rated power, or Tier 1 standard for an off-road engine of the same maximum rated power. ¹
<u>Ag Pump Engines All Applications Other Than Generator Set Operations</u> >99 to < 175	<0.22 ¹ OR <u>Off-Road CI Engine Certification Standard for an off-road engine of the same maximum rated power, whichever is more stringent</u>	
<u>All other Ag Generator Set Engines</u> >50	<0.15 ¹ OR <u>Off-Road CI Engine Certification Standard for an off-road engine of the same maximum rated power, whichever is more stringent.</u>	

1. Prior to January 1, 2008, these limits shall not apply to engines sold from one agricultural operation to another ~~approved for installation prior to January 1, 2005~~ and funded under State or federal incentive funding programs, as specified in (e)(2)(E)2.

a. Diesel PM Standard:

- I. New agricultural stationary diesel-fueled CI ~~engine~~ engines used in all agricultural operations except generator set applications with a maximum rated horsepower greater than 50 but less than or equal to 99 shall emit no more than 0.1530 g/bhp-hr diesel particulate matter (PM) limit or shall meet the ~~current~~ standards, as specified in the Off-Road Compression Ignition Engine 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), in effect on the date of acquisition or submittal, as defined in subsection (d); whichever is ~~lower~~ more stringent; and
- II. New agricultural stationary diesel-fueled CI ~~engine~~ engines; used in all agricultural operations except generator set applications with a maximum rated horsepower greater than 99 but less than 175 shall emit no more than 0.22 g/bhp-hr diesel particulate matter (PM) limit or shall meet the ~~current~~ standards, as specified in the Off-Road Compression Ignition Engine 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), in effect on the date of acquisition or submittal, as defined in subsection (d); whichever is ~~lower~~ more stringent; and
- III. New agricultural stationary diesel-fueled CI engines used in generator set applications, with a maximum rated horsepower greater than 50, shall emit no more than 0.15 g/bhp-hr diesel PM, or shall meet the ~~current~~ standards, as specified in the Off-Road Compression Ignition Engine 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), in effect on the date of acquisition or submittal, as defined in subsection (d); whichever is ~~lower~~ more stringent.

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(F) ***Operating Requirements and Emission Standards for New and In-Use Emergency Standby Stationary Diesel-Fueled CI Engines that Have a Rated Brake Horsepower of Greater than 50 (>50 bhp) Used in Demand Response Programs (DRP Engines)***

1. New Emergency Standby Diesel-Fueled CI DRP Engines (>50 bhp)
Operating Requirements and Emission Standards

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- c. Except as provided in subsection (c), no owner or operator 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

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- ii. New DRP Engines enrolled in the RBRP on or after January 1, 2008, shall:
 - aa. meet the more stringent diesel PM standard of either 0.01 g/bhp-hr of diesel PM; or
 - bb. the current model year diesel PM standard as specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power= (title 13, CCR, section 2423) in effect on the date of RBRP enrollment; and
- iii. New DRP Engines enrolled in an ISC on or after January 1, 2005, shall:
 - aa. meet the more stringent diesel PM standard of either 0.01 g/bhp-hr diesel PM; or
 - bb. the current model year diesel PM standard as specified in the Off-Road Compression Ignition Engine Standards for off-road engines with the same maximum rated power (title 13, CCR, section 2423) in effect on the date of ISC enrollment; and

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

As of January 1, 2005, except as provided in subsection (c), no ~~owner or operator~~ person shall sell, offer for sale, or lease for use in California any stationary diesel-fueled CI engine that has a rated brake horsepower less than or equal to 50, unless the engine meets the ~~current~~ Off-Road Compression Ignition Engine Standards (title 13, CCR, section 2423) for PM, NMHC+NOx,

and CO for diesel off-road engines of the same maximum rated power. (These requirements are summarized in Table 6.)

TABLE 6 : SUMMARY OF THE EMISSION STANDARDS FOR STATIONARY DIESEL-FUELED CI ENGINES ≤ 50 BHP (SEE SUBSECTION (e)(3))
DIESEL PM STANDARDS, NMHC+NO _x , AND CO STANDARDS (g/bhp-hr)
Current Off-Road CI Engine Certification Standard for an off-road engine of the same model-year and maximum rated power.

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(4) Recordkeeping , Reporting, and Monitoring Requirements

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(D) Demonstration of Compliance with Emission Limits

1. Prior to the installation of a new stationary diesel-fueled CI engine at a facility, the owner or operator of the new stationary diesel-fueled CI engine(s) subject to the requirements of section (e)(2)(A)3., (e)(2)(A)4., (e)(2)(C)1, ~~or (e)(2)(E)(1), or (e)(2)(F)1.c.~~ shall provide emission data to the District APCO in accordance with the requirements of subsection (h) for purposes of demonstrating compliance.
2. By no later than the earliest applicable compliance date specified in subsections (f) or (g), the owner or operator of an in-use stationary diesel-fueled CI engine(s) subject to the requirements of subsection (e)(2)(B)3., ~~or (e)(2)(D)1, or (e)(2)(F)2.c.,~~ shall provide emissions and/or operational data to the District APCO in accordance with the requirements of subsection (h) for purposes of demonstrating compliance.

(E) Notification of Non-Compliance

Owners or operators who have determined that they are operating their stationary diesel-fueled engine(s) in violation of the requirements specified in subsections (e)(1) or (e)(2) shall notify the district APCO immediately upon detection of the violation and shall be subject to district enforcement action.

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(f) Compliance Schedule for Owners or Operators of Three or Fewer Engines (> 50 bhp) Located within the District

- (1) All owners and operators of three or fewer engines located within the District, who will meet the requirements of subsections (e)(2)(B) solely by maintaining or reducing the current annual hours of operation for maintenance and testing, shall be in compliance with the annual hours of operation limits ~~by no later than beginning~~ January 1, 2006.

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(g) Compliance Schedule for Owners or Operators of Four or More Engines (> 50bhp) Located within the District

- (1) All owners and operators of four or more engines located within the District, who will meet the requirements of subsections (e)(2)(B) solely by maintaining or reducing the current annual hours of operation for maintenance and testing, shall be in compliance with the annual hours of operation limits ~~by no later than beginning~~ January 1, 2006.

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(h) Emissions Data

- (1) Upon approval by the District APCO or the Executive Officer, the following sources of data may be used in whole or part to meet the emission data requirements of subsections (e)(2)(A) through (e)(2)(~~E~~F):
 - (A) off-road engine certification test data for the stationary diesel-fueled CI engine,
 - (B) engine manufacturer test data,
 - (C) emissions test data from a similar engine, or
 - (D) emissions test data used in meeting the requirements of the Verification Procedure for the emission control strategy implemented.
- (2) Emissions testing of a stationary diesel-fueled CI engine, for purposes of showing compliance with the requirements of subsections (e)(2)(A) through (e)(2)(~~E~~F), shall be done in accordance with the methods specified in subsection (i).

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